DOCUMENT RESUME

ED 358 820 IR 016 100

AUTHOR Evans, Terry, Ed.; Juler, Philip, Ed.
TITLE Research in Distance Education: 2. Revised Papers from the Research in Distance Education Seminar (2nd, Geelong, Victoria, Australia, 1991).
INSTITUTION Deakin Univ., Geelong (Australia). Inst. of Distance Education.
REPORT NO ISBN-0-7300-2012-6
PUB DATE 92
NOTE 224p.; For the 1989 seminar papers, see ED 342 383.
PUB TYPE Collected Works - Conference Proceedings (021)

EDRS PRICE MF01/PC09 Plus Postage.
DESCRIPTORS Adult Development; College Students; Computer Assisted Instruction; Conference Papers; Constructivism (Learning); Disabilities; *Distance Education; *Educational Research; Epistemology; Foreign Countries; Higher Education; Nontraditional Education; Research Methodology; Research Problems; Student Participation; *Telecommunications
IDENTIFIERS *Australia; Research Teams

ABSTRACT

Nineteen papers concerning various aspects of distance education and distance education research are presented in this document. The papers are: (1) "Introduction, Celebrating Difference in Research in Distance Education" (Terry Evans); (2) "Discourse or Discord? A Dilemma of Distance Education" (Philip Juler); (3) "Reconceptualising Distance Education" (Garry Gillard); (4) "Constructivist Epistemology and Its Implications for Contemporary Research in Distance Learning" (Olugbemiro Jegede); (5) "Distance Education: Researching Formations" (David Harris); (6) "Revealing Links: Post-Fordism, Postmodernism and Distance Education" (Mick Campion); (7) "Privileging Others and Otherness in Research in Distance Education" (Richard Guy); (8) "Openness in Distance and Higher Education as the Social Control of People with Disabilities: An Australian Policy Analysis" (Christopher Newell and Judi Walker); (9) "Theorising Adult Change and Development through Research in Distance Education" (Alistair Morgan); (10) "Life Course Analysis and Research in Distance Education" (Nick C. Farnes); (11) "A Method for Assessing Student Use of Study Notes" (Stephen Relf and Terry Geddes); (12) "Research in Teleconferencing: Proximics and Student Participation" (Mohammed Razha Rashid, Omar Majid, Abdul Rahim Ibrahim, and Mohammed Ridzuan Nordin); (13) "Student Attendance and Costs of On-Campus Commitments for Distance Education Students" (Eve Cuskelly and John Dekkers); (14) "Computers as Distance Education Research Tools" (Lin Thompson); (15) "Language Learning for Off-Campus Students" (James Butare-Kiyovu); (16) "Creative Conflict Theory and Postgraduate Research in Distance Education" (Ernst Ralf Hintz); (17) "Distance Education: Targeting the Primary Producer and Computer Technology" (Robin Pilcher and Ross Wilson); (18) "Alternatives to Residential Schools: Empowering Students To Succeed at Home" (John Eiseman and Mary Jane Mahony); and (19) "Reflections on Team Research in Distance Education" (David Kember, Tammy Lai, David Murphy, Irene Siaw, Julianne Wong, and K. S. Yuen). (Contains 247 references.) (SLD)

# Research In Distance Education 2



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Revised papers from the second Research in Distance Education seminar, [illegible] 1991

# *Research In Distance Education 2*

Revised papers from the second Research in Distance Education seminar, Deakin University 1991

Edited by Terry Evans & Philip Juler


Institute of Distance Education

Published by the Institute of Distance Education,
Deakin University
Distributed by Deakin University Press,
Deakin University, Geelong, Vic. 3217
First published 1992



Printed by Deakin University Printery
ISBN 0 7300 2012 6

# Contents

Chapter 1

# Introduction: celebrating difference in research in distance education

**Terry Evans**

THE 1990s HAVE given the world's citizens a feeling of social, political and economic turbulence. Although there have been granitic islands of conservatism and tradition, most ideological landforms have been eroded and reformed with a speed and character which belies their pasts. Forms of distance education are influenced by this continuing turbulence and, indeed, are playing a part in the reformation processes which are taking place locally, regionally, nationally and internationally. As practitioners and researchers in particular, we can easily be focussed on our local circumstances as we worry about the changes which constantly require our increasing efforts. There is enormous energy in distance education these days, but there is also exhaustion; an exhaustion induced by politicians, bureaucrats and policymakers who do their frenetic best to rebuild and reform their nations to cope with the global turbulence.

Distance education, as part of any nation's educational fabric, is being called upon to do more, more efficiently and more diversely than ever before. The people who learn through distance education these days are also increasingly diverse. No longer are they 'marginal' people doing 'second-best' correspondence courses in isolated circumstances. Nowadays distance education can be anything from mass to 'boutique' education. It can be for literacy, agricultural or health education in developing nations, and for mid-career professional development among the burgeoning middle classes. It can also provide school subject diversity and choice for children, and workplace education for the 'restructuring' working classes. Within and beyond these examples, distance education is also expected to provide a more equitable form of access to education for people whose circumstances or disabilities have often made other forms of education difficult or impossible.

In the course of such global and local changes to the uses of distance education there is a continuing reconfiguring of distance education itself. The cumbersomeness of the term 'distance education' and the philandering of its bedfellow 'open learning' leave people outside the field mystified as to what they mean.

Education more broadly is always under challenge and is currently adapting itself to the demands of the contemporary circumstances. It is very difficult to see what these re-formations will mean for distance education, open learning and other forms of education. Sooner or later, one can envisage an implosion as each re-forms within the emerging circumstances using technologies and approaches to teaching and learning which have come from different education sectors. Moreover, there is the possibility that new borders may be drawn around different aggregations of educational practice and student population.

Research has an important but difficult place in the changes which surround distance education. One the one hand the nature of research is that it requires time and resources for planning, fieldwork, analysis and writing up. On the other hand, time and resources are being concentrated into surviving and keeping pace with the turbulent demands of contemporary educational worlds. Not only does research require time for its implementation, but the processes of reflection and change to policies and practices which follow also demand time. It appears as if research processes need to adapt to/with the new circumstances and technologies; perhaps a reformed 'action research' will emerge in which the cycle of reflection, research and action is compressed into a whirl of bureaucratic/democratic, information and change?

Research in distance education is both well and poorly placed to adapt to the changing circumstances in which we find ourselves. It is well placed because distance education does not have the established research structures of other forms of education which means that it has less tradition to respect and remake and fewer traditionalists to resist reforms of their research fields. However, it also means that there has not been a powerful and resourceful research seam in distance education culture. In those parts of the world where distance education has a long history there have been people who have endeavoured, individually or through organisations, to promote research and publication in the field. However, these cannot be said to constitute even one tradition of research in distance education, let alone several competing traditions as one can see in education more broadly. Some of the distance education institutions, especially the larger ones in both developed and developing nations, have forms of institutionalised research into their practices and procedures which contribute to research in distance education. However, their contributions are heavily circumscribed by their institutional needs and they rarely make significant contributions to knowledge in the field.

Postgraduate research students can be viewed as an emergent band of pioneers who make significant contributions. However, they are too few in number at present to have more than occasional effects on research, theory and practice in distance education. There are alsc the individual scholars of distance education who through their publications and other contributions have occasionally substantial, but usually minor, effects on research, theory and practice.

Gradually, through the various distance education organisations, the major journals, the computer-based networks and databases, and through the research groups throughout the world, research in distance education is being articulated in order to make it an important element of the field. The Research in Distance Education (RIDE) seminars at Deakin University can be seen as an Australian contribution to this global movement towards the articulation of research in distance education.

The first seminar, *RIDE '89*, was held in November 1989 and was intended principally as an opportunity for people in Australia to meet and discuss their work and interests in research in distance education. Over forty people attended *RIDE '89* including a few overseas participants who provided an invaluable connection with the international distance education community. A selection of revised papers from the seminar was published in a book entitled *Research in Distance Education 1 (RIDE 1)* which is the predecessor to the present volume. These books are intended to allow others to share in the presentations, discussions and debates of the *RIDE* seminars.

*RIDE '91* clearly benefitted from the success of *RIDE '89*. Over sixty people attended in November 1991 and several potential latecomers were turned away as we attempted to keep the seminar to a size which would enable the forms of interaction that a seminar implies. This representation from the Australian distance education community was very strong and the overseas participants came from ten different nations. We were particularly grateful to the *British Council* which provided David Harris from the UK with a travel grant to visit Australia and to attend *RIDE '91* as part of his itinerary. The *British Council's* commitment to distance education was also in evidence during 1991 as they provided a large exhibition of distance education materials from the UK which was displayed at venues throughout Australia.

In addition to the overseas participants, an audioconference presentation was held with a research group in Hong Kong. Obviously, the demand for events such as *RIDE* seminars is high in Australia and, by virtue of the overseas participation, one can conclude that internationally people are keen to meet and discuss their research in distance education. There are a few other other research in distance education seminars and conferences which have occurred occasionally around the world. Perhaps we are on the brink of a new era in distance education and open learning where research and theory will form an important core to their development.

At the *RIDE* seminars we endeavour to keep the focus specifically on research so as to distinguish them from the broader national and international conferences on distance education. We encourage everyone who attends to participate in some form. Apart from the audioconference, there were paper presentations, accounts of research in progress and postgraduate research roundtables, a

debate on research and policy, playlets and workshops. As with *RIDE '89*, we undertook to involve people more widely in the experience through the production of the present book of selected and revised papers, *Research In Distance Education 2 (RIDE 2)*. Summaries of chapters in the *RIDE 1* book are available on the International Centre for Distance Learning (ICDL) database and the full text is about to be included. We anticipate that this book will be similarly accessible.

As this book and the *RIDE 1* book show, there are diverse research interests, approaches and topics being pursued in distance education. This is a matter to celebrate, especially as people are not only bringing their diverse interests to bear, but also drawing theoretical perspectives into their research from a range of fields and disciplines not merely beyond distance education but beyond education as well. This means that there is a powerful potential for everyone to learn of different approaches and perspectives. For some this is a little troubling as they are confronted by so much with which they are unfamiliar, but for others it is challenging and exciting as they make the connections with their own thinking and work.

For Philip Juler and myself, as editors the diversity of *RIDE2* is also both troubling and exciting. We are aware that we have chapters which span the differences and yet, as editors, we have the ability to select and group chapters together as if there were explicit themes. So it should be declared that we have ordered the chapters in a way which conforms to our understanding of the resonances between particular contributions. It is a matter of conjecture as to whether the authors, let alone you the reader, appreciate these resonances. If you don't, we hope you can celebrate the differences.

Further information on *RIDE* seminars and publications can be obtained by contacting:

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Chapter 2

# Discourse or discord? A dilemma of distance education.

**Philip Juler**

DEAKIN UNIVERSITY, LIKE the United Kingdom Open University (UKOU), has traditionally made use of the 'course team' approach to developing distance education materials in the belief that mutually critical interactions among team members will result in better materials than would arise in other ways. Thus, there is a belief that a text, for example, is better learning material if it actually embodies the contributions of more than one 'author'; that students will benefit more from the outcome of a recent discourse than from the ideas of a single author which, it is assumed, have not been subjected to the same critical analysis.

Moreover, the people who form this critical community will include not merely university staff but external consultants and, in some cases, students as well.

Although this 'course team' approach is very similar to other forms of peer review, its focus is not limited to the editorial criteria of refereed journals. It necessarily includes educational factors as well because the mere fact that an author's ideas have been published in relevant and respectable journals does not mean that they will make good educational material.

## Course material qualities

It is part of the lore of distance education—almost folklore perhaps—that certain features of printed text are desirable if it is to be 'good' for distance education. Lists of typographical, linguistic, organisational and educational features have been drawn up for the attention of those people involved in development and production of course materials (for example, Parer 1988, Donnan 1989). Similar lists are also available for those who select and use textbooks in face-to-face teaching (for example, Crismore 1989, Hemmings & Battersby 1989) and, not altogether surprisingly, the items in the two kinds of lists are much the same. What is surprising is that the researchers who write about textbooks seem

generally to be unaware of the parallel research into the use of text in distance education. For example, Lakoff (1982) contrasts the use of an oral style of writing to represent originally oral discourse with the use of the same oral style simply for its own sake:

> More striking is the use of oral devices in nonfiction, nondialog narrative exposition. Here the line between oral and written communication blurs irrevocably. We might expect this from inexpert writers...Rather it shows up only in the works of writers of great subtlety and skill, who deliberately obscure the age-old distinctions—and why, indeed, would they do that, unless there were some reward? In a writing-based culture, there is of course no discernible reward, and this is why we have encountered writings of this type only recently (p. 254).

Lakoff cites the work of Tom Wolfe as 'representative of the genre, indeed its most striking exemplar' and, after quoting a few extracts, observes that:

> Examples could be mutiplied at will to illustrate the really shocking change that Wolfe has visited on English narrative prose convention. What is surprising is that it works. Purists may complain, but Wolfe has had a profound impact as a contemporary stylist. My feeling is that a style such as his—while it is perhaps the style of tomorrow, rather than today—could not have been utilized, however experimentally, until very recently (p. 255).

This kind of comment is striking in itself given that Börje Holmberg was advocating a conversational style in correspondence teaching over thirty years ago (Holmberg 1960). It also lends support to the view that the qualities of good distance education text are not merely the usual add-on features—if they are those at all—but intrinsic to it. They inhere in the nature of the writing itself which must therefore be a work of some considerable art. In my own distance teaching I have emphasised the point that some writers, whether novelists, journalists or teachers, have the ability to produce gripping and influential prose without any of the more explicit typographical and other features which are said to be necessary to promote interaction and therefore learning. I am not suggesting that we should all revert to continuous prose unrelieved either by headings or activities as there is no doubt that many students find those elements useful. What I do suggest is the adoption as often as possible of the narrative form—the story—which Bartlett (1987), for example, when reporting on curriculum research, considered likely to be most engaging, and therefore also most effective for learning purposes.

> The aim...is to construct a meaningful totality out of scattered events. Events are selected and ordered for their relevance and emphasis in telling the story, for understanding what is happening and for describing what conditions and mechanisms allow what is happening to happen (p. 5).

It seems probable that this conclusion is adaptable to a wide range of learning material, and especially that kind which employs a case study approach. Such

narrative is not merely chronicle, though it may be basically chronological, since the description of events is usually subordinated to some hermeneutical process which both selects and interprets what is to be narrated. Thus there will be two hermeneutics at work: the one used by the author in engaging with the 'facts' as the account is written; the other used by the readers who enter the world which the author has constructed in the text and who, in turn, construct their meanings from it.

The qualities which make story effective are no doubt somewhat elusive, being the subject of much literary debate, but at least some of them are shared with everyday conversation. Holmberg has provided a list of the key qualities of his 'guided didactic conversation' (1989, p. 44), in which he advocates a number of overt interaction strategies together with a personal, colloquial style of writing, but he also includes the notion of 'moderate information density'. In story telling this can be achieved by repetition, a practice which is common in children's literature where particular sounds, words and phrases may be repeated both exactly and frequently.

Consider, for example, the creation narrative in the first chapter of the biblical book of Genesis which can quite reasonably be treated as 'quasi-historical'. In its manuscript form it had no headings or activities, and it was not divided into convenient numbered verses as it is in most English translations. Yet it is a powerful piece of writing which continues to compel attention and to challenge opinion even after centuries of international scholarship have been devoted to it. We may well ask what gives it this quality? One answer to this is offered by Gibson (1981):

> ...that the chapter has its origin in the education of children...It is, of course, instruction through the medium of a story, but is that not the way we still use with children, because it is the way best suited to them? (p. 58).

Gibson quotes at some length from another author's comparison of this story with well-known nursery rhymes and other similar works in which he draws attention to 'patterned repetition' as a favourite story-telling technique where:

> ...the panels are plainly designed to break up the narrative so that the children listening know where they are, and to slow down the flow of information to their speed of comprehension (p. 59).

This redundancy as a control method is characteristic of oral tales and children's literature and springs perhaps from an age when adults' and children's stories were much closer than they are today. However, neither its antiquity nor its childhood associations should prevent us using such an oral style if it helps us to write genuinely educational stories. In fact, there are good grounds for believing that the characteristics which make good stories, and thence good educational writing, are the same as those which make good conversation.

In the writing of most distance education texts, and especially those for adults, it is not exact repetition of the kind outlined above which is important but the repetition of ideas, usually in different words, so that what may not be well understood when expressed in one way is better understood if expressed in another way. In certain respects this form of repetition underpins the use of those assignments where students are expected to re-express in their own words the ideas they have been studying, and then to read yet other formulations of those ideas in sample answers.

There are many academics, however, to whom the idea of writing in such a conversational way seems to involve too great a subjectivity, too little precision and too much padding. It is interesting, therefore, to draw on the results of some modern sociolinguistic studies which elucidate the important features of a conversational style and support its value, not just in writing for students but in all attempts at written communication.

Tannen (1989), in dealing with this conversational style has described a number of its features—which she calls as 'involvement strategies'—as 'the basic force in both conversational and literary discourse by means of their sound and sense patterns' (p. 17). They are the means by which people are drawn into conversing, either face to face or through a written text. Those strategies which are based on sound operate by a process akin to that of rhythmical involvement with music which seems to compel some people to 'keep time' by conducting, jigging, or even whistling; whereas those based on sense operate by drawing people into the making of meaning. Tannen lists a number of these involvement strategies which have been identified as important in both speech and writing, but eventually concentrates on *repetition, dialogue* and *imagery* having concluded that, 'Scenes and music, then, and the emotion associated with them, are the dynamics by which linguistic strategies create meaning and involvement in discourse' (p. 35).

On this view, good educational writing will not use the terse, impersonal kind of expression so characteristic of learned articles and textbooks. Rather it will deliberately introduce various forms of repetition; it will make use of direct quotations, and in some cases be cast in speech-like form; and it will use descriptive and figurative language to engage the imaginations of the readers.

This convergence between spoken and written 'texts', whether in distance education or elsewhere, seems to sit uneasily with the experience of Gillian Bouras (1990), an Australian writer who lives with her husband and children in Greece. Her encounter with some surviving members of a traditionally oral culture, including a woman called Yiayia, provoked the following observation:

> ...for most of my life my ignorance of orality has been profound, so profound that it has taken years to see that literacy itself is a kind of exile, cutting 'educated' people off from the protean richness of superstition and folklore,

> from often unsuspected beauty and adventure, surely a thought worth pondering in this International Literacy Year. Such people are also separated, as by a chasm, from the mentality of orality. When Yiayia says, protestingly, 'But that person can't be on television today, she died ten days ago', I laugh and shake my head, but then I remind myself that for the inhabitants of an oral society, memory, recollection, methods of recording and communicating are all different. We are forever separated, Yiayia and I, and not only by age, place of birth and different mother-tongues. More significant, perhaps, is the notion that she is an inhabitant of an island I can never reach, but can only glimpse from afar as the river of modern life, literacy, bears me slowly away (Bouras 1990, p. 9).

By its very humanness, this episode might impress us as true—indeed, it impressed me and I am sure that there is truth in it—however, there are numerous modern studies of orality and literacy, and of the relationship between them, which would not support such a pessimistic view, not least because some people seem caught in currents which are carrying them in the opposite direction—in particular the sociolinguists and distance educators referred to earlier who advocate a conversational style in writing. Indeed, it is ironical that Bouras sees an ever increasing 'distance' between orality and literacy at the same time as distance education practitioners see oral qualities in written texts as one way to overcome the 'distancing' of learners.

But what more, if anything, can we learn from the situation depicted by Gillian Bouras? Surely, it reminds us among other things of the need to understand the oral cultures in which conversation first arose—especially aspects she mentions like memory and recollection—if we are to understand the nature of conversation itself. Only when we have understood the essence of conversation will we be able to apply its characteristics to our written material in the most appropriate ways.

## The discourse model

It is because of these 'conversational' features of good educational writing that I proposed the 'discourse model' in a previous article (Juler, 1990). It offered a way of understanding how interaction and independence can go hand in hand—an idea which is often thought to be a contradiction in terms—and I emphasised the importance of text in achieving this in distance education. I now wish to examine the application of the model to the world of text in rather more detail.

The basic concept in the model was illustrated by the example of a conference in which the overall discourse occurs through a variety of activities with different

degrees of formal structure. Typical among these are:

- Keynote addresses—fairly formal, didactive sessions with little or no opportunity for most people to do much more than listen.
- Organised discussion groups—which should give opportunity for everyone to participate, although this can be limited by the way the group is chaired and by the presence of a few dominant figures.
- Spontaneous discussion—potentially the greatest opportunity for equality in participation, but still subject to distortion by the nature and behaviour of the people concerned.

Thus, the opportunity for each person to participate, and in doing so to adopt a variety of roles in the discourse—asking or answering questions, advancing or defending opinions, and so on—is limited not merely by the degree of formal structure, but also by the vagaries of chance association.

## Written discourse: 'In the beginning...'

So far as study materials are concerned, before the course team or editorial review panel has any say, the author has, in fact, been engaging in all sorts of academic discourse and, in particular, when constructing a text has drawn on—interacted with—a variety of people, using their ideas as primary sources. Consequently, because those primary sources have drawn on other people's ideas, the author has in fact drawn on secondary sources as well, and so on.

Thus, a text is a kind of discourse in itself, but the voices which occur in it may be strident—obvious quotations—or subdued—paraphrases or allusions—so that the reader is not always sure as to who is speaking or how much influence they are exerting. And there is no doubt that some readers with particular background knowledge will suspect that some voices have been deliberately and unjustly denied a hearing, or at least that what they say has been distorted by selective quotation. Moreover, quite apart from any such conscious suppression or selection, there is the unfortunate possibility that some sources, especially secondary ones, will simply not be understood by the author so that, while their voices are heard, what they say may be not altogether to the point; or worse, it may be totally irrelevant; or worst of all, it may be thoroughly misleading.

In terms of the model, the various sources may be interacting but it is an artificial kind of interaction, and they are certainly not independent because they are constrained by the author's conscious or unconscious hermeneutic. Tannen (1989), observed this hermeneutical process at work when American people criticised each other, and she commented:

> ...I am claiming that when a speaker represents an utterance as the words of another, what results is by no means describable as 'reported speech'. Rather it is constructed dialogue. And the construction of the dialogue represents an active, creative, transforming move which expresses the relationship not between the quoted party and the topic of talk but rather the quoting party and the audience to whom the quotation is delivered (p. 109).

She goes on to point out on the basis of specific cases of criticism that merely verifying a particular form of words as correctly reported does not ensure that the quoted person's mean*ing* has been conveyed. Moreover, the fact that a person is reported to have said something in a form of words which they did not in fact use does not make the person doing the reporting a liar.

> Rather, the point is that the spirit of the utterance, its nature and force, are fundamentally transformed when the object of the criticism is present rather than absent. *This is a particular instance of the general phenomenon that changing the context of an utterance changes its meaning* (pp. 109f). [My italics]

In practice, this general principle creates a problem for people who use a variety of sources, both primary and secondary, in creating educational materials, especially those of us who work in distance education. For example, the meaning of the quotation I have just used may have changed because of its new context, but can I be accused of bias in the way I have reported it? Or will my readers, particularly those who may actually refer to the original, become confused about its 'meaning' because of the way I have used it? We have an obligation to engage in a critical review process which tries to minimise the possibility of such bias and confusion, and to point out to students any cases in our own materials where this problem might arise.

Obviously, the more people who are involved in this review process—the bigger the course team—the more likely it is that one or other of them will be familiar with each particular primary or secondary source and so be able to suggest how these forms of distortion may be prevented. As the well known English proverb says: 'There is safety in numbers'!

## Quotation and reference: '...was the Word'

What prompted me to write this paper was my reading a book by J. C. Edwards (1990) in which he attempted a kind of dialogue between two philosophers, Heidegger and Wittgenstein, about the perceived tendency of philosophy to 'self-destruct', a tendency which he termed 'philosophical nihilism'. In doing this he quoted as his primary source Heidegger who in turn used a quotation from the New Testament: 'In the beginning was the Word'—which is part of the first verse of John's Gospel to be exact—which thus became for Edwards a

secondary source. In fact, I have used the same 'text'—using that term in the sense that a preacher might—in creating my previous two headings! It was clear from the outset that for both Heidegger and Edwards this quotation was of profound significance, but I began to wonder if either of them was fully aware of its context, either in its biblical setting or in terms of the background of scholarly study which has been devoted to it. As I read further, I realised that they were both very much aware of the contextual issue and that it was proving to be a major problem for them, though in different ways for each individual.

The problem arose because the quotation contains a metaphor—in which, as I understand it, the Greek word Logos which is translated as 'the Word' refers fundamentally to the utterance of God, and in this case is also used to denote a divine person—but Heidegger wanted to capitalise on certain aspects of the metaphor while deliberately excluding other aspects. In fact, he wanted to maintain the notion of some deep, self-existent form of language which underlies, or even gives rise to human expression but, at the same time, he wanted to secularise the word so that any traditional notion of divinity was absolutely excluded.

Heidegger's problem was that for Edwards, just as for me, the attempt to exploit the metaphor in this partial way failed. And it failed because:

> In spite of Heidegger's own acute protests against metaphysics and ontotheology, *Logos* retains *rhetorically* the force of a god; it continues to have the status of a patriarchal *subiectum* from which all human sense and authority unilaterally descends. In his mouth 'language' becomes 'Language'; it is grammatically deified. It does not avail that Heidegger himself would certainly disavow any concrete representation of *Logos* in theological terms; the force, the reality, of the notion is given by the grammar, the rhetoric, the religious drama of Fall and Salvation, one might almost say, within which it is embedded in his work. And that grammar continues ontotheology, in the sense that it continues to refer us beyond ourselves to some single, authoritarian, patriarchal, godlike centre of sense and authority: *die Sprache spricht.*
>
> It does Heidegger no good to struggle, as he does, against the literalization of *Logos* into a name, divine or otherwise, when the whole of his rhetoric bends us in that direction. He is a prisoner, not (as he thinks) of certain philosophically corrupted *words* that must be replaced or refurbished, but of his unconscious acceptance of a particular picture of the grammar, of the language and of life, within which the words must function (Edwards, 1990, p. 226).

There is a fine irony in this since the very aspect of 'the Word' which Heidegger wanted to maintain—its sovereignty in human thought and speech—is what defeats him. The metaphor of 'the Word' which he wanted to shape to his own ends, to the notion of 'primordially speaking language', has objected and refuses to be so constrained.

The problem for Edwards is that, disliking what he believes to be the logical outcome of Heidegger's position, he has set out to defeat him, but, having done so, he likes even less the consequences of his own success. The reason for these dislikes is simply that he confuses the unique, authoritative and gender-neutral concept of 'the Word' with what he describes as 'some single, authoritarian, patriarchal, godlike centre of sense and authority'. He, too, is imprisoned by his own prejudiced view of the metaphor!

It is important to notice here that while the general phenomenon mentioned by Tannen (1989) may be true—that changing the context of an utterance changes its meaning—it does not follow, if Heidegger's attempt is any guide, that we can choose how the meaning will change. It seems that, in the case of metaphor at least, the context from which a quotation is drawn might help it to resist all our efforts to reshape its significance.

Of course, this example raises the question of the way authors use their sources, especially in learning materials, and of how they draw students into a discourse which is truly educational so that the students are made aware of the whole nature of the discourse and enabled to adopt independent positions and to make useful contributions. In dealing with this issue further, I will focus on the use of quotations and references because it seems to be largely unexplored or underexplored territory.

## Uses of quotations and references

Two immediate questions about quotations and references which present themselves are: what are their functions? and how are they used?

The answer to the first question is neatly summed up in one word: authorisation, no matter whether one takes an external or an internal view. In the external case the function is primarily to locate the publication within a larger discourse, to claim the right to speak in a particular community of scholars. In the internal case, the function might be to introduce a topic, to illustrate a discussion point, to support an argument, to give an example for critical analysis, or to provide a text on which to comment.

The answers to the second question are more varied, but typical ways of using quotations and references are: as 'oracles' which stand alone as having supreme authority; as a 'crowd of witnesses' so that, even though each one individually may not amount to much, the sheer number of them will carry considerable weight; and as the 'straw man' or 'aunt Sally' which allows the user to gain prestige by demolishing the opposition.

The authorisation function of quotations and references, however they may be used, is clearly bound up with the issue of textual authority in general so that, as Olson (1989) points out in writing about school textbooks:

> ...the separation of speaker from speech tends to give the speech an authority it would not have if it originated in the mind of the current speaker...But no one seems to have noticed that the same device for managing authority exists in written language...Written texts, among other things, are devices which separate speech from speaker, and that separation in itself may make the words impersonal, objective and above criticism (p. 239).

Olson's assertions about text authority were challenged by Luke (1989) who maintained that 'the authority of a textbook comes, not in virtue of its authorial origin, but in virtue of its having been *authorized* by an administrative source...' (p. 254). Olson, in reply, accepted the notion of social and administrative authorisation but only on an equal footing with the authority of text itself, insisting that 'the pattern of authority in the larger society is reflected in the pattern of authority in the text', and that '...the structure of language and texts is neither subordinate nor superordinate to the social structure' (p. 262). This is a complex issue, but one only has to consider the Australian Constitution to see a text which would have no authority if society chose not to concede it, but which at the same time is invoked as an 'independent' authority by that society in managing its affairs—text and society seem to have mutual authorisation roles.

Extrapolating from Olson's view about the separation—distancing?—of speech from the speaker, it would seem that quotations in written text should be accorded higher status than the text around them! Olson also makes the point that this almost reverential attitude towards textbooks is far more characteristic of schoolchildren than of more highly educated people, but the very fact that he does not document this view is a case in point because it makes me less sure of the accuracy of his statement. In fact, although I cannot deny that more education has made me and many others more sceptical about 'authorities' than we once were, I am convinced that we never entirely lose the tendency to trust more in what is written than in what is spoken. This is partly due to the undoubted fact that many ideas are tested in oral form at conferences and seminars before being committed to paper, and when they are written down it is often only after a long period of critical reflection to which many other people have contributed.

However, there is a problem of the kind raised by Gillian Bouras—whether our own cultural experiences do not in fact 'bear us slowly away' from one another, or even locate us in such different domains that we have neither points nor means of contact at all.

Contributors to this volume, for example, each draw on many other disciplines and contexts so that each contribution is unique. If that is true of a group of

scholars who have at least had the advantage of discussing each others work at an international seminar on distance education, then how much more is it true of all the distance education students who are suddenly confronted by texts of various kinds in which are embedded all sorts of apparent 'connections' or 'pseudo-connections' with other people in other domains, both past and present. We should endeavour to ensure that for our students the experience is as 'conversational' as that described by Deborah Tannen (1989):

> The creation of voices occasions the imagination of alternative, distant, and others' worlds by linking them to the sounds and scenes of one's own familiar world (p. 133)

Indeed, in a further echo of her 'involvement strategies', we should ensure that neither the sound nor the sense of our discourse strikes a discordant note in the ears of our distant students.

Chapter 3

# Reconceptualising distance education

**Garry Gillard**

I HAVE BEEN WORKING recently on a reconceptualisation of what is meant by 'distance education'. I have been labouring in the distance education vineyard for many years now, and for a long time have been conscious of the superiority of many aspects of distance as against conventional education, while at the same time conscious of the scorn with which it is regarded by many conventional teachers in higher education.

I am arguing against, firstly, the tendency, within distance education, to define it in the secondary, oppositional way I describe below, and secondly, the acceptance of the assumptions implied in this procedure, which is commonplace in the practice of the conventional teachers with whom I work. I am arguing for, firstly, a redefinition of distance education in its own right/write and a consequent change in the discourse around it, and also in distance education methodology for a rethinking of the practice of 'externalisation' (which is the dominant paradigm in the practice of external course development at Murdoch University at least), and replacement of this practice with a model which seeks a unique distance-education design, which may then be offered to conventional education. Such a redefinition would have implications, not only for practice, but also for research in distance education, in that changes in the discourses of distance education will inevitably affect the way research questions are framed and answered. Lastly, I seek a change in conventional education practices to incorporate some of the wisdom of distance education thinking.

It could be said that this paper is the product of a meditation on the complex and multi-faceted notion of 'distance', with both its 'good' and 'bad' aspects: as a cause of alienation; as a means of the maintenance of existing power relations; but also as part of a process of improving opportunities for learning; as a starting-point for thinking again about the importance of planning, of the consideration of students' needs and preferences, and about technologies of learning in general. All learners are always already independent learners in a sense: they are all always *at a distance.*

Like a number of people in the distance education field I also work in another academic area, and I do my teaching in the Humanities. And when I encountered there the ideas of Jacques Derrida I realised that I had found the theoretical tools with which to tackle the task of changing the balance, as between distance and conventional education. For it became clear to me, reading Derrida, that the usual perception of distance education is, through an invidious contrast with conventional education, a contrast in which distance education always comes off second best. To make the point clear it was necessary to get together some typical definitions of 'distance education', and then use some key ideas from Derrida's writing to show that there is a false hierarchy in operation, and one which needs to be overturned, not just for the sake of research or the better understanding of distance education, but for the good of all, in that benefits will flow from a recognition of the value of distance education principles.

In this paper, I will use the term 'conventional education' to refer to teaching as it is carried out in the universities, and most typically in the lecture theatre. Other terms used by others for conventional education include 'proximal', 'contiguous' and 'face-to-face'.

My argument is that distance education is not an inferior and regrettable alternative to education on campus, but is in many ways superior, in being prior, more original. I find, however, that distance education is typically defined as alternative and therefore inferior to a conventional education which is seen as originary. So, distance education is defined or named as *non*-contiguous, *exter*nal, *off* campus, *extra*mural (see, Keegan, 1980). It is 'a form of *in*direct instruction' (Peters, cited in Keegan, 1980, p. 16). It is '*not* under the continuous, immediate supervision of tutors present with their students...' (Holmberg, 1977, p. 9). It is done by *correspondence*, at *home*, with the implication that people only study at home—or in the situation in which they spend their days—when they are forced to. In fact, this is commonly turned into a defence of the existence of distance education, and therefore an argument for funding it, that it is unfortunately a necessity. We must presume, we are told, 'the existence of two forms of education which are strictly separable: traditional education based on personal communication and distance education based on industrialised and technological communication' (Keegan 1980, p. 17). And distance education is done, above all, by reading.

It is reading and writing that Derrida is mainly concerned with in *Of Grammatology* (1976), where he draws attention to a philosophy which gives precedence to the *voice*. The voice is taken to be the carrier of the most essential of messages, proceeding as they do on the very breath, which is taken to be at least a metaphor for the soul, if not an essential part of the thing itself. As one commentator puts it: 'It is as though the very airiness of words on the breath, the very transparency of the medium in which spoken signifiers so briefly live,

actually allowed the hearer to look straight through into the speaker's mind' (Harland 1987: 126). When one thinks of the supposed advantages that the lecturer has, though, over the situation of the writer of a distance education text: lecturers are supposed to be able to become aware of feedback from their audiences, giving them the opportunity to rephrase or restate what they are *trying* to say. That is, there is an assumption that the content 'of the lecture' is a given, that it is perfectly homologous with the lecturers' intentions, and that is just a matter of the lecturer finding the right words to put it in. If the message appears not be getting across, then, lecturers will continue to supplement what they have already said until it appears that students have understood. And here is the paradox: if what lecturers give voice to is the essential, why is it also essential that they should be able to—in fact are required to—provide supplements to their speech, that they have never said enough?

Derrida himself uses an analogy from education. He notes that Rousseau's argument (in *Émile*) is that the child is born in a state of perfection, that the *natural* state is a perfect one, and yet that the child must also be educated, subjected to *cultural* production, in order to supplement this supposed perfection (1976, pp. 146–7). So although Rousseau seems to be arguing that nature is better than culture, that it precedes it and supersedes it, it is still necessary to supplement the superior with the inferior.

And there are other supplements in the lecture theatre, as well as the oral type, and they are more pertinent to the present argument. For lecturers typically supplement their oral lectures with writing of many kinds, whether on white or black boards, on overhead projection transparencies or slides, or on pieces of paper given as handouts. It seems that it is usually necessary to supplement the supposedly essential spoken word with the written, as if the former were a very inadequate medium indeed. We might also contemplate what lecturers are actually doing: in many cases they will be *reading*—as opposed to speaking—from their written notes, which they may retain from year to year and use again and again. And for their part students will be also be *writing*, trying to reduce the flux of oral information to a written form that they can make use of. When looked at in this way 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. (And so is distance education, par excellence!) To use another key Derridean term: conventional education always already contains the *trace* of distance education: writing.

For meaning is not as primarily available as might be supposed by the assumptions of the conventional education model. It is more essentially undecidable, deferred; and it differs from what it appears to be, requires supplementation. Derrida invents a term to convey this dual characteristic: by combining the French verbs for 'differ' and 'defer' he creates a new word 'différance' (1973). We might be tempted to say, using our own key term, that meaning is always *at a distance*.

In distance education practice, on the other hand, writing is given precedence, in the broadest sense, including not only the printed word, but graphic materials generally, and *even*, in audiotaped programs, also the inscription of the spoken word, in a form in which it can be *re*-read.

Conventional education can benefit from proximity with distance education practices, as it does in institutions like Murdoch and Deakin Universities (and indeed in Australian distance teaching institutions generally) mainly by the use of materials prepared for distant students. Where an institution teaches in both modes there will often be a desire and a readiness on the part of lecturers to provide materials that they have prepared for external students for the use of those nearer at hand. This will usually cause them to think about what and how they are going to teach sooner than they otherwise might, and to work more systematically. In order to make the most appropriate selection of materials to send external students, lecturers will be looking over their fields well in advance with a view to getting the best from what is available, so that they will be likely to have a better feel for the whole field at the beginning of teaching the unit than they might if they were doing this kind research at the last minute while conducting the teaching of the course. (This is not, however, to discount entirely the possible benefits of serendipity—but that is another matter.)

Obviously also, material that they will actually write themselves to teach external students may be able to be made available to the internal students, whether in the form of complete transcriptions of the lecture or handouts of outline guides. If so, this may advance internal teaching to the extent that the students can come to what would otherwise have been a formal lecture, during which they would have had to record the lecture themselves in their notes, but which now becomes a seminar, at which they can ask enlightened questions and make informed comments, having had time to consider what the lecturer has to say about the matter in question. You could say that the question time at the end of a lecture, usually a hurried and very selective business, is enabled to expand to take over most of the time available for teaching—a redistribution of time in favour of the student. Alternatively, you could say that the focus has shifted from teaching, where information flows mostly in one direction from lecturer to students, to learning, where information is shared among all the participants. Research in this area, with this new paradigm, could produce interesting results.

All this might also give rise—on the part of lecturers—to consideration of different learning styles. Instead of assuming that all students are capable of learning by listening and by re-assembling in their own minds what they take to be the shapes in their lecturers', those lecturers might come to see that some students—or perhaps all—learn as well or better if they are given the opportunity to incorporate a higher frequency of visual material in their learning strategies. That is, if students are able to read lecturers' notes as well as listen to them, they may be better enabled to learn. Also, if the kind of planning I am advocating is

carried out, it will be likely to result in better concept maps (whether framed graphically or in prose) than otherwise. There may also be spin-offs from particular technologies becoming available to teachers using computers, in the form of outlining and presentation software, as well as graphics packages generally.

Research in distance education, as elsewhere must have some awareness of its own assumptions. While researchers in distance education continue to assume that the distance inscribed in their practice is a problem to be overcome and while researchers in conventional education assume that there can be immediate transfer of information from the mouths of lecturers into the minds of their audiences, both parties will continue to produce results which support assumptions which I have argued need to be examined. Taking account of distance as an inevitable—and in some ways even desirable—element in all forms of education should bring about changes in research design and outcome which will ultimately benefit students and teachers at a distance.

Chapter 4

# Constructivist epistemology and its implications for contemporary research in distance learning

**Olugbemiro Jegede**

## Introduction

THE RAPID AND diverse growth which characterises the study of natural phenomena, and the need to determine the basic reasons for understanding nature, led to the emergence of the vast field of study called philosophy. Philosophy has experienced dynamic development over the years from Bacon to Glasersfeld through Lakatos, Kuhn, Popper and Hudson. The work of these and other philosophers has led to the accumulation of literature, which reflects several philosophical frameworks made up of a number of epistemological positions which have shifted in emphasis and application. The shift has been from empiricism and positivism through rationalism to constructivism. While empiricism represents the standard philosophy, rationalism and lately constructivism represent the new philosophy (see Abimbola, 1983; Terhart, 1988). The dynamism within the new philosophical paradigm has led to the contemporary philosophy called constructivism, and especially to that form of it known as radical constructivism. This new epistemology is attracting a preponderance of adherents and looks set to dominate the field of philosophy for some time to come. Radical constructivism states that knowledge is actively constructed by the cognising object *and* that the function of cognition is adaptive and serves the organisation of the experiential world, not the discovery of ontological reality (Glasersfeld, 1987; Wheatley, 1989). As explained by Driver (1988):

> ...to know something does not involve the correspondence between our conceptual schemes and what they represent 'out there'; we have no direct access to the 'real world'. The emphasis in learning is not on the correspondence with an external authority but the construction by the learners of schemes which are coherent and useful to them (p.135).

Candy (1991), who sees constructivism as a broad and somewhat elusive concept, identifies one of the tenets of the new epistemology as a situation in which 'individuals try to give meaning to, or construe, the perplexing maelstrom of

events and ideas in which they find themselves caught up'. Radical constructivism as a philosophy departs from an older tradition which views knowledge as a representation of reality. Its main thesis is that the knower constructs his or her own knowledge within a social environment.

## Emergence of constructivism

Although Candy (1991) reports that the origin of constructivism has been traced back to the pre-Socratic Parmenides in the 5th Century BC, accounts of its serious influence on philosophical thought surfaced in the 18th Century with Vico in 1710 (see Glasersfeld, 1989). In fact, it appears that we now have three generations of constructivism beginning with Vico through Kelly (1955) and Piaget (1970) to modern radical constructivists like Glasersfeld. Thus, even within the field of contemporary constructivism there is the rise of radical constructivism championed by Glasersfeld. Although a full discussion of the dichotomy of views in constructivism is beyond the scope of this chapter, there is a need to identify one or two distinguishing characteristics as they relate to the main discourse which follows. Glasersfeld (1987) asserts that while 'true' or conventional constructivism contends that humans are responsible for all their thoughts, knowledge and actions; radical constructivism maintains that the operations by means of which we organise our experiential world can be explored and organised differently. He goes further to say that the radical difference lies in the relation of knowledge and reality which conventional constructivism sees as a picture-like 'match', while radical constructivism sees it as a functional adaptation, or 'fit'. Glasersfeld (1987) distinguishes between 'match' and 'fit' by using the metaphor of the burglar with a key that fits to unlock a door.

> The metaphysical realist looks for knowledge that matches reality in the same sense as you might look for paint to match the color that is already on the wall you have to repair...something, in other words, that he can consider the same, because only then could he say that his knowledge is of the world.
>
> If, on the other hand, we say that something fits, we have in mind a different relation. A key fits if it opens the lock. The fit describes a capacity of the key, not of the lock. Thanks to professional burglars, we know only too well that there are many keys that are shaped quite differently from ours but nevertheless unlock our doors. The metaphor is crude, but it serves quite well to bring into relief the difference I want to explicate.
>
> From the radical constructivist view, all of us—scientists, philosophers, laymen, school children, animals, indeed any kind of living organism—face our environment as the burglar faces a lock that he has to unlock in order to get at the loot (p.196).

Radical constructivism is opposed to the ideas of conventional constructivism which suggest that there is no major departure from cognitive representation of knowledge. Radical constructivism believes that there is nothing like knowledge transfer. Every knower must construct the knowledge for himself or herself. The learner is an organiser of and interpreter of knowledge and experience. In sum, radical constructivism departs from the conventional constructivism by resting its argument on the theory that knowledge does not reflect an 'objective' ontological reality, but exclusively on ordering an organisation of a world constituted by our experience. For a detailed description of features which differentiate conventional constructivism from radical constructivism Glasersfeld (1981) is highly recommended. In the rest of this chapter, the terms 'constructivist' and 'constructivism' imply radical constructivism.

The development of constructivist epistemology appears to have received significant support from modern theories of learning, especially in the area of school science education. This would explain the valid observation of Candy (1991) that it is the field of science so frequently assumed to deal with 'hard' facts and 'real' data that has done most to bring constructivism to the fore as an alternative way of viewing knowledge.

## Modern theories of learning

The failure of the effort in the 1950s and 1960s to improve school science education (Novak, 1988) was attributed not merely to its lack of a philosophical base, nor to its failure to keep pace with contemporary notions of the philosophy of science, but to the fact that there was a gap between a teaching approach and a learning approach. There was therefore the need to address the issues of how learning in science, and concept formation and change, take place in the classroom. This led to the emergence of several perspectives on student learning (Harré, 1984; Tennyson, 1992) which can be grouped very broadly into two major camps, the Piagetian School and the Alternative Conceptions Movement

The Piagetian theory of learning arose from Piagetian developmental theory. This theory, which explained how children's cognitive faculties grow from birth to adolescence, became central to inquiry learning. The Alternative Conceptions Movement sprang from the Ausubelian theory of the relevance of prior knowledge and meaningful learning, a theory championed by Joseph Novak and associates. Ausubel's famous principle that one should ascertain what the learners already know, since that is the most important factor, and teach them accordingly; became the foundation on which the movement rested its theory of learning. The work of this group of cognitive psychologists led to the consensus

that certain relatively valid and stable principles of learning exert influence on the learning of science and mathematics in schools. Some of these principles include:

- concepts are acquired early in life
- misconceptions are acquired early and are resistant to modification
- prior knowledge influences new learning
- information processing capacity is limited
- most knowledge is stored hierarchically
- learners are seldom conscious of their cognitive processes
- epistemological commitments of students influence learning
- thinking, feeling and acting are integrated

Although there is currently a debate about the differences in the learning theories of the two camps, similarities that link them to a single related idea abound. Piaget believed in the developmental model of cognitive growth and argued that the learner constructs his or her own knowledge. The Alternative Conceptions Movement subscribes to the developmental model of knowledge growth through the belief that most knowledge is stored hierarchically. The Movement also believes that learners construct their own understanding and do not simply mirror what is told or read. Proponents of the Movement have prescribed certain metacognitive skills in line with their epistemological orientation. Thus, according to Novak (1988), the locus of control for the learning process is with the learner rather than with the teacher.

No matter what interpretations are given for the results of the two opposing camps on a modern theory of learning, there is every indication that the days when the mind of the learner was regarded as a *tabula rasa* are gone for good.

## Constructivist epistemology

Constructivist epistemology has received extensive study and elaboration by Glasersfeld (1981, 1987, 1988). According to Glasersfeld, because constructivism primarily deals with questions of and about knowledge it can be considered as an epistemology. Knowledge is viewed as beginning from the learner's activity and is mentally constructed and closely related to the action and experience of a learner. This means that knowledge can neither be separated from the knower nor transferred from one knower to another.

Constructivists say that we cannot transmit meaning but must construct it for ourselves, and according to Glasersfeld (1987), knowledge is not a commodity

which can be communicated. The meaning we ascribe to objects and phenomena through the constructivist approach is socially negotiated and determined. Candy (1991) succinctly puts it by stating that:

> ...to the constructivist, knowledge does not necessarily reflect or map exactly the external reality, but consists of a set of workable hypotheses or 'templates', constantly being put to the test in interactions with other people's constructions of the 'same' situation. Not only are such construct systems complex and intricate, but it seems certain that no two people would ever have exactly the same cognitive structures (p. 265).

Learning also takes a different meaning in constructivist epistemology. It is seen as the adaptations learners make in their functioning schemes to neutralise the cognitive dissonance that arises through interactions with our world (Steffe, 1988). The issues of viability (the qualitative measure of the extent to which individuals are satisfied with the fruitfulness of their knowledge in understanding their own experiences), perturbation in relation to learner's perception of the viability of knowledge, and negotiation (which leads to consensus about the social value of an individual's knowledge) are quite central to constructivist epistemology (Taylor, 1990).

## Distance education and learning

Distance education contrasts with the conventional face-to-face education system and pertains to the teaching and learning situation in which most or all the teaching is conducted by a teacher separated in space and time from the learner. Keegan (1990) has listed six defining elements of distance education as follows:

- the separation of teacher and learner
- the influence of an education organisation
- the use of media to link teacher and learner to educational content
- two way exchange of communication
- learners as individuals, though group activities possible
- education as an industrialised form

Distance education, characterised by its distinctive methods, has been justified from a sociological point of view amongst others, and removes some constraints from learning.

In distance education, the expected learning outcomes are predetermined and are dependent on an efficient and effective design of materials. The design of

instructional materials for distance learning is often undertaken by a group or team and relevant ideas from learning theories are integrated with educational practices within the discipline of instructional design and curriculum engineering (Jegede, Taylor and Okebukola, 1991). The distance learner, who is usually an adult in some form of employment, is characterised, amongst other qualities, by autonomy, persistence, independence, self-direction and flexibility (Holmberg, 1989; Keegan, 1990; Sammons, 1990; Candy, 1991; Joughin, 1991). Personal, psychological, environmental and other related factors play important roles in distance learning where goal-setting, planning operations, organising activities and seeking closure are seen by Altman (1990) as essential.

## Research in distance education

It seems to be as natural to humans to conduct research as it is to breathe Candy (1991). The quest to understand the environment, to explore and exploit its material benefits, and to test hypotheses relating to natural daily occurrences, have been part of our evolutionary development. Research has also been linked with scientific philosophy and the search for truth (Bronowski, 1961). Historically, these efforts in research have drawn justification from the prevailing philosophical paradigm so that, for example, research under the regime of positivism has necessarily been embedded in and reflected the tenets of that philosophical thought.

Research in social sciences, and especially in education, has often been tied to the dominant positivist-empiricist philosophy which attempts to mirror the objectivity and precise nature of scientific research. While the general educational literature is replete with a plethora of research embracing a wide variety of methods, the case is different within distance education as an examination of its literature shows. The examination reveals that a lot of the research in distance education is neither well planned, nor conducted and reported in a systematic manner. Also, the need to relate appropriate methodology to philosophy of approach and to research and epistemology is hardly addressed (Moore, 1983; Holmberg, 1989; Cleminson, 1990; Jegede, 1991). One other recent development is the tendency to regard enquiry as only ancillary to distance education (Coldeway, 1990), a view which may be responsible for this diffuse and uncoordinated focus that has characterised much of distance education research (Moore, 1983). This view of enquiry as ancillary, in turn, results in the paucity of research reports on distance education in the literature. The complexity of distance education—the learner, instructional design, production, delivery through a multimedia approach, the issues of time, place and space, and their interactions—demands that our practice, theoretical framework and philosophy of distance education should constantly be informed through enquiry. This is a

scientific way of monitoring the delivery of distance education and of assuring learners and instructional providers that the message is being conveyed effectively and efficiently.

## Constructivism and distance education research

The new philosophy of constructivism and especially the paradigm of constructivist epistemology has implications for contemporary research in distance education. If, as mentioned, concepts like learning and knowledge have assumed different connotations in constructivism, so also have other concepts and ideas related to pedagogy and learning; for example, conceptual change and its measurement, and knowledge engineering. All this will have an impact on the kind of information needed for the delivery of distance education and consequently on the type and focus of research in distance education. This of course assumes that constructivist epistemology will, for a considerable period of time to come, exert its influence on the field of distance education.

At the moment, one of the dominant procedures for designing instructional materials is the use of the psychological notion of behaviourism. However, in the constructivist model things appear different. For example, given the characteristics of constructivism, the constructivist will argue that it is not ideally possible to prescribe behaviours nor can learner behaviour be described as it actually is. Similarly, is it really possible for instructional materials to specify learners' behaviour that could result from the sequence of learning activities? The constructivist interpretation of learning emphasises the need for research into what constructivism means and entails for the distance learner.

Related to any investigation of what learning means to the distance learner within the constructivist epistemology is understanding how the distant learner constructs meanings from instructional materials (Calvert, 1986). What for example is 'knowledge' to the distant learner, and would this understanding agree with the 'knowledge' that distance learning instructional materials attempt to 'convey'? Constructivism, of course, does not view knowledge as fixed and neither is it transmittable from one knower to another. The learners, being actively engaged with instructional materials, construct their own meanings through an interpretative process which unravels their world in a personally meaningful way. Three main issues are evident here. These are the issues of prior knowledge, the developmental view of knowledge and concept formation versus constructivist pedagogy.

Personal experience, everyday occurrences and environmental influences provide a rich source for constructing meanings of concepts and phenomena. Do

these intuitive meanings conflict with those being negotiated with the learner through instructional materials? If so, is concept attainment adversely or otherwise affected? The profound effect these influences could have on learning through distance education materials suggests the need to inquire into the role of prior knowledge in learners' construction of new meanings about concepts.

The developmental learning paradigm of Lawson (1979) and the generative approach of Osborne and Wittrock (1983) discount the viewing of learning as mere cumulative accretion of knowledge (Cleminson, 1990). Instead, learning is an active interpretative process of constructing or generating ideas to explain occurrences. This means that the dilemmas surrounding the locus of control for the learning process, the types of negotiations and how knowledge grows require resolution. The consideration of prior knowledge and the developmental view of knowledge have implications for constructivist pedagogy with particular reference to how instructional materials are structured and how learners are supposed to construct or infer meanings from the knowledge frameworks presented. This is even more relevant to distance education in which no classroom learning environment exists and teaching strategies are used mainly as an act of faith (Jegede, Taylor & Okebukola, 1991). One viable way out is explaining differences and relationships between sets of beliefs about learning and knowledge through the use of metaphor and analogy. While work is progressing in these areas (see Lakoff and Johnson, 1980; Duit, 1990), the call by Candy (1991) for research techniques which emphasise the use of analogy and metaphor, and which invite learners to describe their learning in metacognitive terms, needs to be underlined. Distance learning within a constructivist framework would necessarily make more demands than ever before on the use of metacognitive strategies and on understanding the details of human information processing. These would be useful for several reasons, including the development and determination of instructional materials and conditions, and distance learners' mental representation of constructed knowledge and their problem solving processes (Taylor, 1985). Obviously, a concerted effort towards research in distance learning would go a long way towards providing answers to these and other learning problems.

One of the most topical debates relating to distance learner characteristics is that which pertains to autonomy and self-directedness. Long (1988) has labelled the construct as 'weakly conceptualised, ill defined, inadequately studied and tentatively comprehended'. Candy (1991) has proposed directions and agendas for research towards further understanding of self-directed learning. While researching this within a constructivist framework, attention should be paid to learners' experiences of dissonance between what is already known and the new ideas being constructed. This should be done in relation to the meaning the learner has constructed and believes is a viable interpretation of what is cognised. Learners' cognition of concepts in instructional materials should also be investigated.

Finally, the changing nature of philosophical thought demands that research methodology in distance education be re-examined. Although Candy (1991) believes implicitly that interpretive (qualitative) research methodology is what fits constructivist epistemology, there is need for caution in completely tipping the research methodology balance towards one focus with little and unsubstantiated evidence. It may well be that the complex web of interacting variables which make distance learning distinctively different from its face-to-face alternative would equally require the symbiotic use of both qualitative and quantitative research methodologies. Unequivocal adoption of appropriate research methodologies in distance education should evolve from research practice itself.

Chapter 5

# Distance education: researching formations

**David Harris**

THIS PAPER CONSIDERS some recent experience gained as a part-time tutor on the Open University's (OU) new Master of Arts (MA) in Education program. I am a Regional Tutor on two MA modules—*Classroom Studies* (E812) and *Educational Organisations and Professionals* (E814). In my full-time job I teach undergraduate sociology, media studies and popular culture courses, 'face-to-face' in a College of Higher Education in Plymouth. The boundary between 'distance' and 'face-to-face' is becoming increasingly blurred, of course, at least, once one moves away from the more obvious geographical definitions of 'distance'.

Recently (Harris, in press), I have tried both to offer some reflections on teaching these modules, and to revise some of the critical comments I offered in my book on the OU (Harris, 1987). I wanted to reflect upon the experience of teaching two modules which set out to be 'critical', in a sense which is well-known to teacher educators. A 'critical' course is one which permits students the chance to engage in the kind of reflection upon conditions of action described by Evans and Nation (1989a), and one which provides students with the material and the opportunity to permit reflection beyond the immediate demands of the task in classrooms.

In that chapter, I simply outlined some personal reflections on the dilemmas involved in constructing a critical text, and in trying to 'position' students and tutors in such a way as to communicate with them, anticipate their existing knowledge and interests, and gain their commitment to embarking upon a process of critical reflection. I suggested that various forms of resistance and reinterpretation are also open to students and tutors. In this paper, I would like to summarise those reflections, and discuss possible ways to begin to research these possibilities.

To outline my main argument briefly here, I shall suggest that the qualities of critical reflection and resistance that seem at issue in teaching these modules cannot really be studied by the positivist methods of conventional educational

technology, with its disciplinary rituals of 'effective communication' at the production end, and 'effects analysis' at the reception end. Apart from any other problems, these techniques cannot distinguish any of the intended effects of critical courses specifically, and the implicit politics of the techniques might contradict these critical intentions. Instead, current debates in researching the ideological effects of popular television and film upon the audience might be examined as a source of suitable insights: in particular, the analysis associated with the concept of a 'reading formation' (Bennett & Woollacott, 1987) might serve to orientate future research.

First, though, it might be useful to consider aspects of the 'production formation' of the modules in question. Little is known about the conditions in which courses come to be produced. In studies of popular media, conditions of production are a problem for research: the specific representational meanings woven into films are of interest, and the process of 'encoding' meanings as specific film discourses are foregrounded. Educational writing or broadcasting is still largely assumed to be unremarkable, though, and discourses tend to be studied under a rather limited interest in 'effectiveness', although there are some exceptions (like the pieces in Giroux et al. 1989). This is partly because the 'realist' conventions of educational media production try to render invisible the devices that construct the text. Further, conventional educational technology was not equipped to uncover its own assumptions about the supposed universality of its procedures: in the absence of serious study of audience perspectives, there is a danger of a recourse to the 'common sense' of the course designers and, like all common sense, it is far from universally held.

What follows is an attempt to reveal some of those conventions. There is no agreed method to be used to excavate the production formations of texts, though, and there must be a constant interweaving of meanings 'located' in the analyst, the producers, and the production context: the account which follows is the result of my own 'inter-textual' reading, drawing upon my own interests in distance education and in certain critical traditions of enquiry.

## The MA in Education

The OU launched the MA program in the midst of a battle over the future type of, and funding for, programs for experienced teachers. In brief, there was a pressure towards 'relevance' in these courses, just as there had been in initial teacher training. This pressure can be understood as part of the State's campaign against 'progressive' teachers, itself interwoven with other moral items on the neo-conservative agenda (see Dale, 1981), and there was a 'micropolitical' element, involving internal struggles for resources. Debates about 'theory' and 'practice' in teacher education are often best seen as a micropolitical struggle

between two classes (in the neo-weberian sense) of teacher educators, masquerading as an epistemological one (Harris, 1989).

In these circumstances, the success of the MA program represents something of a reversal of the trend towards shorter, more immediately 'practical' courses. The first clutch of modules also seem unusual—deliberately 'academic' and 'critical' (in different ways) modules were offered first, including *Classroom Studies* (E812) (*Classrooms*—of which more below) and the brilliant *Gender and Education* (E813). Even the second wave included *Educational Organisations and Professionals* (E814) (*Organisations*—of which more below), and *Language and Literacy* (E815), with an introductory section on recent critical linguistics.

The story of the struggles behind these courses at the OU remains untold, but it seems clear that the 'academics' in the Faculty of Education were the first to take advantage of the opportunity to develop MA modules, and to seize what might be a final chance for critical work. The haste can be detected in the design of *Organisations*, especially, as Ozga (one of the main writers) has confirmed (see below).

It would be worth studying the specific factors in the production of courses in the manner which Bennett and Woollacott devote to the *James Bond* movies. In both the OU modules, there are a number of background 'texts' (in the broadest sense) which have influenced the design of the courses. Ozga's work on *Organisations*, for example, can be retraced as the latest in a series of debates among radical sociologists of education as they came to grips with the 'educational offensive' of the British State in the 1980s. Particular accounts, and arguments about the central concepts deployed in them, dominated radical work. Ozga's own views about teaching as undergoing 'proletarianisation', for example, clearly changed in those debates, as her published papers with Lawn reveal (see, for examples, Lawn and Ozga 1988—originally published in 1981, and Ozga and Lawn 1988 ). Once some of the background is known, by tracing back the published aspects of the debates to look for formative texts, the strategic choice of material in *Organisations* becomes clearer.

Of course, there are more specific conventions of course production to consider, too. In OU work above all, there are the conventions of 'effective communication' and academic balance, and these are responsible for the inclusion of material (such as a large amount of work from a research tradition disliked by one of the main contributors to *Classrooms*), and for a number of specific argumentational manoeuvres in the materials themselves. This needs research too, but in OU materials, the manœuvres range from organising a classic 'distant' review of the pros and cons, strengths and weaknesses of different approaches, to a subtle attempt to privilege a particular account within the apparently open debate.

My own work discusses narrative devices I have called 'academic realism' (Harris, 1987; Harris, 1991), whereby a number of accounts are described, criticised and shown to be less than adequate, or mutually contradictory, and then a privileged account is allowed to emerge which apparently solves all the problems of the earlier ones. As the term suggests, this account of academic realism is drawn from a famous account of realism as a narrative technique in popular media (Maccabe, 1981). Later work (Harris, 1992) shows a number of concrete examples of variants of this technique in critical OU courses like *Popular Culture* (U203) (Open University, 1982).

OU courses are also not contained in the printed units, of course, but offer a collection of texts for the reader, including broadcasts, supplementary materials, publicity materials, information in syllabi and so on. There may be contradictory messages, deliberate and unintended, in these different materials, as the controversy over OU 'case-study' television programs indicates (Thompson, 1979). OU writers might deliberately invoke other texts, seen best in references to other OU courses, perhaps, as an attempt to generate 'intertextuality' to produce effects in their readers: if so, I know of no investigations of the practice, although there are some interesting lines of enquiry to pursue in media studies.

Bennett and Woollacott (1987) identify likely effects of 'textual shifters', like those in publicity materials, which interpret texts in ways which energise particular readings. This is still unresearched too, as far as I know, but I have encountered students who have tried to read *Classrooms* as an introductory 'methodology' course following some material about it included in the prospectus.

This is only a sketch of possible lines of research to pursue at the production end, but I hope I have done enough to indicate that these are the right lines for analysis if we want to research, with critical intentions, a module, and if we take the relevance of context seriously. If we are indifferent to content or intention, or if we try to limit meanings to those immediately offered by the printed text, these explorations will probably seem excessive, of course.

## The audience

The reasons for students applying in large numbers to study these modules are also under-researched (although some market research has probably been done). From my own discussions, the familiar motivations identified in the research on undergraduate courses have emerged again; like the perception that further promotion or consolidation of one's position requires a postgraduate credential, as a kind of repeat of the credentialist anxiety that provided the OU with its first undergraduates in 1971. There are also hints of the importance of

the status of the credential again, with students seeing an MA as an official recognition of their merit (sometimes as a consolation for lack of promotion at work), or as a kind of parallel career where their teaching does not provide them with enough sense of intellectual stimulation or reward.

Of particular interest is the stance of the students who take these courses, though. I had found in my own small scale research on undergraduate Education students in 1973, that none of them were particularly predisposed to be critical or self-critical about educational practices, and instead spent some time in deflecting or defusing the critical thrust of the course, *School and Society* (E282).

Experienced teachers in 1987–91 seem rather different, possibly because they have been through a lengthy series of struggles with the government about their work, including the curriculum, pay and conditions. As a tutor, I can only report that I find a much more sympathetic audience these days for marxist analyses of the role of the State as a hegemonic agent, or for teaching as having been 'deskilled', or for critical analyses of educational organisations as arenas for the interplay of micropolitics and other power struggles. There is also much scepticism about the intentions behind attempts to operationalise factors like 'atmosphere', or to measure the effects of schools, which make the academic critiques suddenly seem more relevant.

Of course, these are only speculations. If one were to research these and other possible readings achieved by the audience, there are a number of techniques available. An obvious choice would involve ethnographic research, to probe more deeply into meanings than would be possible with classic evaluative techniques like the OU's 'course unit report forms'. Again, it is important to use 'richer' techniques if we are especially interested in critical courses where we want to know if some qualitative change has occurred in students, in the way they see their lives. Asking for the classic 'attitudinal' market research data would be of little use.

Ethnographic research of the popular media audience was originally thought to be unsuitable, however. Apart from the usual reservations about using 'bourgeois' methods (Butters, 1976), audiences were thought to have been largely 'positioned' by texts, so much so as to be incapable of having an authentic empirical response of their own. This phase accompanied a deeper critique of 'the subject' in certain marxist circles.

'Positioning theory' is not as easy to dismiss as it looks, of course, and there is even some common ground with empirical researchers who are also aware of the difficulties in eliminating the effects on the audience of the text in question, or of other texts. At its crudest, when students offer critical reflections on their practice, are they rehearsing those of the course, or of other OU courses they

have taken in the past, or of other texts they have read still earlier? Even their 'resistance' to texts might not really be their's. These are important questions once we get beyond a simple interest in immediate 'educational' effects.

Whether there is any empirical reality 'outside of the text' has become a major question following the 'postmodernist' crisis too. This debate echoes throughout many recent studies of the audience for popular media, from Bennett's (1980) reservation about empirical study through the debates in Seiter et al. (1989), to second thoughts about the feminist tradition in audience research in Geraghty (1991). One response has been to abandon methodological rigour altogether and simply offer accounts which foreground the content, so to speak, without worrying whether the meanings in question 'reside' in the researcher, the viewer or the text (see, for example, Fiske 1989). The 'reading formation' approach tries to sidestep methodological impasses in this way too, earning a rebuke that it perpetually 'defers [actual] meaning' as a result (Morely, 1989). No-one is sure any more how to 'fix' these actual meanings, though, in ways which overcome the problems of naïve empiricism: one can demand answers to one's own questions as a researcher or evaluator, of course, but there are losses in understanding.

As a result, audience studies often limit themselves to demonstrating possibilities, such as possible 'reading formations'. In studies of popular media, it is also important politically for radicals to demonstrate that the audience is highly competent in resisting the messages of dominant ideology in soap operas, melodramas, or advertisements. Work on the soap audience has apparently shown that the female audience can be capable of 'redemptive' readings, for example, or of critical work which extends to ironic appropriations of *Dallas* (Ang, 1989), or a surprisingly deep knowledge of the effects of the production constraints of *Eastenders* (Buckingham, 1987).

In studies of educational media, the emphasis is reversed, though. Work like that done by the OU Study Methods Group (Morgan, 1982) reveal the conservative possibilities, as students process critical courses in a 'surface' mode, or as they pursue instrumental strategies like 'selective neglect' (Harris 1987). It seems useful to combine these pessimistic and optimistic possibilities at least, and begin to consider ways in which texts might try to switch them on or off. As I suggest below, tutors in distance systems are probably closest to being able to recognise and attempt to manage the effects of reading formations, however.

## Modules and Strategies

The two MA modules which I know best have quite different strategies in order to foster a critical response in their students. *Classrooms* pursues a classic ap-

proach whereby students are to be provided with a set of critical concepts and, more generally, a critical perspective with which to analyse common (often very famous) examples of classroom research. Students are invited to try out critical approaches for themselves, in self-assessed questions and in assignments. The author's own responses in the text, and the detailed notes given to tutors to guide their assessment, try to anticipate common responses by students as well as offering the 'correct' line.

Gradually, *Classrooms* students come to establish the power and the possibilities of the critical perspectives for themselves, and can offer sophisticated critiques of selected published material as well as of their own project work. However, in the early stages of the module, it is common for me to have to police student responses quite closely, as they try to pursue 'deviant' strategies to manage the material.

It is common, for example, for students to mount some sort of moral evaluation of the pieces of classroom research in question, or to wish to pursue implications for practice directly, to make the concern for practice the centre of their evaluation, to privilege 'action research' as the only valid mode of classroom research. *Classrooms* will have none of this, however, insisting that its focus is not about evaluation or practice, but about the technical validity and reliability ('descriptive' and 'explanatory validity' are the terms used) of classroom research.

Teachers need to know about such research so they can intervene in debates about policy allegedly based upon it. The course highlights in particular the controversy caused by Bennett's study of 'progressive' and 'traditional' teaching (1976). The study became popular and often-quoted in the debates that raged in Britain in the 1970s, but the research itself was seriously flawed, the findings have been reworked and, in a typical argument that students encounter on the course, the whole attempt to isolate the single variable of 'teaching style' has been abandoned in favour of an approach that is much more sensitive to the complexity of classroom life.

Wider implications are hard to avoid: any single variable, 'technical fix' policies are likely to feature the same flaws, including those currently on offer from the government. Several students have also pointed out the implications for schemes of teacher appraisal, past and future: what methods do inspectors use when they observe classrooms and make those confident statements about the effectiveness of our teaching techniques? What methodological assumptions are inherent in the government's drive towards 'quality' or the use of 'performance indicators' for individuals or institutions? What inferences are to be drawn from annual appraisal interviews, what explanations will be available to appraisers, how will alternative explanations for an individual's performance have been eliminated? No *Classrooms* student (or tutor!) is likely to act as the cultural dope

presupposed by many official data gatherers and evaluators currently eagerly embracing empirical measurements in British education.

This sort of argument requires a systematic induction process, both to practise the techniques, but also to avoid the quick solution. Push too hard, and your students become cynical about what looks like an obscure academic game, or simply manage the course in the familiar 'instrumental' ways (including, in one case, I am fairly certain, faking an entire project). Yet taking the easy way out, coming off the central ground of the module and bowing to the current pressures for immediately relevant or politically acceptable (and largely uncritical) classroom research, misses the whole rationale for the module. It means students almost never learn the point of doing all the ground clearing: in the absence of any perceptible point, then cynicism or *ad hominem* assertions about the personality defects of the author, or weary re-runs of the micropolitical struggles between 'practitioners' and 'theorists', rise to the top.

Of course, even here, having decided to tough it out, one has to act initially in bad faith as a tutor, pretending that some universal or disinterested 'objective' critique is on offer, or that a 'Grand Narrative' under the specific pieces of research being discussed can be developed and applied without contradiction or dogmatism: at the end of the day, we know it is a game or a narrative, but if we told students that right from the start, they would probably never bother. Tutors have to be especially skilled at knowing when to close off debate and insist that a 'line' is pursued, and when to invite students to challenge that line itself. Complete openness, the immediate installation of an approximation to a Habermasian 'ideal speech act' is unlikely to be a very effective educational strategy.

At the *Classrooms* Summer School a kind of moral career can take place, as students find themselves stripped of their previous identities and audiences, isolated on a university campus for an intensive week, and immersed in the activities, tasks and techniques of classroom research. Some students have told me that they grasped the issues for the first time at Summer School. The 'good' side of subjectivity can be fostered: seen in the flesh, course writers often contradict the stereotypes held silently by students who have only ever read their course materials. I have been in groups that have been wonderfully therapeutic, and students have gained confidence and practised that necessary temporary 'distance' from the immediate issues that the rather abstract focus of the module requires, often after having seen one or two fellow students demonstrate the critical perspective in a calm, skilled, ironic and charming manner, not unlike the skilled readers of *Dallas*.

I had one nightmare group too: members disliked each other and me; no-one wanted to do the activities; and a large contingent from one region became irrevocably cynical and defensive (with horribly contagious sarcastic remarks

like 'I know I'm only a teacher and not a researcher, but...'). Summer School, and the intensive interactions it offered, only taught those students more sophisticated immunisation strategies to preserve their reading formations.

For analysing such students, some sort of analysis based upon Bourdieu's (1984) account of differences in the cinema audience offered another immediate parallel. Bourdieu's work suggests, in a nutshell, that the ability to take a distanced and ironic stance towards challenging material is partly a function of social class and gender and the ways in which they structure the necessary 'cultural capital'. There are further structuring factors too, no doubt. Perhaps courses should more consciously attempt to provide such 'cultural capital' for students (a radical version of 'study skills' as it were) and attempt to identify its effects in the course materials. Researchers interested in reading formations could well begin with Bourdieu's study.

*Organisations'* strategy was quite different, and far less dependent upon a careful induction into a particular specialist perspective in the classic sense. One obvious (and attractive) feature, for example, was its light assessment load—six assignments, only three of them 'summative' (i. e. counting towards the final grade), no Summer School, no project, one examination (like all the others). The assignments were novel too—they appeared in pairs: the first one (ungraded) was designed to focus on the student's own experience; the second invited students to consider that experience in the light of the reading.

The organising framework for the first half of the module was a 'British gramscian' one, with its characteristic blend of Euro-marxism, feminism, liberalism and activism. Enlightenment would follow the possession and deployment in 'struggle' of concepts like 'hegemony'—to describe the twists and turns of State intervention in education in Britain), or 'proletarianisation'—to describe the struggles over skill and local power, as well as a hope for a 'correct' political identification for teachers (see, Apple, 1988; Lawn and Ozga 1988). En route to the emergence of these concepts, the module considered some ethnographic or life-history work on the dilemmas, tensions, strains and rewards of teaching, not all of it recognisably marxist or feminist.

It seems that material like this can be used most effectively to 'reconstruct teachers' practices' (Smyth, 1989b), although it is quite possible to resist it, and for the strategy to encounter unintended consequences. A marked characteristic of 'British gramscianism' is the attempt at academic synthesis of different paradigms, for example, which lends itself beautifully to the 'academic realist' strategies discussed above: all the work is done for the student, or to the student. Few students can match the organising power of a gramscian account.

The second half of the module was differently structured, with much less of an attempt to weave all the different elements into some overall narrative. Instead,

a number of debates were offered to students, grounded in the more concrete work on organisational theory. This work can be summarised as offering students a number of current models of organisation—schools as bureaucracies, as machines, organisms etc—and then developing some of the well-known criticisms of these formal models involving a necessary discovery of the subjective or political life of organisational personnel. The module concludes with a consideration of a number of models that openly embrace the 'loose-coupling', 'structural looseness' or dualism in organisations that this discovery implies, and finishes with a discussion of micropolitical strategies that can be found in educational organisations as managers and underdogs alike struggle to impose some kind of order and direction.

As with *Classrooms*, there is a relentless discussion offered of all the models and approaches covered. Many of these are the fashionable models familiar to students of modern educational management, including 'human relations' or 'cultural leadership' approaches. Marvellously sceptical and concrete analyses puncture the usually idealistic and 'boyishly [sic] enthusiastic' exhortations to 'cherish staff' or 'make the workplace a community'.

Some students felt insecure about their assessment—was there a catch, did they have to trot out a party line after all? When I got to know some *Organisations* students really well, it was clear that some were expecting to have to import a technique from their own undergraduate training days and develop highly stylised examples of how their actual practice somehow directly 'reflected' or validated the 'theory' of which their tutors approved.

At our first meeting, we discussed assessment (inevitably), and I suggested we adopt our own conventions for assignments. I undertook to modify the approach if it proved incompatible with any hidden course policy (revealed through tutor monitoring) or assessment practice (such as in the centrally organised examination). I wanted students to feel they really could describe their own experiences in their own ways in the formative assignments, that I had no specific personal or pedagogic axe to grind (more tutor bad faith here), and that I would respect their confidence in terms of any personal or organisational details they wanted to provide, and confine my comments to 'technical' matters to help them write the next summative assignment.

When the first assignments arrived, perhaps ten out of the initial eighteen (and roughly the same proportions with other groups since) did feel they could offer a detailed and 'unofficial' account of their careers to date (the usual opening assignment).

Quite the most powerful material was provided by some women who wrote of the close intertwining of their occupational and personal lives. There were many examples of women having to consider their families in their career choices,

being expected to have to consider their families in career interviews, being channelled into 'female' careers and roles, finding ways to resist and manage these pressures (for example, by instrumentally conforming to the perceived image of the woman teacher in particular schools, or trying to balance the levels of submissiveness and ambition in the image of a 'proper woman'), and managing their work against a background of a variety of relationships with men, including extra-marital affairs with colleagues. As is often the case, accounts like these helped many males (including me) realise how gendered our perceptions and concepts were, and how powerfully an unanticipated reading formation can reorganise what looked like familiar material.

Indeed, subsequent discussions prompted a number of additional thoughts about careers, flowing indistinguishably from student comments, course material, and my own interests It was clear that males often considered their careers in the context of their lives as a whole too, even the most apparently dedicated and careerist. They too consider their wives' careers and their families in choosing where to work, or in making the difficult decision whether to accept promotion to managerial positions or, as the cliché goes, 'to spend more time with their families'.

As an example of the curious way in which *Organisations* could produce unintended critical insights, it was often this apparently 'neutral' material on careers, intended as a preliminary, that had an effect upon students' perceptions of themselves as professionals, rather than the later material specifically designed to focus on the concept.

Of course, even feminine reading formations can be as closed as any other. With some critical material, like the feminist work, recognition proved relatively easy for many students, albeit of a rather wary and tentative kind on the part of some of the males, but having identified concrete problems as located in 'patriarchy', little else developed for them. It was rare for students to be able to account for discrimination against females in terms of combinations of factors like personal prejudice by males, gender as a micropolitical strategy with no particular personal prejudice, and various institutional pressures like managerialism, the moves towards a 'market-based' system, the impact of deskilling upon females specifically—and so on. Enthusiasts for the feminist work tended to clutch at it as a quick answer for everything (with one or two superb exceptions), trading a chance to explore for the satisfactions of finding a convenient organising perspective in the flux.

Unfortunately, the structure of the course and its assessment patterns permitted students to miss out much of the second half of the course altogether (this situation is to be rectified in the final year of operation). Those that did tackle the issues here were often the successful or the aspirational who approached the sections from the point of view of wanting to learn about 'management'. A few

students, especially in the first intakes, also realised that the material provided a brilliant critique of 'management'.

The assignments from the latter group were often memorable. One consisted of a straight-faced account of recent managerial changes in an establishment, followed by a superb and relentless analysis, locating the current 'management philosophy' in a tradition of alternations between models of control and induced consensus, and pointing to the real micropolitical advantages at stake, as competing parties formed up around the different approaches. Another student wrote an insightful account of the techniques used by his senior managers to rig agendas, stifle dissenting voices, produce a managed consensus, and ruthlessly witch-hunt any remaining opponents.

Other accounts did the same from within, as it were, looking back over a successful career and reconstructing it in terms of micropolitical manœuverings and the pursuit of tactical advantage. Again and again, the need to 'fit in', to be 'the right sort of person', to 'look the part' came to the forefront of these accounts. Personal sponsorship from an existing member of the elite seemed crucial too. What these accounts were doing was undermining forever the claim to cool professional authority: I was reading material that reminded me very much of the back stage world of the professional, the one the public or the underdogs never see, in the classic work of Goffman and of Hughes (see Open University, 1973)

Here too, the dilemma of the Regional Tutor is heightened—whether to stick to the agenda set by the module and help students cope with it, or to break away from the agenda and introduce new material to already busy students by way of context. The dimensions of that context have to be 'fixed' too, eventually.

## Conclusion

As a result of tutoring both courses, I learned an awful lot about measurement and management in my own sector, and my own institution, and found myself able to critique it pretty effectively on its own terms (as indicated above). The recent flood of material on 'quality assurance' in particular emanating from the latest Government funding body for Colleges and Polytechnics in Britain offers a rich hunting ground for the *Organisations* buff. For that matter, the empirical proposals to measure 'quality' provide further objects for a *Classrooms*-type critique as well (see Gorbutt et al. 1991). I feel it important to confirm that OU courses leave room for tutors to deploy their reading formations too, and that this is a major satisfaction in the job.

At the local level, it has been possible to use the materials critically while staying within constraints set by the OU contract, including OU monitoring, on the one hand and by the demands and expectations of the students on the other. The main factor here has been the very low-key assessment scheme, with as little strain as possible placed on students (the MA is pass/fail only), and with a wide variety of choice and chances to try out the ideas in formative assignments (especially on *Organisations*). However, many of the answers in the *Organisations* final examination I marked one year (about half of the total taking the paper) were dreadfully banal and descriptive: this can clearly be interpreted in several ways.

The positive outcomes are not simply the result of good course design (including assessment design, although this helps especially). The current struggles over teacher education in Britain have had an important effect on both the provision and reception of critical courses for teachers. That struggle seems to be tipping in the direction of providing uncritical courses and modules, but the audience is probably as predisposed to receive critical materials as they have ever been.

Critical courses like these do not lie at the centre of institutions these days. Even the writing of such courses is done with some micropolitical skill, almost to thwart the institution and to offer a respectable front to the public. Within modules, it seems almost impossible to advance beyond what I have described above as the first level, 'recognition' of links between experience and critical material. Students wishing to advance more deeply into critical theories find very little to guide them explicitly. In this way, rather ironically, both modules seem to have underestimated the capacity of their students for critical readings.

My impression is that theorists everywhere are offering a tactical withdrawal of theory from teacher education, perhaps, knowing they have lost their organisational and political bases in educational institutions: 'recognition', and micropolitics are, possibly, the only form in which critical thought and action can find a place at present.

I hope an account like the one summarised above shows some of the complexities as students activate different reading formations which direct them to some aspects of the modules in particular. Tutors struggle to extend the work of course writers in anticipating these effects and redirecting attention back to the central themes and pedagogic strategies (which are defined quite differently in the two modules I have described). Tutors can use devices specific to face-to-face teaching to do this, of course, such as relativising reading formations of individual students by inviting the deployment of others there and then by other students.

In terms of the methodological parallels I began with, working on this paper has helped me understand some of the writing processes involved in constructing

accounts of the student audience. My account uses a number of devices to try to deliver to the reader a sense of insight into experiences which we do not share, again while minimising my role as a writer in these effects. No-one who has read the literature on the research on the media audience will be surprised by any of these devices, which have been established in ethnographic writing from the beginning (see Seiter et al 1989, and Clifford 1983).

I have become interested myself in experimenting again in distance education methods within my 'conventional' institution. Many institutions will be producing 'flexible learning' packs in order to cope with large numbers of students, from different backgrounds, and with no extra staff or resources. There is a struggle under way, over the shape and form of these packs. Conventions of 'training' or 'telling', interspersed with closed-ended 'activities', seem to dominate much of the current thinking.

My own embryonic ideas involve experimenting with conventional and critical contents, but also with radical forms of teaching. My efforts so far have extended to the production of 28 cassette tapes, two multi-media packs, and some 30 sets of notes on diskette. This activity remains highly marginal to the mainstream teaching activities of my institution, so far, but it has raised already some interesting possibilities: I find I now have an audience for critical analysis again among trainee teachers, for example, despite my College's decision to redeploy me away from the official education studies course in the interests of greater 'relevance'. I intend to market these materials in order to find a wider audience still, to try to develop one of those 'networks' to which Lyotard (1984) refers.

I want to decode (but not debunk) academic discourse and demonstrate critiques, using the flexibility offered by the technologies of tape and diskette, and drawing upon some of the techniques of popular media. The struggle might well be to develop 'producerly texts' as Fiske calls them (1989). I am still clarifying my thoughts after the production of some pretty conventionally populist materials so far. Like Nation, I like to introduce personal reflections (Nation 1989) but not so much on the content of the material as on its structure or form, to present a summary of a published piece, and then to comment upon its argumentational strategies, the ways in which it claims plausibility, opens some issues and closes others for me, and so on. I like to try to signal these shifts by changes of voice on tape, or in other ways on diskette.

I think there might be space for further research as institutions become aware of the growing pressure for 'study skills'. These, too, are often conservative in conception at present, focusing upon trying to adjust learners to the particular requirements of academic or training conventions. I hope to reverse the focus, and examine instead those very conventions, using the sceptical legacy of educational technology on the one hand, and some of the work on media audiences mentioned here, on the other. I am not sure that 'study skills' programs alone

can supply students with the necessary cultural capital to help them thrive in academic environments, but it is possible to point out the effects of cultural capital by 'denaturalising' academic work, and at least to reveal what has to be learned by those with diverse student backgrounds.

Distance educators have nothing to fear from exploring the diversity of their audiences. The initial effect of discovering the complexity of reading formations can be vertiginous, but it will help refocus the efforts of course designers away from attempting to confine readings by 'writerly strategies' and towards the production of genuinely pleasurable 'producerly' texts capable of many readings.

Chapter 6

# Revealing links: post-Fordism, postmodernism and distance education

**Mick Campion**

IN PREVIOUS ARTICLES I have argued that distance education theory, policy and practice have been, until recently, increasingly dominated by production strategies formulated from within the confines of the Fordist paradigm, and that such a paradigm needs to be questioned. The Fordist approach in distance education in my view is analogous to building tower blocks to respond to the need for more housing, and is just as questionable. The articulation of a critique of Fordism was therefore necessary; it was also a matter of considerable urgency within Australia, for the policy recommendations for Australian higher education issuing from Canberra in the late 1980s conceptualised distance education provision as requiring special treatment (Campion, 1990); treatment which assumed that Fordist production methods were *the* way. Distance education was not of course alone in this regard for, in the decades following World War II, governments applied the ideas and methods of industrial Fordism to public housing, schools and hospitals, in an effort to satisfy the demands generated within an era in which principles of equality and universal access held a central place on political agendas (Murray, 1991, p. 22).

More recently, however, the Australian government's agenda is changing, for it is now informed by an orientation which stresses diversity and flexibility across the whole higher education sector (Baldwin, 1991). Furthermore, even such a seemingly staunch advocate of the Fordist model as Johnson, who has been influential over government policy, now confesses to being converted to the alternative view (Johnson, 1992). At first glance, then, it appears that to continue discussing Australian distance education in Fordist terms is redundant. Moreover, my earlier formulations of Fordism may even inhibit the very debate that I consider needs urgently to take place. This is so because, by directing attention to particular production strategies in a sub-sector of higher education, attention may be drawn away from the origins of such changes in the broader processes of political economy and more fundamental debates within social philosophy. In this chapter I will bring these more fundamental issues to the foreground by revealing the relationship between the debate about Fordism and the broader debate about modernism and its possible demise or extension. An argument of

this kind may, at first glance, appear to be of little relevance to researchers and practitioners of distance education, however, as I will demonstrate, it is fundamental to both.

Already those readers who are familiar with debates about or within postmodernism will I suspect be finding ways to critique or deconstruct such a way of proceeding; for example, a critique of the idea of the possibility of moving beyond appearances, or a critique of the accuracy or the usefulness of debating issues at such a level of abstraction and with such vague and careless general concepts. Marxist readers may be suspicious of the nature of the relationship between political economy and social philosophy seemingly implicit in the above remark. Now, I suspect that such critiques and suspicions have much force, but to remain silent on these profound issues blocks off more possible insights than does articulating them, even if only in an embryonic form.

I wish to begin to move from the debate about post-Fordism and to introduce aspects of the debate concerning postmodernism in order to reveal implications for distance education. That the debates about post-Fordism and postmodernism are connected is indicated by Albertsen (1988), for example, who argues that,

> ...postmodernism must be the cultural condition of any contemporary critical, emancipatory, or socialist project just as much as post-Fordism must be the societal condition (p. 358).

He goes on to ask what the significance of this is in the arts, in social philosophy, architecture, and urbanism (Albertsen, 1988, p. 358). Sharpe, though critical of postmodernism, has indicated the need for an engagement with these conceptual schemes by those concerned with contemporary debates about higher education (Sharpe, 1991, p. 12). I am suggesting that we need to begin to make a similar effort in relation to distance education at the higher education level. This is so because education, and sub-systems such as open and distance education, are currently 'by-products' of the economy.

Furthermore, what I am proposing is that distance education's Fordist phase only makes sense in a 'modern' era. However, having stressed education's epiphenomenal character I would now stress that it is only by considering these broader social processes, and their effects, that those in education can expect to exercise a greater influence on the development of policy for education and on more general social policies. However, commending the importance of this research is one thing, engaging in it is another. Albertsen (1988) provides us with a way forward when he argues that:

> What has been discredited with the decline of Fordism is first of all the grand narrative of Fordism itself, the 'belief in the emancipative power of technical progress, statist reformism and administrative measures' (Hirsch and Roth, 1986, p. 103 ). It is the 'technocratic-statist' or the 'Fordist-Keynesian modern'

> which has been delegitimated in the face of the fragmented, individualized, and unequalized 'risk-society' of post-Fordist capitalism (p. 356).

If his argument, which draws together post-Fordism and postmodernism by treating the former as in a sense subject to the latter, is accepted and, also if, as I have argued elsewhere, the dominant form of contemporary distance education provision is consistent with the Fordist 'grand narrative' which has been delegitimated, then eventually such delegitimation will confront distance education.

The generality and breadth of the critique of modernism is illustrated succinctly by Harvey (1989) when he states that some view:

> 'postmodernism' as a legitimate reaction to the 'monotony' of universal modernism's vision of the world. Generally perceived as positivistic, technocratic, and rationalistic, universal modernism has been identified with the belief in linear progress, absolute truths, the rational planning of ideal social orders, and the standardisation of knowledge and production (p. 9).

Such a description renders us unable to ignore the implications for higher education. This loss of confidence in the modern idea of progress (Albertsen 1988, p. 343) has dramatic implications for the very idea of education which frequently is tied closely to an implicit idea of social progress being grounded in the extension and dissemination of knowledge. Furthermore it is this version of knowledge which is most readily served by distance education as conventionally conceived. This loss of confidence which could encourage more open, trusting and confiding relationships in which ideas are more readily tried and shared is less likely to prevail in a context in which, through the dominance of the modernist view of knowledge, confidence is most likely to be associated with expertise (Campion, 1986).

It is clear that the issue is of significance, but what should also be made clear is that education and perhaps particularly higher education has a special role to play. Education has a special role in reproducing and perhaps developing the architecture of thought, in setting the conceptual boundaries within which we move, and higher education has a special responsibility to bring these boundaries to the fore in order that we can monitor, consider, and perhaps revise them. In fact, to avoid this responsibility will continue the introduction of purportedly post-Fordist strategies as the state's strategy of borrowing ideas from industry (Murray, 1991, p. 22), as if more of the same was the solution. By emphasising the connection between the debate about Fordism and the critique of Modernism I hope to make such a narrow interpretation less likely, and yet the concepts and structures I use are themselves contested and they twist and turn in ways which undermine such hopes. Before proceeding we shall consider some of these twists and turns.

Debates about the nature of post-Fordism are numerous and heated because their implications are of considerable political and social significance. Hence, for example while some argue for a narrow interpretation relating to the particular strategies of particular industrial concerns or sectors (e.g. Hirst and Zeitlin, 1989; Badham and Mathews, 1989), others argue for a far broader interpretation which has significance in relation to the nature of societies and social systems (Hall and Jacques, 1990).

Having addressed issues to do with post-Fordism in a little more detail elsewhere (Campion and Renner, 1992), I want here to outline a few of the complexities in the debate about postmodernism. At the outset we need to recognise that no agreement exists as to how the key terms should be defined and that this lack of agreement displays the contest (see, Turner, 1990, p.1). Furthermore, the domains within which the concepts themselves may be used are also contested and range in levels of generality. For example, Chabot argues that 'architectural and literary modernism have about as much in common as any two contemporaries named John Smith' (1991, p. 35). He also reminds us that modernism and postmodernism coexist (1991, p. 23), and that the former does not cease in order that the latter can begin. Likewise, Jencks argues that 'postmodernism has the essential double meaning; the continuation of modernism and its transcendence.' (Jencks, 1991, p. 5). The distinctions between 'modern', 'modernism' and 'modernity' and their respective offshoots are distinctions which Smart describes as floating and fluctuating (1990, p. 15).

The contested nature of the core concept is revealed by Turner (1990) when he states that:

> If one believes that traditional society was based on hierarchy, inequality and violence, then the modernist critique of tradition is progressive. If, however, one regards the gas chambers as the final resting point of modernization, then postmodern objections to modern instrumental rationalism are progressive (p. 10).

Opposing orientations are also revealed in the distinction between versions of postmodernism as reactionary and versions which view it as progressive. These differing perspectives depend upon whether postmodernism is treated as anti-modern or as beyond modern (Turner, 1990, p. 2). It is apparent that if standard orientations towards distance education are grounded in modernism, then an understanding of such fundamentally different evaluations of modernity and, hence, of postmodernity may well help us to account for the different reception that such educational techniques receive. In the architectural domain, as is illustrated in the following extract from Harvey (1989), the difference was resolved in a manner which offers a useful metaphor for 'deconstruction'—a term with specific postmodern connotations—a metaphor which provides a sense of the potentially tragic processes within which we are enmeshed.

> Christopher Jencks dates the symbolic end of modernism and the passage to the postmodern as 3.32 pm on 15 July 1972 when the Pruitt-Igoe housing development in St. Louis ( a prize-winning version of Le Courbusier's 'machine for modern living') was dynamited as an uninhabitable environment for the low-income people it housed. Thereafter the ideas of CIAM, Le Courbusier, and other apostles of 'high modernism' increasingly gave way before an onslaught of diverse possibilities. The glass towers, concrete blocks, and steel slabs that seemed set fair to steamroller over every urban landscape from Paris to Tokyo and from Rio to Montreal, denouncing all ornament as crime, all individualism as sentimentality, all romanticism as kitsch, have progressively given way to ornamented tower blocks, imitation medieval squares and fishing villages, custom-designed or vernacular housing, renovated factories and warehouses, and rehabilitated landscapes of all kinds, all in the name of procuring some more satisfying urban environment (pp. 39-40).

The products of Fordist approaches to distance education embedded, as they are, in instructional design—although wrapped in the rhetoric of 'open learning' and expanding access—also threaten to steamroll the educational landscape if we do not display sufficient foresight and prevent them. Consider, for example, the directives of Dick and Carey (1990), as they describe the model for instructional design that they commend, and notice how closely this resembles the functionalist orientation of the modernist creators of the tower blocks mentioned above.

> The reader will find that each of the chapters, after the introduction, is structured in a similar manner. We hope this structure will facilitate the learning of the concepts and procedures associated with the instructional design model. The description of the model's components in each of the chapters includes the following sections :
>
> **Objectives**: The major objectives are listed for each chapter. They describe what the reader should be able to do after completing the chapter. They are stated in relatively general terms.
>
> **Background**: This portion of each chapter provides the reader with a brief statement of the background, research and development, and/or problems that led to the development of the procedures associated with each particular component of the model.
>
> **Concepts and Procedures**: This section includes both definitions of critical concepts associated with the components as well as a description of 'how to do it'. It indicates how to carry out the procedures associated with each particular component.
>
> **Examples**: In each chapter we provide examples of ways the processes described for each component can be applied. We use a variety of examples in the hope that the reader will be able to apply each procedure to the content area in which he or she is interested.

**Summary**: This section is specifically provided for those readers who will be developing instructional materials as they study these chapters. It summarizes the concepts and procedures discussed in each chapter. By presenting the material in this manner, we hope to illustrate the interrelatedness of the various components of the model.

**Practice and Feedback**: We also provide a series of practice activities in which the reader is required to apply the process to a variety of examples. Readers will receive feedback to their responses to indicate if they understand the principles described in the chapter and to correct any difficulties they may be having. The examples used to illustrate procedures in the book have been purposefully kept simple. The reader should not have to learn the content related to an example to understand the procedure, which is the main focus.

**References**: A brief listing of the most relevant references appears at the end of each chapter. These are annotated to direct the reader to those resources that may help to amplify points made in the chapter (Preface).

Courses rigorously constructed in the manner Dick and Carey propose present the same image of uniformity and dullness epitomized by tower blocks. In fact, the stress upon modularisation, substitutability and portability across the educational systems (in Australia, it is even known as the Unified National System) requires such uniformity. Harvey (1989) cites Jane Jacobs when addressing this issue in relation to the construction of cities:

> This 'Great Blight of Dullness' ... arose, in her judgement, from a profound misunderstanding of what cities are about. 'Processes are of the essence', she argued, and it is upon the social processes of interaction that we should focus. And when we look at these on the ground, in 'healthy' city environments, we find an intricate pattern of organized rather than disorganized complexity, a vitality and energy of social interaction that depend crucially upon diversity, intricacy, and the capacity to handle the unexpected in controlled but creative ways. 'Once one thinks about city processes, it follows that one must think of catalysts of these processes, and this too is of the essence.' There were, she noted, some market processes at work which tended to counter a 'natural' human affinity for diversity and produce a stifling conformity of land uses. But that problem was seriously compounded by the way planners declared themselves enemies of diversity, fearing chaos and complexity because they saw it as disorganized, ugly, and hopelessly irrational. 'It is curious,' she complained, 'that city planning neither respects spontaneous self-diversification among city populations nor contrives to provide for it. It is curious that city designers seem neither to recognize the force of self-diversification nor to be attracted by the esthetic problems of expressing it' (pp. 72–75).

Clearly there are important messages here for us about the place, power and priorities of the planners of higher education provision in addition of course to

her rather understated mention of the market. So the debate about Fordism is intricate, heated, and tied in with differing political, economic, æsthetic, ethical and educational perspectives, but by being so is likely to be more rather than less fertile. As to the debate about modernism and its critique or extension in post-modernism the same can be said but much louder! I raise these issues here because, as distance education moves closer to the centre, and as the technologies it uses increase in power, and are used more extensively, so its potential to oppress also increases. Researchers in distance education have, then, a special responsibility to take these issues much further than they have been taken hereto.

## Acknowledgement

I would like to thank Garry Gillard fo his comments on this chapter.

Chapter 7

# Privileging Others and Otherness in research in distance education

**Richard Guy**

RESEARCHERS IN DISTANCE education are increasingly concerned with the integrity of research and the need to foster collaborative and reciprocal relationships within research. The emerging areas of concern which interest me in this debate are the privileging of the researcher, the imposition of definitions of reality on those being researched and the importance of reciprocal dialogue in research. These concerns are bound up in a series of questions which situate research in distance education:

- What is our understanding of the contexts which situate the participants in research in distance education?
- What power relationships exist in research in distance education?
- What attempts do we make to empower participants in research in distance education?
- Do we encourage negotiation in research in distance education?
- Are we only concerned with presence in research in distance education?
- Whose interests are served by research in distance education?
- Do we concern ourselves with absence in research in distance education?
- What about Others in research in distance education?
- How can we capture Otherness in research in distance education?
- What attempts do we make to 'connect' participants in research in distance education?

These questions form the basis of a research project underway in Papua New Guinea with a group of teachers who are upgrading their basic qualifications in education through distance study. In the past, research in distance education in Papua New Guinea has been limited, and representing mostly a particular kind of ideology. Positivist conceptions of research have dominated the field and

have centred on organisational matters and the achievements of students (Guy, 1992). Little research exists which can be termed qualitative or that which explores the contexts which situate distance education and the nature of distance students in Papua New Guinea (Crossley, 1990).

This is at a time when the ideology of *modernism* with its emphasis on rationality, individuality and equality being achieved through advances in science and technology, grand design and the welfare state, has in fact strengthened unequal relationships of power and control, uniformity and the marginality of particular groups in society. *Postmodernist* approaches on the other hand are growing in importance as ways of understanding modernism's incapacity to account for the multiple realities in society, and as a means to support demands for higher levels of cultural, social and economic diversity. The general changes taking place in the structures of late-capitalist societies, such as increased deregulation, privatisation and autonomy, represent significant implications for distance education and its research practices.

I believe it is important for practitioners to experiment with new research designs and to submit these attempts and results to examination by other participants in the research debate. It is not my intention to discuss the outcomes of this particular research project in any detail here but rather to highlight some of the methodological issues surrounding a critical research approach in distance education and to provide some on-going experiences of such an approach in the context of Papua New Guinea. A group of teachers studying by distance in Papua New Guinea have agreed to keep journals and to record and reflect upon their experiences as distance students. Their discourses range widely but the point is that the teachers set the agenda for the research by writing about what concerns them as students in a distance education program and have not been directed to write in any predetermined areas. The goal is for the participants to record their own 'histories, experiences and stories'. I will use a number of abbreviated extracts from the journals of Others to illustrate the Otherness that is available to researchers. At the beginning of each extract are coded initials which identify the writer to the researcher, and are followed by the date that the entry was made in the journal.

## Contexts for distance education in Papua New Guinea

Papua New Guinea has been labelled 'a developing country' and has indeed adopted a modern approach to development. Lyotard (1984) defines *modern* as,

> ...any science that legitimates itself with reference to a metadiscourse of this kind making an explicit appeal to some grand narrative, such as the dialectics of Spirit, the hermeneutics of meaning, the emancipation of the rational or working subject, or the creation of wealth (p. xxiii).

Education provides the socialising and legitimating codes by which the grand narratives of progress and human development can be passed on to future generations.

The education system in Papua New Guinea, introduced as recently as the 1960s on a widespread basis, was clearly seen as a major tool to promote change and to 'modernise' Papua New Guinea. Education was conceived in terms of 'investment theory' by colonial administrators and continues to be perceived as such by the majority of Papua New Guineans (Bray and Smith 1985). Consistent with this, the curriculum remains centralised and prescriptive, with heavily structured teaching materials, which are made up of mostly Eurocentric views about knowledge. School programs and teachers are regularly assessed by inspectors, centralised examinations dominate the evaluation of students and a rational objectives approach forms the basis of teacher training programs.

Modernism continues to legitimate the theory and practice of education in Papua New Guinea, but as the writer below implies, it has not been very successfully imprinted on Papua New Guinea society.

> (BK – 2/9/91) This knowledge that I get at university is useless to my culture. What is important to us is food the production and distribution of it. It doesn't matter if you are a person from a minor clan or one of the guyaus [chiefs]. We get esteem from how we can give food for feasts and to be wealthy enough at certain times of the year where we can make big parties. This is what people remember you by, not that I have a degree or that I can read and write. That knowledge is useful only in limited circumstances, but we can get by without reading and writing. 80% of our population is illiterate but they are not (really)—that's a UNESCO idea. Everyone in my village is literate because they still have what is important to them and they are not going to give it up easily.
>
> Girls don't go to school much. That isn't because there's no money for fees but that the old people know the value of the girls to keeping the beliefs and the practices of the village. They are the ones who have the babies and raise the children to speak the language and to understand about customs and behaviour. If you educate the girls too much then how do you keep the village going like it always has? This is what the old people believe.

Indeed, there are substantial forces contesting the legitimacy of modernism as an ideology in Papua New Guinea such as the continuing strength of vernacular languages (tok ples) and traditional customs (lo), the dramatic expansion in tok ples preskuls (preschools) in recent years, continuing tribal fights, an armed separatist movement in Bougainville, resistance to government authority and a general breakdown in law and order, compensation claims impeding development projects, and intense expressions of regionalism and ethnicity.

> (TP – 16/8/91) What I want is for my children to be Sepiks so I send them to school back home and not have them stay with me here in Moresby. But that

> doesn't work because everyone in PNG does the same curriculum so we are not reproducing a selection from my culture (Sepik way) like Lawton says, but someone else's culture. But whose culture is that? Our own Fat Cats or the ones who write the curriculum? This curriculum course has been interesting because it has says that some groups dominate others in society, so who is dominating the Sepiks? While we have a uniform curriculum in PNG, I can't see any change. Those Jewish schools you talked about are a good idea because the parents want to keep the kids Jewish, so why don't we introduce that idea in PNG. Maybe the teachers are too lazy or busy to think about education and its philosophy, but we all know that education is not getting the jobs it used to so we need to bring in some changes soon so that my kids can live properly in Angoram.

The resistance expressed in these discourses cast explicit doubts on the rhetoric and the promise of modernism, and provide some understanding of the conditions which give rise to the relevance of the postmodern in contemporary Papua New Guinea.

## Others and Otherness

Lyotard (1984, p. xxiv) defines *postmodern* 'as incredulity toward metanarratives'. Postmodern discourse denigrates all forms of totalising thought such as grand narratives which have been traditionally defined in Eurocentric terms and views of knowledge. It is worthwhile asking ourselves how the curriculum in distance education is most often conceived. The totalising effect of the text in distance education as *the curriculum*, noted by writers such as Thorpe (1979), has the effect of presenting knowledge as fixed, universal, Eurocentric and as a male invention; and as Williams (1976, p. 205) points out, is reproductive and 'put into forms which support or at least do not contradict other elements within the effective dominant culture'. Non-western countries such as Papua New Guinea must reflect seriously on the implications of these notions in the design of distance education initiatives.

Postmodern discourse also alerts us to the importance of the partial and the local which has led to the general expression of the demands of diverse social groups throughout the world, such as women, gays, blacks and ethnics. Postmodernism brings into focus the absent and excluded Others that modernism so successfully rejects with its division between the centre and the margins. The significant political and social changes taking place in Europe, for instance, exemplify the growth and power of postmodern thought. We have witnessed the reconstruction of many of the states of Eastern Europe in recent years and who could have foreseen the dramatic geo-political reshaping of the Soviet Union. The 'new' Russia experienced its own internal divisions based on even more finite claims of ethnicity than that claimed by the Russians themselves.

The ordination of women priests in Australia and elsewhere is no less an expression of difference and a recognition of minority voices in a rapidly changing world.

In the past, the modernist notion of grand theory and generalisability in research has hidden the excluded Others from view and submerged them within the general. Giroux (1990) questions the ability of conventional research approaches to make sense of the significant social and political changes taking place, and the kind of action that is required by educators to cope:

> ...we need to understand how the field of the everyday is being reconstituted not merely as a commodity sphere but as a site of contestation that offers new possibilities for engaging the memories, histories and stories of those who offer not simply Otherness but an oppositional resistance to various forms of domination (p. 16).

The value of the postmodern is that it can refine the sensitivity of researchers to minority voices, difference and reinforces the ability of Others to tolerate the incommensurable. As a result we need postmodernist conceptions of the language of difference and forms of resistance in order to develop a language of the possible for distance education. I would contend that this is nowhere more important than in Papua New Guinea where, as Groube (1985) puts it:

> ...this small fraction of the land surface of the earth contains over one-quarter of the world's languages, and if we could measure it properly, probably a third or more of the the total cultural diversity in the world (p. 49).

Giroux (1990) advocates the need:

> ...to develop theoretical practice capable of retrieving history as the discourse of the Other, reclaiming democracy as as a site of struggle within a wider public vision, and developing a radical ethic that rejects finality and certainty for the voice of difference and dialogue (p. 5).

This is a very powerful statement and embodies a rather different conception of research from approaches based in positivist orthodoxy. It questions the relationship between theory and practice and values ideas concerning life histories, tolerance, uncertainty and difference.

But how can we retrieve history and capture the voice of difference where universal reason as an ideology tends to dominate? Why is it that some distance students complete courses and others do not? How can we understand the idiosyncratic ways that these students employ to negotiate reality? It seems to me that there are a number of conditions that such an approach to research needs to privilege as it attempts to retrieve local history and minority discourse and difference. These conditions are the need to privilege Others and the ex-

pression of Otherness, the promotion of dialogue, the recognition of the importance of minority voices and a radical conception of the role of the researcher.

## Critical research practice in distance education

If we accept the postmodern concern for Others, the recognition of minority voices and difference, then how do we establish a research procedure which goes beyond the experience of the researched, but still granting them full subjectivity, and without violating their reality in distance education?

The ubiquitous survey approach has undergone considerable critique (Morgan, 1990) as to its appropriateness as a research methodology in distance education, being more likely to suppress difference than to acclaim it. The hermeneutic interview (Grace, 1990) privileges the researcher's interpretation of meaning which poses a significant methodological dilemma in this research setting, notwithstanding that interviews with distance students in Papua New Guinea are problematic for practical reasons, too:

> (GM – 15/3/91) There has been much trouble in Enga in the past few weeks. Two separate tribal fights flared up, one just outside the road leading to the University centre. Although arrows hit the outside of the building, the Centre Director wasn't hurt since he was locked inside watching every move made by the warriors through the windows. The arrows got the building by mistake—we were not the target, their target was the opposing side. As a result of the trouble, Air Niugini flights to Wapenamanda have been suspended indefinitely. Our study materials went to Hagen and then back to Moresby. I couldn't go to Hagen to pick them up because an Engan businessman was held up and shot dead by a Hagen gang. The Engans in revenge kidnapped a Hagen man into a bus and brought him to Enga. I don't know what happened to him. The two sides are still looking for targets on either side to clobber. I don't know whether our students will be able to complete their distance courses on time, materials being diverted to Moresby, tutorials being cancelled, students being too scared to bring in their work and post offices being closed are all hassles the Centre is trying to cope with.

Is there an alternative research approach which is ideologically and procedurally compatible with critical practice, and with the reality of distance education in Papua New Guinea?

Critical research strategies can assist devalued Others to understand the practices which define their positions and to disclose how these practices have been incorporated into their lives, and how they can be challenged and transformed. What is called for are research strategies which construct an agenda of the Other by the Other rather than privileging the assumptions of the researcher.

Participative research methodologies, such as action research, redress power relationships and privilege Others to define research questions and issues and to express Otherness.

Dialogue is a dominant discourse in much of present day distance education literature. Evans and Nation (1989b) point out that writers as diverse as Perraton and Holmberg explicitly incorporate notions of dialogue within various pedagogies of distance education. Few writers would be prepared to argue any longer, as Modra (1989, p. 139) does, '.... that distance education was and is—with almost no exception—an individualistic, asocial process'. The issue of dialogue in distance education is not whether it is possible but how to create the conditions for dialogue (see Nation, 1991). There is no reason why research in distance education cannot adopt some of the dialogic strategies being developed in the emerging pedagogy of distance education.

The focus of this research therefore is on the development of the dialogic production of multi-voice, multi-centred discourses, and journals, which according to Tripp (1987), are 'sites of dialogue' and are one of the means to establish these discourses. Although professional journals are relatively untried in distance education research (Fitzclarence and Kemmis 1989; Modra 1989), and even less so in the context of Papua New Guinea, they have advantages for research in distance education because they can elicit those multi-voice and multi-centred discourses at a distance. They can overcome at the same time absence and presence in distance education, and are a recognition that distance relationships are no less 'normal' and 'real' than face-to-face relationships are in contemporary society.

## Journals as voices of Others and sites of Otherness

Tripp (1987) reminds us of the long history of journals in research from science to anthropology but notes that each discipline nonetheless has developed specific rationales and procedures defining their use. Teachers' journals are less recognised in research but are developing a legitimacy as effective tools for professional development (Holly, 1984) aimed predominantly at self-understanding (Tripp, 1987):

> ...it must be primarily for the author's own use: that is, both a record of what has been observed and thought, and an on-going process of generating and thinking through ideas, by holding them still so that they can be worked on in depth and over time (p. 10).

Journals would appear to be capable of more than this in research involving distance students. Journals are sites of dialogue and negotiation and alter power

configurations in research by empowering participants, and providing time for reflection. They enable Others to set the agenda for research and to articulate their personal histories to assist in the understanding of present circumstances which situate their lived experiences.

Smyth (1989a) puts forward a very useful framework to support the critical practitioner's use of a journal which involves four stages of describing, informing, confronting and reconstructing. The following extracts from a teacher's journal provide some insights into this process.

**Describing**—What are my experiences of being a distance student?

> (TR – 18/4/91) I feel I am running out of time, before the examination in 5 weeks time. Maybe I should blame myself, but work commitment is another problem. Being on boarding duty this week does not even help. Much of my time is spent on preparing lessons [thirty two, 50 minute lessons per week]. I am sure I can do it if I had all the free time. I would rather prefer full time study than extension. It's really a burden. Should I give up? Maybe I should press on.

It is not sufficient to have participants merely express or assess their own experiences otherwise knowledge simply becomes self-affirming and is relegated to the unproblematic. Description, of itself, prevents the disclosure taking place of the partiality of experience and knowledge and the 'contradictoryness' to be found in the actions of distance students.

**Informing**—What is the meaning behind my actions?

> (TR – 17/4/91) I get really frustrated at times when I see my friends take up the profession that I should have also taken up [accountant]. Maybe I should be satisfied with what can I do but again I have this other desire to *better* myself. Probably, I'll be satisfied then if I were to improve myself; Qualifications? Position? Understanding myself? Understanding others?
>
> There is still this strong feeling that I can do better than what I can do now. I am determined to do that. Maybe there is a lot yet that education has to offer. What is this? Find out? And so taking up a distance course like this is just like advancing further into a new territory.

Distance students can get a measure of control and ownership over what counts as knowledge if they are able to comprehend the taken-for-grantedness of what they do in their professional and everyday lives.

**Confronting**—How did I come to be this way?

> (TR – 10/10/91) You know I went home yesterday afternoon to the village just to check out a few things that I wrote two days ago. As I started ques-

tioning Mum about some of her experiences and how she was brought up, the sort of education and the values of life, it was fascinating to hear what she was saying. And then my elder sister was also there and maybe next time I'll probably be asking my old grand uncle.

Yeah, earlier on I mentioned something about Mum wanting me to work straight away. I really didn't understand clearly then why she wanted to so much but as I sit now and analyse it I can appreciate what she did for me and my other brothers and sisters. Childhood for my brothers, sisters and I wasn't very happy and was unsteady. Something went wrong with Dad when I was probably two, my elder sister was in Form 1. Dad went mentally mad, became so violent, that all he aimed to do those days was to kill the whole lot of us including Mum. She had to work hard to support all of us. She worked hard to find money for school fees and we worked during holidays to help. The first went through secondary and joined the bank after form 4. The second couldn't go through because Dad in his sickness shot the headmaster's car so they penalised my sister. The next went through and is an engineer and he was responsible for stopping the 4th studying. (He said) that she was a girl and should not continue but stop at grade 6 and help Mum out in the village. And my sister and I went through high school, but the last two boys stopped at grade 6 and 5.

Reconstructing—How can I do things differently?

(TR – 21/10/91) I have another conflict of interest, school work and my reading to be done. I'm lost. I don't know where to begin. This problem seems to be recurring. I guess I'm a victim and will always be unless I talk things over with colleagues. Everyone seems to be busy that's my mentality and perhaps won't assist me with my nerve racking situation. Patience, evaluation and consultation are some of those solutions. I'd try them after speaking to one of my friends.

Likewise discussing assignment topics with friends is a very important aspect of a distance student. I have truly overlooked this skill until it dawned on me when it was mentioned by the lecturer. Actually it was written on my last assignment paper. A skill yet to be utilised effectively. We have our instinct that sometimes we hold back our ideas because of respect for others, consideration, fear and other factors that hinder students from such discussions. Apparently the majority might think some student might have an advantage over others if discussions of that nature eventuates continuously.

The emancipatory intent of the methodology is self-evident, but it cannot be assumed that all participants in the research will achieve reconstruction of their practice. Institutional constraints affecting change are important to recognise in terms of control and domination, but equally they may be taken for granted, or so powerful, as to prevent alterations in day-to-day practices.

(UP - 18/11/91) I think it is hard for teachers to think critically or to take up these calls for social justice. I have, and so have other teachers, tried to bring

> in innovations in our schools and classrooms and talk about these things, but there are these inspectors who control us I think too much. They inspect us for promotion eligibility and some of these national inspectors, well I don't think they know anything. Everything is by the book. We can't look anywhere else, it's there in black and white, and so teachers can't take those risks that teachers in other countries are encouraged to do. It is still the colonial thinking that we natives are limited and have to be told what to do all the time.

What is the process which leads to reflection, understanding and the reconstruction of practice by distance education students? Fay (1977) reminds us that the issue is more complex than simply providing a mechanism for the expression of minority voices in research when he suggests that people who are oppressed in one way or another:

> ...do not perceive that they have the potential power to intervene in the social world and to transform it, making it other than it is. They are passive, fatalistic, dependent, adaptive to whatever occurs (p. 220).

How does this process work at a distance? The realisation that the researcher can enter a dialogical relationship with Others, based on their journals, can provide conditions for distance students to give voice to how their past and present experiences place them within relations of domination and resistance. This requires the researcher initially affirming student voices, but later challenging the partiality of their discourse and the taken-for-grantedness in their lives as distance students and in their everyday actions.

## Researchers as transformative agents

The role of the researcher is not only a collaborative one but involves a transformative perspective as well. Sultana (1989) suggests that transformative researchers:

> ...need to work on the project of identifying individuals and groups of teachers engaged in emancipatory interests or involved in exercising liberating actions. They can offer their support, and share knowledge and insights in carrying out concrete analyses of the power layers within a situation, helping to tilt the balance in favour of the underprivileged. They can make student's contestations available to teachers offering insights leading to reflexivity and praxis (p. 6).

Transformative researchers are able to provide the moral and intellectual leadership required to develop active forms of inquiry, and communities of researchers who are concerned about improving practice and achieving a more humane

world. They are involved in the Freirian pedagogy advocated for teachers of appropriating various democratic and emancipatory voices, and establishing the conditions which foster reflectivity, understanding and change. The transformative researcher lays the theoretical groundwork for all participants in research to examine their own histories, to uncover the connections from the past which define who they are and how they mediate and function in the world.

There is a problematic in the research agenda set by Others. This rests in the taken-for-grantedness and contradictions inherent in actions and beliefs which may be overlooked by Others, unless assumptions situating their actions and issues are problematised in some way. The job of the transformative researcher is to take student discourses and to pose problems, to question practices, and to establish the conditions for self-criticism, as opposed to the traditional researcher, who only observes and interprets the actions of Others.

## Interrogating voices in distance education

Transformative researchers need to help participants to find a language to examine their lives critically and everyday experiences and to create the conditions for students to locate themselves and others in histories that mobilise rather than destroy. As Giroux (1990) suggests:

> ...it is not enough for teachers (and researchers) merely to affirm uncritically their students' histories, experiences and stories. To take student voices at face value is to run the risk of idealising and romanticising them (p. 45).

Journals are not intended merely as artifacts of a research project but are treated as narratives worthy of interrogation.

Journal entries are interrogated for what they say and for their absences, but the voice of the Other is always privileged. The researcher is concerned about 'asking difficult questions, of making trouble' (Tripp 1987, p. 11), but it is the Other which is at the forefront of this reflection rather than the researcher. In this way the journal writer continues to engage with and understand issues at successively deeper levels. This process is akin to an action research strategy of reflection and understanding which leads to an improvement in practice. Stenhouse (1975) introduced the notion of the 'teacher as researcher' and in the context of this research it is well to consider the educational role of the transformative researcher. For instance, in the following extract the transformative researcher is attempting to engage more deeply with the student's existing discourse.

(RG – 30/5/91) Your journal is full of important and interesting ideas. You are also honest and frank in what you write (18/4/91 conditions at home) which is important because it helps to build up a complete picture of what it is like to be a distance student in my mind. It is too easy for teachers to overlook the social and cultural contexts which locate our lives. I am attracted to the expression you use 'Melanesian culture of silence'—an interesting phrase, very evocative. Tell me more. Have other 'cultural' considerations occurred to you which affect formal education and teachers who undertake distance study?

And revisiting the journal by the student resulted in the following elaboration of ideas:

(PS - 2/8/91) With due respect to the many Melanesian values that are of great value to the development of man, there are a few that are a hindrance to justice and intrinsic development of man. One of this is the 'culture of silence' in the Melanesian society, or at least in most cultural groupings in the Melanesian society.

In the villages, exhortations are given by elders, prestigious people and charismatic ones. When they exhort, the learner is expected to sit still and learn. That is formal education in the traditional way. Even in an informal way, when parents instruct their children, an elder brother makes a correction and provides an advice, the recipient learner is expected to be silent and quietly absorb what is passed on. So in any situation where an advice, a correction or a teaching is given, the learner is expected to be respectful, be silent and absorb and remember. Learning this way is the culture of silence. I refer to other situations where the person on the other end is a silent one in the Melanesian society. First advantaged versus the disadvantaged where the silent one is the disadvantaged. Secondly, and following on from this mentality and practice is males behavioural attitude towards women. It is obvious here who is the silent one. These, then are the components contributing to the culture of silence.

And a subsequent response from the transformative researcher posing questions as to how these ideas might relate to a local theory of distance education.

(RG – 11/11/91) The section on silence is very interesting as well and I would like you to reflect on this idea in terms of distance education and how people learn in PNG.

Often distance education is surrounded by silence in learning. The isolated learner without access to tutorials only has the study guides to assist with learning. There are no voices of colleagues, no lecturer just the written word. Is there an aspect of silence in this?

Another point that you make is the role of the traditional teacher. Should the writer of the material attempt to exhort (as the elder does) through the

> teaching materials? Should the distance learner 'be silent and quietly absorb'? What does this suggest for us in the construction of distance materials in Papua New Guinea. Should the writer exhort and simply expect absorption of knowledge which is reproduced in an exam? More importantly is this what distance learners believe is their role in learning—to sit quietly, to be told and then to reproduce. How relevant is the critical reflection or questioning of material to you, firstly, as a distance student and, secondly, to you as a teacher in your own classroom. You refer to the 'person on the other end is a silent one'. Is this a valid conception of distance education in PNG and the relationship between the learner and the study materials. That is, we treat the person on the other end as a silent one or should we try to develop some form of interaction similar to what occurs in tutorials. Does this help to explain why it is difficult to get high school students to discuss ideas or ask questions in the classroom?

The interrogation is a continuing process of reformulating ideas and examining assumptions, but this is not simply a one-way process. Interrogation reaches a higher level of understanding, integrity and relationship when the transformative researcher is interrogated by Others as well.

> (BS – 20/3/91) Richard you have said that we will be more attractive to SDU (Staff Development Unit) for sponsorship if we get credit points with extension studies but is that true? But is that just a trick made by the University? I know some teachers who did their third year at UPNG straight from Goroka, but they can't get sponsorship for their last year of study, so why should a few credit points make us attractive? I don't think it is how many credit points you have but they practise the wantok [favouritism] system at PSA Haus [Head office of the Department of Education]. The sponsorships go to headquarters staff too much.

Holly's (1984) conception of a professional journal is limited to that of a personal discourse, however, as we have seen, journals can be interactive in terms of interrogation. Additionally, the rationale of my research privileges not only shared dialogue, but also the fostering of a connected group of researchers. Student journal discourse can be appropriated to connect and inform a wide group of researchers, this was an added dimension in this research project which was aimed at connecting individuals and sharing experiences and levels of understanding.

## Connecting Others through a research journal

Fitzclarence and Kemmis (1989) argue that distance education need not be an isolated event and that there are indeed good reasons why distance educators should promote a commutarian view of practice and learning. Social reality involves engaging with Others collectively, and it is vital to achieve this within

a critical research framework, in order to re-territorialise and re-write narratives at the individual and collective levels which are:

> ...attentive to critical knowledge that create webs of possibility within shared conversations...that allow teachers and students to see the standpoint of others while simultaneously recognising the partial nature of all discourses (Giroux 1990, p. 52).

Traditional approaches to inquiry which privilege the position and the assumptions of the researcher are further abandoned in preference for the creation of a dialogically connected group of researchers located at a distance from each other through a regular research journal. The journal in this research setting is known as *Wailis* which is *tok pisin* for shared communication. *Wailis* is a recent innovation in the research, and is a part of the continuing re-formulation of the research methodology itself. It is generating considerable 'connectedness' between participants and is developing a shared language amongst the group. The research journal is an additional layer of discourse, reflectivity and reconstruction as it enables extracts from the journals of Others to be shared; critical ideas about distance education and professional development opportunities for teachers in Papua New Guinea to be presented and debated; the Otherness in journals, which is common and fundamental to distance students, such as gender, orientation to others, views of knowledge and the culture of distance institutions to be problematised; and theoretical issues to be introduced to enhance the participants' understandings of the research approach itself. Some extracts from *Wailis* will exemplify this process.

> (AL - 26/9/91) Back in April I wrote in my journal that my wife was supporting me in everything that I do and we share a good understanding about what we both want in our lives and for our kids. Well I have to tell you that what I was saying was not what I really think. Really my wife and I have lots of misunderstanding about our lives. I want her to stay at home and be a good mother to our children, and I tell everyone that we are strong together and achieving our ambitions. But really she is giving me hell in the house. I try to keep it quiet at the school because we live at the school with other teachers and I don't want them to see me as a weak person because of my position in the school. I don't know what she wants. We have food in the house and the kids are healthy and make her happy, but she seems to resent that I go away for inservices and to meetings. I have to do these things and I like doing them. Sometimes its a good break for me to get away and leave her alone. But what I am saying is that I wrote something that wasn't true. I wanted to give you the impression that wives in PNG are happy being wives and that they support their husbands, but now I think that maybe this is the way we can keep our wives at home by telling ourselves that they are happy, and that is what they want when we forget the little arguments that show that they are not happy.

This letter was included in an edition of *Wailis* along with some reflections about it from me.

> This is an interesting reflection and it relates to the next section on Gender that is in *Wailis*. It also relates to what Giroux discusses, when he refers to the way we construct social reality to dominate and to legitimate our actions towards others. It is also a good example of the partiality of what we write. Too often we only present part of the story—that part which we believe to be complete and true, but if we are honest and critical about what we do, we would need to acknowledge that we are selective and partial in the social reality that we portray, and the contradictions between that and our everyday action.
>
> You may have reactions to these ideas which you may care to share with others - supportive, contrary or another interpretation of the information that is presented. Or you may have examples of 'contradictoryness' in your own lives as distance students or as teachers.

I received this response from one of the connected group for publication in a subsequent edition of *Wailis*,

> (PS – 13/11/91) I read with deep thought the letter in *Wailis*. He has critically given thought to a relationship between himself and his wife. I believe that that teacher is searching for a better way of improving his marital relationship. Through the journal he has tried to seek answers to improve that relationship. And from that letter no-one has given him many tips, but by the same token through a journal he has deeply reflected, and pondered so much that he has realised that achieving an aim means working in unison, accepting each other's weaknesses and strengths and working all the time in life to build a lasting quality relationship.
>
> My wife is not at the same level with me in this line of thought. She is contented with doing housework, sewing and working at anything concrete. I guess that is what I have to accept. To use his words 'she was hell in the house', yes, my wife is like that too. We are now in our fifth year in marriage and during the first four years we had a disastrous relationship. I was often the weak one. I have to play soft in arguments to keep the ship of relationship from capsizing. And as the captain, I paid for it dearly, risking my own life at times. My adopted kids and others carried the same painful burden with me.
>
> I guess that it comes home that when we establish a relationship whether it be with our wives, children, social setting or other, we think we know it all. And we think we can be on top of it all. However, along the years we are really searching for meaning, for realities in each other and for the truth. And really I think that truth is what each of us is searching for. We will always search for meaning and for a better relationship and this will never end even to the end of our lives. This is what I believe. We will paint a picture of ourselves and our relationship as best as we can but it is not the whole picture. It is only partial.

And one of a number of responses to the section in *Wailis* on gender from a participant in the research.

> (PV - 3/11/91) Thank you for the copy of *Wailis*. I appreciated reading the articles in it. However, I disagree in reading about distance education as suitable for women. This is a statement men make because they do not want to see women participate equally with men in studying or otherwise. I read about the male participant in distance education praising his wife for taking away the children and making them sleep so he can study in peace. I haven't heard of a husband doing the same to the mother who is struggling in her study. A lot of the women whom I started with left because there is no such thing as 'study in her own time' or because the husband burnt her study materials during one of their domestic rows. If distance education is difficult for male participants it is twice as difficult for a female participant with three or more children and a husband who demands a lot of her time.

The contradictions and the partiality of knowledge and actions are intriguing in these extracts, and need to be further explored. The research journal has considerable possibilities for not only connecting participants in research and empowering them to write into the text of *Wailis* by elaborating, extending and contradicting the discourse of Others, but provides the opportunity for the construction of collective narratives as well as re-writing individual ones.

## Conclusion

It should be understood that the research does not always work so well in practice. Some students are merely descriptive in their journals and have difficulty, or undisclosed objections, in adopting a critical stance to their lives and their practice. The issues raised in interrogation are not always taken up in journals and it is time consuming to maintain dialogue through journals. A large number of students engage with *Wailis*, but others do not and there have been drop-outs from the research group. Teachers in Papua New Guinea are an oppressed group sharing few of the privileges of other public servants, and they are certainly unaccustomed to the work conditions of teachers in Western countries. Participation in the research is an additional task for them, even though as students they gain credit for their participation in terms of a reduction in course assignments. On the other hand, a number of teachers prefer to do all assignments and maintain extraordinarily valuable journals.

Nonetheless, it is evident that the material contained in the journals is rich and extensive. The kinds of things that distance students are writing about in journals are not likely to be disclosed in a questionnaire or an interview. The discourses are created and owned by Others and express the Otherness that constitutes the lived experiences of distance education students. Our understanding of distance education in Papua New Guinea can only be enhanced as a result of privileging the discourse of Others and Otherness.

Chapter 8

# 'Openness' in distance and higher education as the social control of people with disabilities: an Australian policy analysis

**Christopher Newell and Judi Walker**

CHANGES IN THE provision of distance education in Australia, in relation to broader changes in higher education policies (i.e. strategies promoted as enhancing the quality, efficiency and effectiveness of higher education) constitute forms of social control. People designated 'disadvantaged', in general, and people with disabilities, in particular, are being denied equal opportunity to succeed in higher education. The re-emergent concept of 'openness', using distance education methods and communication technologies to expand learning opportunities to meet the needs of all learners, whatever their locations or circumstances, has the potential to increase rather than decrease social control, and to decrease rather than increase access.

This chapter is a continuation of our work on disability issues in Australian distance higher education (Newell and Walker, 1991). Changes are examined in the Australian Government's provision of distance education following its recognition of the potential of distance education and open learning to reduce costs and to increase access to higher education. Anomalies in recent government policies promoting 'a fair chance for all' and 'quality and diversity in higher education' are also analysed. The relationship between distance education and open learning is discussed, and the dimensions of openness defined. In the rush to embrace an open learning approach, for whatever reason, opportunity may be restricted, not enhanced, and its translation may become another form of social control. A 'special' approach to disability, where the emphasis is on *equity* not on *equal opportunity* is rejected and examples cited of how the 'special' can be taken out of higher education without limiting equal opportunity. Finally, we look at ways of improving the status quo and highlight the liberating potential of 'openness' in Australian higher education.

## Overview of changes in the provision of distance education

Since 1983 there has been continuing debate on the provision of distance education in Australian higher education. Despite efforts to rationalise provision in

the 1970s it was not a politically viable proposition until the Australian Government assumed total responsibility for funding universities and Colleges of Advanced Education. Commonwealth (Australian) Tertiary Education Commission Reviews in 1983, 1986 and 1987 all advocated rationalisation of the provision of distance education. Australian Government policy for a framework of rationalisation of higher education, in which distance education was targetted specifically, was eventually formulated in the *White Paper* (Dawkins, 1988) and led to the binary system of universities and Colleges of Advanced Education being dismantled. The specific target in the rationalising of institutions involved in distance education was to reduce them from about forty, to 'about six', in order 'to improve the quality and increase the efficiency of delivery' (Dawkins, 1988, p. 50). In 1989, as part of the Unified National System of higher education in Australia, the Australian Government settled on eight Distance Education Centres (DECs).

Several significant factors can be identified in this rationalisation of higher education in general, and distance education in particular. The first concerns the context within which it has emerged. Australian higher education policy is one element of a particular response to deep-seated economic and social problems. As Karmel notes, four principle objectives can be distilled from the *White Paper*:

> At the macro level:
> - to raise participation in higher education;
> - to improve access.
>
> At the micro level:
> - to improve institutional efficiency and effectiveness;
> - to increase the responsiveness of institutions to Australia's economic and social needs
>
> (Karmel, 1989, p. 8).

The second significant factor is recognition that implementation of higher education policy and management programs was placed in the hands of the Australian Government bureaucracy (a newly formed Department of Employment, Education and Training—DEET), with direct bilateral dealings between individual institutions and departmental officials. As Karmel comments, senior institutional administrators disagreed with government perceptions that the new arrangements would result in less interference and less regulation than previously.

> The flow of requests from DEET for information, the requirements for establishing the educational profiles of institutions, the conditionsattached to the approval of profiles and the financial pressures for amalgamation, all point to greater, not less intervention...moreover, entry to the unified national system requires...agreement to certain conditions relating, for example, to equity, credit transfers and management (Karmel, 1989, p. 13).

A third significant factor, relating directly to provision of distance education and equal opportunity for students with disabilities, is the emphasis on high volume, standardised production strategies in the search for potential economies of scale.

> It is clear...that economies of scale in the production of high quality materials can only be realised with comparatively large numbers of students undertaking any given course. Widespread provision of large numbers of different courses in the same field of study to small groups of students, as occurs under current arrangements, is demonstrably inefficient (Dawkins, 1988, p. 50).

A fourth significant factor is expressed by Johnson (1991):

> Perhaps the most notable outcome of all the policy making and decisions of the last few years has been a diffuse one...distance education has really got itself on to the national agenda (p. 6).

As Johnson emphasises, the Australian Government was taking distance education more seriously and was becoming aware of its particular characteristics, problems and potentials. For example, in 1991, a section of the Higher Education Division in DEET was designated to distance education, large sums of money were put into telecommunications equipment for the DECs, and distance education figured regularly in policy statements from ministers and the Higher Education Council. He also points to the fact that, in the response of their response to the Higher Education Council paper *The Challenges Ahead*, the Australian Vice-Chancellors' Committee (AVCC) made their own policy statement on distance education—the first time they had done so.

As various commentators have observed, the Australian Government's distance higher education policy of high volume, standardised production strategies, was contrary to current industrial strategies (Campion, 1989; Campion, 1990; Campion and Kelly, 1989). In addition, suggestions that the DEC system should be deregulated (eg Lundin et al, 1991) or at least reviewed earlier than the designated mid-1994 date, have turned into demands. In December, 1990 the Higher Education Council said that the whole DEC co[illegible]pt should be reviewed and that, instead of having DECs and non-DECs, perhaps all institutions adopt open learning and off-campus provision. In responding to that paper, the AVCC advised the Government not to wait until 1994 to review the whole system (Johnson, 1991).

In October, 1991 the Australian Government's sequel to the *White Paper, Higher Education: Quality and Diversity in the 1990s* was released 'to take stock of the general impact of the *White Paper* policies, to respond to new issues that have emerged, and to chart directions for the future' (Baldwin, 1991, p. v). It emphasised that:

> These directions build upon the achievements of **growth with equity** in participation that have been realised through the *White Paper* initiatives. They give priority to **quality in diversity** as the system responds to emerging challenges (p. v).

However, on closer examination, the policy statement suggested that times and strategies have changed, and that the debate has moved beyond the agenda set in the late 1980s. As far as provision of distance education was concerned, 'the potential for new technologies and alternative delivery modes to transform aspects of the delivery of higher education and to substantially broaden access' is listed as one of three broad themes comprising the statement. In this section, it is stated that 'institutions need increased flexibility in the use of funds, particularly those provided under the capital program, if this potential is to be realised' (Baldwin, 1991, p. 2).

Where 'inflexibility' and 'rigid structures' were the key, if hidden, words in the *White Paper*, 'flexibility' and 'diversity' as weli as 'quality' were the most often repeated words in Baldwin's *Quality and Diversity* statement:

> **A More Flexible System**
>
> 1.25 The developments described above underline the need for increased flexibility in the higher education system. Innovations in technology have expanded opportunities for developing alternative ways of delivering higher education programs to both on-campus and off-campus students.
>
> 1.26 The Government believes that there is scope for broadening the approaches developed in distance education, especially by the Distance Education Centres (DECS), to cater for the needs of students through 'mixed-mode' provision, for those not easily able to attends a campus because of location or other time commitments.
>
> 1.27 The course materials developed initially for use in distance education could be made more generally available to non-distance education students and this would enable institutions to move away from reliance on conventional techniques like lectures. Flexible packaging of courses could also facilitate further development of approaches such as co-operative education, in which students are able to make use of equipment available at their place of work to carry out course related activities (Baldwin, 1991, pp. 6–7).

The most significant element of *Quality and Diversity* in general terms, and specifically in relation to provision of distance education and equal opportunity in higher education, is the shift in emphasis towards an open learning approach. This contrasts markedly with the concerted effort to centralise and rationalise distance education in the late 1980s. Apart from the mooted changes to the provision of distance education, subject to review by the Higher Education Council, a general move towards the concept of open learning can be seen in a

commitment to funding for a pilot credit transfer project, rewards for credit transfer performance and recognition of the growing trend towards lifelong learning. While these are not necessarily related to distance education, they are often major elements of open learning and will have implications for distance education institutions as students try to put together degrees from several sources. This may auger well in terms of equal opportunity for students with disabilities. However, people with disabilities face structural barriers in life and often do not control the resources necessary to exercise these options fully (Newell and Walker, 1991). So too, the stress on quality in teaching and the proposed establishment of a National Centre for Teaching Excellence in higher education has promise. The question, however, remains as to *who* determines what constitutes quality.

Another significant factor is that in the emphasis on quality, diversity and flexibility the Government has shifted resources and responsibility back to individual universities and so increased institutional autonomy. But, arrangements for the funding of higher education have not changed substantially, and these involve a high degree of centralisation, strict regulation and Governmental control. As Karmel points out:

> The on going obsession with national priorities, guidelines and coordination which imbues educational, research and technology pronouncements is a strange paradox in a society in which in its economic affairs the emphasis is on deregulation and market orientation (Karmel, 1991, p. 11)

An example of this can be seen in allocation and expenditure of funds for equity provisions. The major onus for promoting equity is on the institutions themselves. They are asked to specify equity goals and measures of performance in the light of priorities expressed in national guidelines. Levels of funding have direct regard to the progress made by institutions towards achieving equity goals previously agreed with the Australian Government. Performance based funding against the achievement of equity targets offers institutions greater flexibility in the use of funds to achieve their equity objectives. This arrangement assumes that institutions will continue to assign due importance to equity measures and that, faced with competing internal demands on funds, they will resist pressures to let them slip in their order of priorities. If equal opportunity for people with disabilities is not a priority issue in a particular university, then no funding is available, despite Australian Government policies such as *A Fair Chance for All* (DEET, 1990).

The *White Paper* made a commitment to the development of a long-term strategy that would make equity objectives a central concern. The subsequent strategy document *A Fair Chance for All* also set out national objectives, targets and the responsibilities of both the Australian Government and higher education institutions and gave a framework for measuring and reporting progress (DEET, 1990). The overall objective for equity in higher education was to ensure that all

Australians had the opportunity to participate successfully by changing the balance of the student population to reflect more closely the composition of society as a whole. Specifically, the target for increasing participation in higher education of people with disabilities was to double the 1990 commencing enrolments of people with disabilities by 1995, including an improvement in professionally and vocationally oriented courses of 30% by 1995 (DEET, 1990, p. 40).

Regarding specific strategies outlined to achieve the objective and the targets relating to people with disabilities, the Australian Government suggested that these should include:

- special equipment and facilities
- advisers/contact people to help students with disabilities
- promoting distance education opportunities
- modifying materials and curriculum
- flexible time-tabling and course requirements
- information to students about services available (DEET, 1990 p. 40).

Of course, the Government recognised that comprehensive programs for students with disabilities may need substantial financial commitment and that not all institutions could provide such comprehensive programs.

> The medium term solution would seem to be the development of regional programs. Within this, individual institutions might concentrate on small numbers of students with similar support requirements (DEET, 1990, p. 41).

Here we see the discursive shaping of controlling and segregating mechanisms which accord with the established discourses discussed later.

In general, we may see that the strategies to achieve more equitable access as outlined in *A Fair Chance for All* emphasise the bureaucratic nature and control of equity policy, being oppressive and prescriptive in format. The strategies also needlessly emphasise a 'special' approach to disability, and reflect a lack of expert advice from people with disabilities who also have experience in higher education.

*Quality and Diversity* is surprisingly lean on comment and policy as far as specific reference to access and equity is concerned. Under the heading of 'Diversity of Student Population', two pages (of 58) are devoted to specific examples of 'significant' achievement in each of the designated areas of disadvantage (Baldwin, 1991, pp. 41–42). Thus one paragraph is allotted to each of five specific Higher Education Equity Grants allocated in 1991 to foster co-operative networks for students with disabilities. In addition, the Government announced its commitment to publish summaries of institutional equity plans so that their

achievements (or otherwise) are made public. However, we acknowledge that one of the three major underlying themes of the Statement is '...the potential for new technologies and alternative delivery modes to transform aspects of the delivery of higher education, and to substantially broaden access' (Baldwin, 1991, p. 2).

The strategies to achieve equity and fairness, as outlined in both *A Fair Chance for All* and *Quality and Diversity* do not constitute equal opportunity. DEET's generation of massive statistical reporting and response to voluminous reports, as evidenced in the latest report on disability issues in post-secondary education (Andrews, 1991) do not tackle the attitudinal and structural issues. Apart from a cursory mention of institutions working towards behavioural changes on the part of academic and administrative staff (DEET, 1990, p. vi), no mention is made in *A Fair Chance for All* of strategies and goals towards raising awareness of issues faced by people with disabilities in higher education. *Quality and Diversity* makes no mention of attitude change or investment in staff development activities to pave the way for good teaching practice, including the use of developments in technological systems and alternative delivery modes, let alone changing traditional attitudes towards the concept of equal opportunity in higher education for marginalised groups.

The new initiatives as outlined in *Quality and Diversity*, including those to be reviewed by the Higher Education Council, have significant potential towards equalising opportunity for people with disabilities. However, we can see the move towards 'openness' in Australian higher education becoming another form of social control. Greater onus on individual institutions determining equity priorities, focus on superficial rather than structural causes to attempt to redress under-representation of people with disabilities, and increasing bureaucratisation of equity issue by DEET make this apparent.

## Distance education and open learning

As Paul depicts, open learning is an elusive term, meaning many different things to different people.

> Open learning is merely one of the most recent manifestations of a gradual trend towards the democratisation of education. The use of the term 'open' admits that education and learning have traditionally been 'closed' by various barriers—entrance requirements, time constraints, financial demands, geographical distances, and, much more subtly, social and cultural barriers, as well as those of gender (Paul, 1990, pp. 41-42).

Johnson cites a range of definitions and synthesises their common elements into the following definition:

> Open learning is an approach rather than a system or technique; it is based on the needs of individual learners, not the interests of the teacher or the institution; it gives students as much control as possible over what and when and where and how they learn; it commonly uses the delivery methods of distance education and the facilities of educational technology; it changes the role of a teacher from a source of knowledge to a manner of learning and a facilitator. It justifies these measures by arguments of efficiency, cost-effectiveness and equity (Johnson, 1990, p. 4).

Few people writing about distance education and open learning would treat the terms synonymously and literature on the relationship between the two is growing. The debate on open learning, distance education and the use of such terms stresses the need for careful attention to the distinction between distance education, which is a '*means* by which education is achieved' and open learning, which describes 'the *objectives* and *character* of the educational process' (Rumble, 1989, p. 30).

As Paul suggests, open learning should be viewed as an ideal-type, 'a construct which incorporates a number of fundamental values' (Paul, 1990, p. 46) An educational system cannot be classified as 'open' or 'closed'. Rather it can be assessed as to whether it is more open than a previous alternative. In order to determine this, he presents five dimensions of openness: accessibility; flexibility; learner control over content and structure; choice of delivery system; and accreditation.

In terms of accessibility, distance education as the means to education may lend itself more readily than traditional face-to-face study to resolve, in part, a student's time, location and fiscal constraints. But other accessibility barriers such as formal entry qualifications and participation by a greater range of people are not removed by adopting distance education as a means to education. The same can be said for the other dimensions of open learning, particularly learner control over content and structure of courses, choice of delivery systems and accreditation, although it may be possible for students to pace themselves more flexibly. Distance education systems have been seen as open systems because they liberate students from the need to study in a set place at a set time, but reliance on aspects such as technological systems, a growing feature in distance education, may result in a closed system, especially where expense and inconvenience are incurred. The structural basis of higher education courses is not altered by adopting a distance education mode. Learner, as opposed to teacher, control over content and structure in terms of curriculum, evaluation and accreditation is not yet recognised in Australia as a measure of academic credibility.

Open learning is an educational approach, and can only work if the concept of openness is accepted at all levels. Many distance education systems are open in

some respects and closed in others. Openness, in the sense of access, depends partly on the rules and discursively shaped practices which are devised to control access and partly upon pricing policies, both of which are controlled by the individual university and by DEET, as the funding body.

## Open learning as a form of social control

The social control of people with disabilities has been well explored of late within the sociology of disability. For example, Fulcher (1989) has identified four main discourses on disability. These are the medical, lay, charity and rights discourses. She also identifies a fifth discourse as emerging over the last few years, namely a corporate approach which is geared towards 'managing disability'. As Fulcher (1989, p. 26) notes, these discourses 'inform practices in modern welfare states' and we can see them constituting a form of social control in terms of their role in legislative decision-making, report writing and especially educational practices.

Fulcher observes that medical discourses dominate the social world, penetrating and informing the lay and charity discourses. As she notes in citing Brisenden (1986, p. 174) 'the social world...is steeped in the medical model of disability'. It is medicine which is the main institutionalised sight and the source of the dominant and misleading image of disability as involving physical incapacity. As she goes on to observe:

> A medical discourse links impairment and disability. It draws on a natural science discourse and thus on a *correspondence* theory of meaning. This theory assumes objects essentially correspond with the terms used to describe them. While this theory may have some relevance in the natural world it misconceives the social world...a medical discourse on disabilities suggests through its correspondence theory of meaning, that disability is an observable or intrinsic objective *attribute* or characteristic of a person, rather than a social construct (Fulcher, 1989, p. 27).

Through its assumption that impairment means some form of loss, medical discourse implies a deficit to the individual and through its supposed scientific status depoliticizes disability. In other words, disability is a technical issue beyond the exercise of power and politics. Further, we may see that medical discourse individualises disability, suggesting that individuals have diseases or incapacities as inherent attributes It also professionalises disability, using the notion that such personal troubles are matters for professional judgements and practice (Fulcher, 1989, p. 27).

As Walker (1980) and Borsay (1986) also note, medical discourse on disability ignores the social construction and distribution of impairment. Such discourse

aims intention at changing an individual's actions or life-style or personality, rather than questioning and changing the social structures and/or policies.

The recent literature on the sociology of disability has also stressed the importance of the themes of oppression and dependency in terms of the social control of people with disabilities. As Abberley observes, 'We need a theory and a practice which sees the fundamental problem of disabled people as one of oppression (see Abberley, 1987, for a fuller account of this)' (Abberley, 1989, p. 56).

Likewise, we can see that Oliver has important observations on dependency creation which may be applied to the tertiary education sector in Australia:

> Economic structures determine the roles of professionals as gatekeepers of scarce resources, legal structures determine their controlling functions as administrators of services, career structures determine their decisions about whose side they are actually on and cognitive structures determine their practice with individual disabled people who need help—otherwise why would they be employed to help them? This is not just another attack on overburdened professionals for they are as much trapped in dependency creation relationships as are their clients. However, all is not as it seems, for in a fundamental sense it is the professionals who are dependent upon disabled people. They are dependent upon them for their jobs, their salaries, their subsidised transport, their quality of life, and so on (Oliver, 1989, p. 14).

Within the higher education sector in Australia, including the open learning section, we are seeing the creation of bureaucratic ways of creating and perpetuating dependency and oppression. This is, of course, often done in a well-meaning sense, usually by non-disabled people, towards helping people with the individual troubles which are deemed to lie within them because of their disability. This approach ignores the social nature of disability and the way in which social structures and policies serve to control people with disabilities, inherently creating dependency and oppression.

This is manifested in the exclusion of people with disabilities from policy and decision making within higher education institutions. It is noteworthy that the comparatively few people with disabilities employed in the higher education sector are usually employed at administratively low levels (Newell, 1992). We can also see that the residential requirements of DECs such as the University of New England constitute a form of oppression, exclusion, control and restriction of equal opportunity, as do various other bureaucratic requirements (Newell and Walker, 1991).

## Special education revisited

In many respects we are seeing the development of a special education approach to higher education for people with disabilities in Australia. This is very much the case also for distance education as its thinking is to provide special solutions for individuals with disabilities rather than developing curricula which build upon the *abilities* of all people and potential students, rather than their disabilities. An open learning approach, with its emphasis upon multiple media and student controlled learning provides an exciting liberating potential for people with disabilities. However, we are seeing the development of bureaucratic controlling mechanisms, which are related to Fulcher's (1989, p. 26) notion of a 'corporate approach' to disability. People with disabilities introduced into the higher education sector are often seen by administrators and academics as inherent problems requiring bureaucratic solutions because of the perceived inadequacy of the individuals concerned, rather than challenges which provide for improved pedagogy and structures.

Certainly, it is unfortunate that the lessons learned from primary and secondary education integration do not seem to have been heeded by the tertiary sector in Australia. As Fulcher (1989) notes, in her comparison of Victorian policy and practices with those of several other countries, various forms of social control have emerged, including the use of professional discourses which serve to perpetuate dependency and oppression. Within the so-called 'integrated' environment of Victorian schools there has emerged an informal segregation expressed through the staff attitudes to pupils with disabilities and the allocation of resources.

Likewise, we can see that recent reports on disability and post secondary education in Australia have been informed by discourses which oppress people with disabilities, stressing dependency and limitations which lie within individuals rather than social structures. For example, Power and Stephens (1990) completed a consultancy for the National Board of Employment, Education and Training (NBEET) concerning the outreach and enrolment for students with disabilities. Newell (1991a) produced a response on behalf of the Australian branch of Disabled Peoples International (DPI), the umbrella organisation for and of people with all sorts of disabilities in Australia. This response to the Higher Education Council of the NBEET was critical of the way in which medical discourse had informed the definitions of disability used by Power and Stephens, as well as the exclusion of people with intellectual disabilities from the NBEET reports' survey parameters. Newell also suggested that DPI would be able to nominate a person with appropriate experience of the handicapping nature of Australian education who could assist the Higher Education Council of NBEET regarding these issues. No response was received to this suggestion.

Power and Stephens's report also suggested the employment of support officers for students with disabilities, but could have gone on to discuss ways of supporting staff with disabilities as well, although admittedly this was not within the consultants' brief. Whilst the employment of support officers would have merit, we need to recognise the growing role of the bureaucratisation of disability within higher education and the way in which a professional discourse associated with handling the 'problems' of students with disabilities is arising.

This professional discourse framed the December 1991 *Pathways* conference on post secondary education for people with disabilities at Deakin University. Not only were various critical commentators with higher degrees and disabilities [1] not invited to speak, but the conference was dominated by non-disabled support staff of students with disabilities. The professional orientation of the conference was particularly apparent when a special early morning meeting to develop strategies for ameliorating the status quo was scheduled. It was difficult for people with disabilities to attend at this time, especially those with dependency needs, and it indicated a view that the professionals (predominantly non-disabled) should work together to solve problems for students and staff with disabilities.

Within the Australian higher education sector another example of the dominance of the special education approach is provided by the prominence given by the universities and NBEET to certain types of physical and sensory disability to the virtual exclusion of people with intellectual disabilities (Walker, 1987). A challenging contrast is provided by the work of Uditsky, concerning the potential for students with severe intellectual disabilities to achieve entrance to and success in an undergraduate degree. Uditsky has described a program undertaken at the University of Alberta for students who would otherwise have been spending their days within sheltered institutions. He places stress upon providing a truly integrated environment where adequate support is provided for students on campus to lead the life-style of their choice (Uditsky *et al*, 1987; Uditsky and Kappel, 1988; Frank and Uditsky, 1988).

In a lecture entitled, 'Integrated post-secondary education: expanding the vision' at Flinders University (Adelaide, 5/9/91), Uditsky stressed the importance of giving people with disabilities choices in living the entire university experience (not just attending lectures) while providing adequate support to students and sensitively highlighting the vast options which are available to all students, regardless of their abilities. Uditsky's approach takes the *special* out of education, emphasising abilities rather than deficit, and is based upon a rights discourse. It is in accordance with such critical approaches as Fulcher (1989), Oliver (1989) and Abberley (1987, 1989) and, as such, presents a direct challenge to the dominance of the special approach to education in Australia.

Haskell reacted to such critical approaches to disability. He advocated abolishing teaching sociology of education to student teachers and doing away with a ' "crude social theory of disability as oppression" if they are to undertake their demanding task of teaching disabled pupils' (Haskell, 1990, p. 13). His stance was defensive of a professional discourse and was rooted deeply in the deficit approach inherent in medical discourse

Within Australia we can see that the special education approach, steeped as it is in established discourses to do with disability, has great potential as a controller of people with disabilities in the higher education sphere. This is particularly found in the new professionalization and bureaucratization of disability. As with so many other sectors, support workers for students with disabilities have both the potential to enable but also a potential to control in either a deliberate or *de facto* way.

## Improving the status quo

It must be recognised within higher education that, contrary to the views of writers such as Andrews (1991), more statistical analyses of disability in higher education are hardly necessary. What is required as we have argued here and previously (Newell and Walker, 1991; Walker, 1989) is an open learning approach which provides great potential for people with disabilities to be enabled in their education. As Newell (1991b) and Meekosha (1989) have observed, however, critical research on disability and the experiences of those with disabilities often do not enter the dominant discourses of higher education managers and bureacrats.

It becomes apparent that there are anomalies in the Government's stance on fairness, equity, quality and diversity. In particular, the notion of 'openness' being used by the State could lead to restricted opportunities and oppression of such marginalized people as people with disabilities. The use of established discourses and the introduction of a special approach to Australian distance higher education, along with its bureaucratization of disability, lends itself to the increased control of people with disabilities.

[1] One was an academic with a disability, lecturing in a university School of Social Work, University of New South Wales, who has a critical research and publishing background in this area, as well as in disability and rehabilitation. The other was one of the authors (Newell) who has a consultancy and publishing record in the field which is highly critical of the status-quo and is PhD student with a disability

Chapter 9

# Theorising adult change and development through research in distance education

**Alistair Morgan**

IT WOULD SEEM axiomatic that theory should be a basic tenet of the applied research of the Institute of Educational Technology (IET) at the UK Open University (OU). However, in spite of two decades of research and evaluation by IET, the notion of theory building for understanding teaching and learning in the OU has received relatively little attention. There has been a rhetoric of strengthening the knowledge-base, but again relatively little has been achieved in practice. Some of the explanation for the lack of theory can be attributed to the day to day demands on IET to respond to the 'needs' of the OU—attempting to answer the questions which the OU 'sends in our direction'. Short term studies may satisfy these demands, but this type of work is less likely to contribute to a wider understanding of teaching and learning in distance education. Of course there needs to be a balance, and I am not suggesting the more service-oriented role should be abandoned, rather that more theoretically focussed studies have been under-represented.

Partly, the absence of theory and certainly 'theory testing' in IET is a reaction against the influence of positivism—to engage in theory testing in research in education may seem to be attempting to formulate generalisations which remove education from its context. Recent trends in research and evaluation in education and distance education have been towards more qualitative methods which acknowledge the consciousness of learners in how and why they tackle their studies in the ways they do. The 'project' of illuminative evaluation has been hugely influential here (see Parlett and Hamilton, 1977; Parlett and Dearden, 1977). It has served to counter the excesses of psychometric research and experimental studies in education and distance education. Although in distance education, a number of other factors contribute to a 'hegemony of survey research' (see, Morgan, 1990) in research and evaluation studies.

Illuminative evaluation has focussed on individuals' learning and their contexts of learning—to provide holistic understandings of teaching and learning of particular courses. The emphasis in this work has produced rich descriptions of learning and there has been some progress towards theoretical development.

For example, the concepts of the 'hidden curriculum', the 'learning milieu' and 'cue-consciousness' have been elaborated in the reporting of research from the illuminative evaluation, (Miller and Parlett, 1974; Parlett, 1977). However, there has been less attention to theorising explicitly from such work. The absence of social and political analyses of descriptive studies leaves matters such as power and authority invisible or unproblematic. In spite of this reservation, I do not share the hostile views of Atkinson and Delamont toward illuminative evaluation. They argue:

> Paradoxically, the relative shortcomings of the illuminative approach mean that its proponents are, in the last analysis, as limited as the practitioners of the denigrated 'agricultural-botany model'. Without an adequately formulated body of theory or methods, the illuminators have been, and will be, unable to progress and generate a cumulative research tradition. They cannot transcend the short term practicalities of any given program of curriculum innovation. They merely substitute one variety of atheoretical 'findings'—based on observation and interview—for another based mainly on test scores (1986, p. 252).

Although these are important criticisms, I do believe that case study research can provide more general insights which contribute toward theory. However, if sociologists of education—such as Atkinson and Delamont—argue so strongly against illuminative evaluation in classroom research, how can we expect to make progress in distance education research which has a far less developed intellectual tradition? I am attracted to some of the recent work of Martin Hammersley (1990) and his views on theory building. He calls for studies to at least be related to each other:

> What we have (Lacy, Hargreaves and Ball on polarisation-differentiation theory) are three pieces of ethnographic work which, in a limited way, at least, build upon one another, developing and testing a particular theory. We look in vain for other examples of such complementarity in the sociology of education, and there are not many examples in sociology generally. The tendency has been for studies to investigate a diverse range of phenomena, their authors moving from one topic to another, with few attempts to capitalise upon earlier work. Yet unless researchers work collectively on particular theories, investigating cases which are critical for those theories, there will be no cumulative development of knowledge (p. 111).

The point about 'the cumulative development of knowledge' is the crucial issue in relation to research and evaluation in distance education. In a monograph on case study research in distance education (Morgan, 1991), I described how the concept of 'orientation to study' is useful as a 'backcloth' for making sense of how students tackle their studies and suggested that 'orientation-approach to study' can be regarded as model or a theory in distance education. The research in student learning, derived from the work of Ference Marton and the

Gothenburg Group, provides a model for understanding learning which is grounded in students' realities of study. This relational model of learning links together the concepts of 'learning outcome', 'approach to study', 'conception of learning' and 'orientation to study' (see Marton, Hounsell and Entwistle, 1984). This work identifies 'approach to study' as a crucial issue for the quality of 'learning outcome'. In terms of improving students' learning, it suggests that aspects of course design and assessment, and helping students develop their conception of learning, are likely to be the most fruitful areas for 'interventions' by teachers.

The concept of 'orientation to study' enables one to relate theoretical ideas at the detailed level of the learner engaged in a particular task, to the broader structural issues concerned with the interactions of study with people's lives. Through the concept of 'orientation to study' one can relate studying to adult learners' social and political contexts, thus recognising social structures and human agency in adults' experience. In this way, 'orientation to study' can provide a conceptual bridge between research and evaluation studies of a qualitative-illuminative kind and the critical-structural theoretical perspectives elucidated by Carr and Kemmis (1986).

In this chapter I wish to consider ways of understanding adult change and development, and to focus particularly on longitudinal studies of student learning. One of these studies, currently in an early stage, is making a specific attempt to understand student learning in a broader social context. This new longitudinal study is located between a qualitative-illuminative approach and a critical-structural approach. In attempting to make this theoretical linkage, there are parallels to what Evans and Nation have termed 'critical reflection' (see Evans, 1991; Evans and Nation, 1989a, pp. 10-11, 237-252). Drawing on the work of Giddens (1984) and Schön (1984), they have identified reflection as a central focus of learning and also an approach to research, which has educational change as a focus. Evans and Nation define critical reflection as follows:

> Critical reflection is the process through which human beings use their analytical powers to assess elements of their lives against their explanatory frameworks (theories). Critical reflection is the precursor to change because through the recognition of human agency, it encourages people to seek to improve their lives in their own terms (1989a, p. 10)

They have interpreted the work of critical theorists in a fairly broad manner so as to develop the notion of 'critical reflection' as a lens through which to gaze upon theory, research and practice in distance education. This approach has the potential to integrate the view of research as critique (as in the critical-structural perspective) with studies which originate in the qualitative-illuminative tradition. This theoretical focus seems to be particularly relevant for longitudinal studies, which focus on human change. This new longitudinal study will form

an important part of the foundation for research and evaluation studies in IET and also contribute to the development of the 'new educational technology'. The emphasis is on an holistic approach to describing students' experiences in a social and political setting. Such an holistic focus for understanding human change can be regarded as a 'fundamental tenet' for collating a series of research studies of varying length and focus.

There has been little research or evaluation in distance education which adopts an holistic focus for understanding the experience of 'being a student' and focusing on issues of adult change and development. For example, generally, research and evaluation studies in the OU have concentrated on individual courses or particular aspects of media. These evaluation contexts may reflect the academic, production and administrative divisions within the OU, however, they do not necessarily represent the students' realities of their study.

The lack of research is surprising because OU study is often—at least rhetorically—associated with adult change. It is recognised that OU study involves far more than merely learning bodies of knowledge or particular skills. However, the processes of change and development from the learner's perspective are poorly understood and rarely the subject of research.

There is change in the way students are taking OU courses. The 'dominance' of the undergraduate program and the assumption that students will progress from a foundation course to a degree is changing rapidly. Less than half of the new students now finally registering on a foundation course are likely to proceed to graduation. It is partly in recognition of this that the OU Senate has approved the award of an OU diploma based on 4 credits, 6 credits being required for an ordinary degree. Many more students are now engaged in the study of individual courses under the rubric of 'continuing education'. Consequently, there is a need at the OU to develop a detailed understanding of how students change and develop in order to build on what is available from more routine data collection or individual course-focused evaluations.

## Levels for understanding change

Within the broad grounding above, it is possible to conceptualise the following three closely related levels for looking human change and understanding the interactions of OU study on people's lives.

- Conceptual changes
- Study patterns and course gains
- Adult development—change in socio-political context—student empowerment.

This chapter will consider briefly some studies which have addressed these three levels of change.

## Conceptual change

This area of change is perhaps the most readily acknowledged in post-compulsory education, as it focuses on the subject matter and the content of what students actually gain from a course. It is central to phenomenography, exemplified in the work of Ference Marton and others (see, Marton, Hounsell and Entwistle, 1984). The aim is to understand the qualitatively different ways in which people understand concepts. What are the outcomes of learning? Besides scores on some test or examination, in what ways are students' understandings of key concepts more sophisticated? A rather different picture is gained by researching learning using phenomenography. For example, although students may have gained sufficient scores to pass a course, phenomenography can show that the quality of their understanding has changed very little. Such work becomes important as a basis for improving learning. Enabling students to become more aware of how they understand or misunderstand key concepts provides a starting point for helping students develop more sophisticated understandings (Ramsden, 1988).

## Study Patterns and Course Gains

How do students come to be more competent learners? What is the nature of the changes which occur as students progress from a first year or foundation course through to graduation? The longitudinal research study carried out by the former Study Methods Group in IET followed students over a period of six years from foundation course to graduation. This research is derived from the work of Perry (1970). It describes how students changed in their conception of learning, how they changed in their use of terminology and language in a subject area, and how study patterns changed and developed over time (Beaty and Morgan, 1992). The changes were described under three major themes: confidence, competence and control in learning. Some of the evidence of change included the ways in which students referred to using the language of a subject area. Language which had been described as jargon in the earlier interviews, was later described as part of the discourse of the subject area. This type of change can be regarded as a gaining of power, in the sense of being able to participate in the discourse at a more equal level.

For many of the students in this study, by the time they approached graduation, they had developed a certain degree of control over their learning—they had developed into more independent and autonomous learners (in the sense of taking control and responsibility for their learning). Although this was a longi-

tudinal study, the emphasis was more on aspects of study skill, rather than on broader issues of the interactions between study and peoples' lives.

## Adult development—change in a socio-political context

What are the broader longer term gains and changes for adults studying part-time at a distance? Understanding the broader interactions between study and people's lives contributes powerfully to developing our teaching and learning provision for an increasingly diverse student population.

Earlier studies with OU students illustrate some of the broader gains from study made by students. Those with vocational or personal intrinsic orientations to study described their gains from study in more general terms and referred to their sense of self-development. Some students talked about 'a new awareness and seeing themselves and things differently', they were references to seeing the world differently (Taylor, Morgan and Gibbs, 1982, p. 10), for example:

> I can see the other side of the coin a bit more and stop and think—It's made me feel different somehow, maybe just doing something and applying myself—I'm not so interested in trivia—its hard to describe, but I used to read the *Daily Mail* (right wing tabloid newspaper), but I just couldn't do that now, there's nothing in it. Just reading a different newspaper, I seem to be looking at things differently.

From a re-analysis of data from student interviews over six years, Marton, Beaty and Dall'Alba (1992) identified another conception of learning (a sixth in relation to Säljö's (1979) scheme) as 'changing as a person—a fundamental change about oneself and a way of seeing what is learnt'.

The current longitudinal studies with OU students are looking at these wider issues of change and development. Twenty eight students in their first year on the Technology and Social Science Foundation courses have been interviewed about how they came to be studying, about their study patterns and about how they cope with the demands of OU study. (These students did not have the educational qualifications for entry into a conventional university.)

One of the key themes emerging from a preliminary analysis of the interviews is the way in which relationships with partners impinge on OU study. The impacts of study on some students' lives created polarisation in their domestic household units. One of the clear themes emerging is 'education without consent' (Holly and Morgan, 1992). This is a crucial factor in women's experiences of being students. Some receive no support or encouragement from their partners, hence, their study becomes a clandestine activity. For them, study is constrained by the prevailing convention and social structures; they are required to fulfil the 'traditional' domestic demands of providing meals etc, instead of

studying. For such women, studying is done almost in secret when their husband or partner is out of the house. One student gave an account of disguising course units so that she could read in them in the living room while her husband watched television.

> Sometimes I slide the books inside a magazine. He thinks I'm reading *Cosmopolitan*! [a women's magazine] He doesn't seem to mind that.

Such women experience hostility from their husbands or partners because they, the latter category, feel threatened and intellectually insecure. They face a familiar dilemma which is embedded in the gender structures of society: a choice between supporting a personal relationship and intellectual development gained through study. When women's study takes them into areas in which the husband or partner has no knowledge (in the case of this research, social science), it may be labelled by such men as 'woolly' or a waste of time.

A move towards empowerment seemed evident for another student, who was studying the OU *Technology* foundation course. He worked as an engineer in the printing industry and was studying for vocational reasons. He had worked previously for News International at Wapping in London which was the scene of a bitter industrial dispute in the late 1980s. In the course of the dispute he realised the biased ways in which the mass media reported the dispute. He said, 'I was there and it was just not like the way the media reported it.' It was after these experiences that he described how he became aware that the media represent the interests of the dominant social groups. This previous work experience meshed into the issue-based curriculum of the *Technology* course, and in the interview he talked about becoming more aware of the contested nature of society, as he studied material on health policy and national energy policies. The emancipatory potential of OU study seems to be evident from this case.

These are some of the preliminary findings from this longitudinal study. The aim is to continue studying these students. Besides progression to graduation, it seems likely that becoming a dormant student (stopping after one of two credits, although still formally registered) will be an important feature for some of this population. Their aims, concerns and purposes for study will have developed and changed during their periods of OU study.

## Conclusion

Research into the experience of being a student, and attempting to theorise adult change and development, will provide an understanding about learning which is not evident from traditional indicators of pass rates and test scores. We shall gain a better understanding of the outcomes of learning, when they are viewed

from the students' perspectives. Theorising student learning in terms of orientation-approach-outcome generates a model of learning which is firmly grounded in students' realities. By gaining insights into the interactions of part-time study and peoples' lives we shall be in a better position to improve our practice and to understand the broader social and educational processes surrounding adult learning. In this way, the relationship between theory and practice will be more clearly indivisible in the work of IET and in the study of educational technology and distance education more generally.

Chapter 10

# Life course analysis and research in distance education

**Nick C Farnes**

EDUCATIONAL EVALUATION IS often narrowly focused on the educational back ground of students, the course itself, and outcomes defined as the success ful completion of the course. Courses tend to be seen only in relation to students' educational careers, rarely is a course viewed in the full context of students' lives. This context includes the multiple and interacting 'careers' in other areas of their lives—marital, childcare, employment, health, leisure, social as well as education, and the wider sociohistorical context. Life course analysis (Elder, 1978, 1981; Bertaux, 1981; Hareven, 1982) enables an examination of the place and influence of a course in students' lives, the interaction between what is happening in their lives and the course itself, and the influence of the course on their subsequent activities. It emphasises the wider sociohistorical context and how opportunities and constraints affect and have affected options and activities over time. This paper reports a practical application of this methodology and begins to develop theory of the life course.

Research carried out with Open University (OU) Community Education students in Glasgow (Farnes, 1990) illustrates the application of this approach. The research methodology (Johnson et al, 1981) involved collecting 60 life histories from a random sample of women who had taken courses around two years previously in 1986.

The analytical procedure adopted in this study was to:

- review the social and historical contexts of students' lives;
- examine the patterns of students' lives;
- consider where community education fits into these patterns
- assess what influence participation in the OU courses may have had

A more traditional evaluation approach which asks 'what difference does the programme being evaluated make?' (Caplovitz, 1983, p. 391), would concentrate on the fourth point and so give less attention to the other three points. The

approach used in this study moves in the direction of what might be called 'indirect' or 'incidental' evaluation where participants in an activity are not asked directly about the activity at all, but are asked about their lives, what they have done and why, and how they feel about it (Johnson et al, 1981, p. 58; French, 1989, p. 14). The significance of the particular activity is assessed by how much and in what way it features in individuals' accounts. The traditional 'direct' approach is at the other end of a continuum and concentrates on the activity in question from the start and people are asked about their views or reactions, what influence the activity may have had, and finally about themselves.

Indirect evaluation shares with illuminative (Parlett and Hamilton, 1977) and the goal-free approach (Scriven, 1972) the concern for the wider context although these latter approaches are likely to focus on a particular activity or intervention. The direct approach employed by traditional methods assesses the extent that participation in an activity achieves specified objectives (Bulmer, 1982; Illsley, 1980). The indirect method not only provides a fuller picture of participants' lives but is likely to reduce the tendency to over-report and to attribute undue influence to the activity under consideration. This study only goes some way towards this in collecting life histories where students are asked about their lives first and only later move on to talking about the courses. Nonetheless, the students were well aware that the study concerned OU courses and it would have been difficult to persuade them to take part in the interview unless this connection was made clear. However, the indirect approach could be adopted to evaluate the influence of social policies generally on people's lives.

To present an example of life course analysis as simply as possible, the next section briefly reviews the educational context of the students' lives and then illustrates the patterns of their educational careers. This is followed by a summary of the influence of the OU courses on their educational careers. Next, examples of other careers are presented and the interaction between these careers and the OU courses is considered. Finally the concepts of resources and resource management together with a resource based model provide a start to theorising about students' careers and the role of agency within changing opportunities and constraints.

## Educational context

The educational system in the UK has undergone frequent modifications since the war which have often been linked to developments occurring outside education, in particular demographic and employment changes. Also, involvement in the educational system is regulated by legislation and examinations, and constrained by the available facilities and opportunities; and alterations to these

affect individuals' options and experiences. Factors outside the system and changes in these factors also affect individuals' participation and success. However, changes in the educational system have a differential impact, some people are untouched while others may be significantly affected. The extent to which changes in the educational system have an impact depends on what stage individuals are at in their educational careers which may include preschool, primary, secondary, further, higher, adult and community education.

An example of history-graded changes (Baltes et al, 1980, p. 75) is provided by the raising of the school leaving age in 1973 which meant that for children born from the end of 1957 onwards there was a huge increase in the proportion that had 11 years of schooling. Other changes associated with the extra year led to many more children taking and passing exams—as a result of which younger adults generally have more qualifications than those who are older—and, paradoxically, it has also led to a wider experience of failure (Gray et al, 1983, p. 172). Much of adult and community education is non-normative and may occur at different times in an individual's life. However, this kind of provision is particularly dependent on historical time as opportunities may expand or contract. For example, there were no opportunities before 1977 to take OU Community Education courses anywhere, and in Glasgow it was not until after 1981 that these became widespread.

## Educational careers

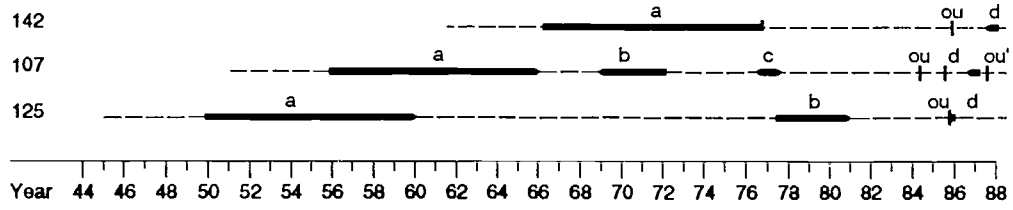
Much of educational provision is designed on the basis of linkages between the different types and levels of courses. The stages of schooling are usually age-graded and education generally is graded by level as well. These linkages between stages and levels can be end-on; for example, where primary schooling is immediately followed by secondary. Or there can be intervals over which the linkages operate; for example, completing 'O' levels at school and returning to study for 'A' levels 20 years later. Linkages may constrain the next type or level of course in an individual's educational career but not when (if ever) this opportunity is taken up.

Within a particular stage or level of education there are critical links between what happens during a course and the outcome at the end. Failing various hurdles along the way or at a final examination can prevent the desired connection between a course and an award being made. Thus, there are two kinds of educational linkages: 1) *between* stages or courses and 2) *within* courses between the experience of learning and certification. In examining individuals' educational careers, attention can be given to the relationship between the various stages or courses and to the relationship between the nature of a particular course experience and the outcome.

For the students in the Glasgow sample, schooling occurred at different historical times but it always started at approximately the same age (preschool education was rare until the early 1970s), even though some stayed after the minimum leaving age. After leaving school some students took courses quite soon, while others waited longer but still took them between leaving school and beginning their OU courses. For those who took courses during this period, these courses were not only located at different historical times but were taken when the students were at different ages. While all the students were involved in OU courses and some with further education around or after 1986, this occurred when they were at different ages.

Educational careers can be represented as lifelines which provide a basis for defining the components and considering linkages between them (for the origins of this technique see Buhler and Goldenburg, 1968, p. 60; Super, 1980, p. 291; Dex, 1984, p. 8). The chart below gives the educational careers of three students.

**Chart 1 Lifelines of three students representing their educational careers.**




The career of the first student (number 142) begins with 11 years of schooling labelled (a). She is involved in no other courses until the first OU course (ou), the start of which is shown in this and subsequent charts by the short vertical line. After this course she started an 'O' grade English course shown by the line marked (d).

The next student (number 107) has 10 years of schooling (a) and these are completed before the school career of the first student has begun. After a gap of three years she starts training as a nurse (b). Four years after completing her training she takes a year studying 4 'O' grades (c); she takes her first OU course seven years later and another soon after (ou); this is followed by a computer studies course (d) and another OU course (ou').

The third student (number 125) began school in 1949 but does not go on to further education and training until 17 years after leaving school, this was also nursing training and is labelled (b). Sometime after this training she takes an OU course and a short first aid course (d). Two of these examples involve nursing training, one student at age 18 who started in 1969 while the other started in 1977 when she was 33. All students took an OU Community Education course in 1986.

For over a quarter of the students the OU has been their only experience of education following school; less than a fifth had returned to education before the OU courses but have not yet returned after; the biggest group of over a third did not return until the OU courses and then went on to other courses; and another fifth took courses after leaving school and after the OU courses. The kinds of courses that students go on to after the OU courses may be linked to their previous qualifications.

About half of the students said the OU courses helped them to go on to other courses or to think about this. The OU courses are more helpful to those who had not previously returned to education and to those who go on to academic and professional courses. The OU courses help students to gain confidence in their ability to study and enable them to find out about other educational opportunities.

## Other careers

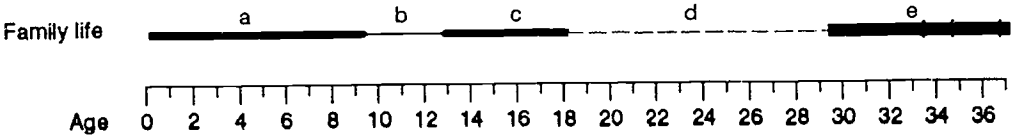
The other careers which may have important influences on students' educational progress include their family, childcare, health, employment, and social and community. All these careers, like education, need to be seen in their sociohistorical context. For example, there have been major changes in the following areas (Farnes, 1990):

- family life, especially increased marital breakdown
- childcare, with families having fewer children
- health, with certain improvements but a high incidence of depression among women
- employment, with high unemployment during recessions, and changes to social networks following redevelopment

Individuals' careers contribute to and reflect these changes. Various careers are illustrated below.

**Family careers**
Students' family careers can be represented by lifelines to show particular features and changes. Chart 2 illustrates the family career of one student whose educational career is represented in Chart 2:

**Chart 2 Family career for student number 107.**



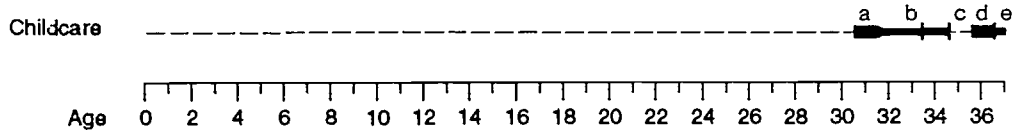
To show each student's childhood and adult family careers on the same lifeline and to keep the representation as simple as possible, four thicknesses of line can be used. A dotted line (d) shows when the student was single, either before getting married or following a separation; or if in childhood both parents died before the student left home. A thin continuous line (b) shows that the student was living with one parent; a thicker continuous line (a) shows that both parents were present or that a single parent had remarried and the student had a step-parent (c). The fattest line (e) begins when the student gets married and continues until this marriage ends and restarts on remarriage.

Students' reactions to the course are influenced by their marital life: of those who remain in their first marriage a quarter say the courses helped in their relationship with their husband; but the helpfulness of the courses for those who have been separated and divorced depends on when this occurred in relation to the courses. Those undergoing separation or in their second marriage find the courses helpful in this area of their lives, whereas those who are already separated find the courses helpful in other areas.

**Childcare careers**

Another important area of family life concerns students' childcare careers.The childcare career of the student in the previous section is given in Chart 3 below.

**Chart 3 Childcare career for student number 107**

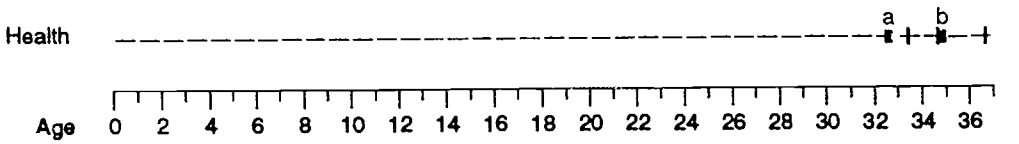



The dotted line begins at students' dates of birth, and three stages of childcare are shown by a thick (a), medium (b) and thin line (c). The beginning of the thick line indicates the birth of the first child and continues for the first year. This is then followed by a medium line that continues for the next three years until the child is four when the line becomes thin. If another child is born a new thick line (d) begins and lasts for the first year of this child, followed by the medium line (e).

Nearly half the students are involved in the care of children under 4 years old and around three quarters say that they changed what they do with their children as a result of the courses. This compares to less than a third whose children are older. It appears that the help the OU courses provide concerning childcare is systematically related to the stage of their childcare careers in that those in the early stages find the courses more helpful in this area.

**Health careers**
Health throughout an individual's life can be considered as a career. An example is presented in Chart 4 below for the same student up to the date of the interview.

**Chart 4 Health career for student number 107**

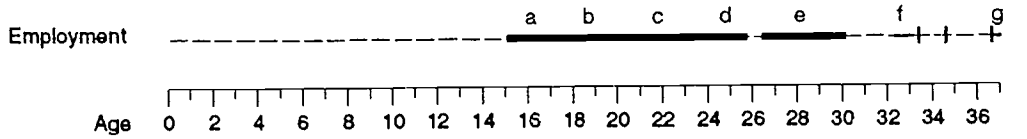



The lifeline shows two periods of ill health. When this student was 32 she had a miscarriage (a) and later a stillborn baby and hospital treatment (b) which occurred around the time she started her second OU course.

Whether the OU courses provide general or specific help depends partly on when the students had their health problems. General help from improved morale and confidence was reported by two thirds of the students and specific help by a further 20% who also had current problems. Nearly 40% report making practical health changes concerning diet, smoking or exercise and most of these have also changed the diets of their children.

**Employment careers**
The concept of career is most usually applied to employment and the employment career of the same student is shown in Chart 5 below.

**Chart 5 Employment career of student number 107**




The thicker line shows full-time employment and the thinner line part-time employment. This student's first job was as an apprentice dressmaker for three years (a); she then began working and training as a nurse (b), followed by employment as a nurse (c). Next she worked as a chambermaid (d) before a break in employment, after which she resumed nursing (e). There was then another break which was followed by part-time nursing (f), a further break, and then part-time playleading (g).

Where students happen to be in their employment careers (that is, not returned to work, returned not working, or working) influences their reaction to the courses. If work is an active area of their lives, or is a new area which enters

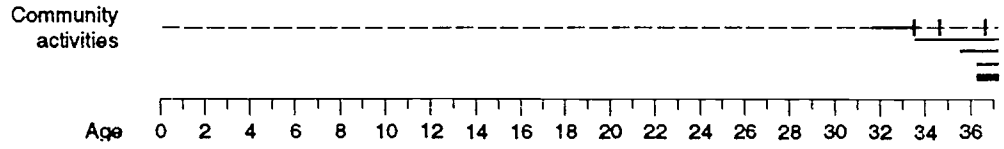
their lives around the time of the courses, then they are more likely to find the courses helpful in getting a job or in their work. Those who return to work after an OU course are also more likely to take up further education.

For married women the employment status of their respective husbands may have an important influence on their educational and other careers. In this study, husbands' unemployment was recorded as a separate lifeline. Two thirds of the students with husbands who experience unemployment find the courses particularly helpful in getting work. The husband of the student shown above became unemployed about one year before the interview.

**Community and social careers**

An individual's involvement in community activities and responsibilities can be represented as a career. An example with each activity shown separately as a displaced line is given in the chart below:

**Chart 6 Community career of student number 107**



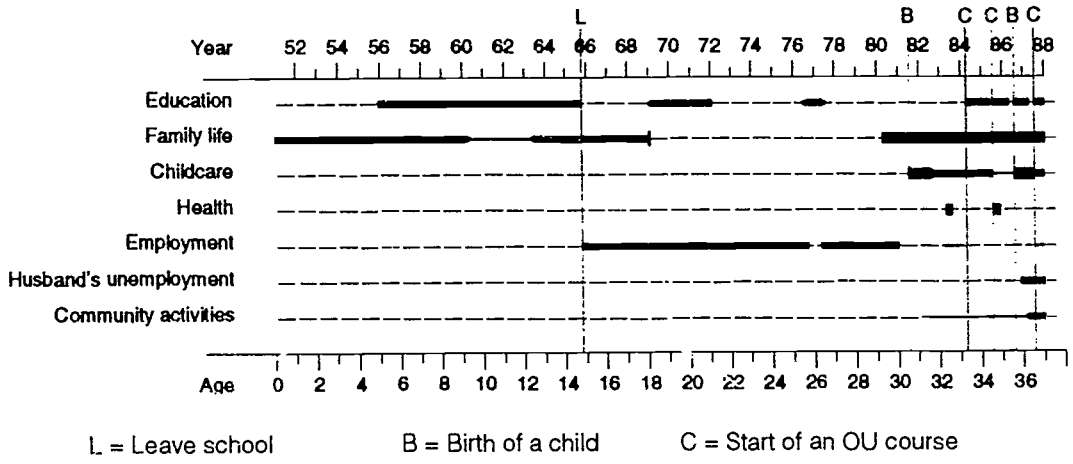

This student did not begin her community career until she was 31 when she became involved in a Mother and Toddler club. She then joined a housing association (shown by the displaced second thin line) and left the Mother and Toddler club around this time. Later she became a helper in a school Saturday club and for the Woodcraft Folk. The thicker line shows when she began a community responsibility as a committee member of a parent-teacher association.

Just over half the students were involved in community activities or responsibilities before the start of their first OU course and many of them came to the OU courses in connection with these. Most of the students had become involved around the time of the courses or afterwards and many took on responsibilities. Nearly half took up their first community activities or responsibilities around this time. Those who start community activities for the first time and those who have ongoing responsibilities are more likely to use what they have learnt. Students who are involved in the community are more likely to take up further education.

An individual's social life and friendships change over time; gaining new friends and losing old friends can be represented as a social career. Irrespective of whether these students knew members of the group before the start of the course, over half reported that participation in the courses led to close friendships.

**A set of careers**
All the careers for a particular student; including, where relevant, the husband's unemployment; can be represented as multiple lifelines in a single chart.

**Chart 7 Complete set of careers for student number 107**




The juxtaposition of the lifelines enables actual or possible interactions between the careers of this student to be identified. In particular around the time of the OU courses we can see that:

- She began her first OU course in 1984 after she finished her first part-time employment, after her miscarriage, when her first child was nearly three and when she was involved in the Mother and Toddler club (employment–health–childcare–community–education careers).
- Between the second and third OU course (1985-87) she had another child; her husband became unemployed; she took on a community responsibility; and began a computer studies course (education–childcare–husband's unemployment–community–further education).
- Around the time she started the third course (1987) she began part-time employment as a playleader (education–employment).

While these interactions are suggestive, the nature of the linkages requires further consideration. In particular, changes in careers and the help provided by OU courses can be examined. She reported that the courses helped her to cope with her daughter's grief and other aspects of childcare; to get the playleading job; to go on to other OU courses; to use what she had learnt in her community activities; to make close friends; and to be more patient and relaxed.

The careers in which there were changes and course help are summarised below in Table 1.

**Table 1 Changes and course help for student number 107**

| Career | Change | Course Help |
|---|---|---|
| Education | OU & computer studies | Confidence and progression |
| Married life | None | None |
| Childcare | New baby | Daughter's grief etc |
| Health | Stillborn baby | More patient and relaxed |
| Employment | Get part-time job | Confidence and knowledge |
| Husband's unemployment | Begins unemployment | Not applicable |
| Community activities | More acts and responsibilities | Use what was learnt |
| Social | Made close friends | Opportunity to make friends |
| | 7 | 6 |

Statistical analysis of the careers of 60 students show that there is a close correlation (0.64) between the numbers of careers in which there were changes and the number of areas for which the courses were helpful. Those with more changes around the time of the courses and afterwards find the courses more helpful (Farnes, 1990).

## Resources and the life course

While lifelines make the concept of interdependent careers explicit, they do not *explain* the interactions between careers, the influence of events such as a course or the links with the wider socioeconomic context. The lifelines show the pattern of activities across careers and through time.

Underlying the changes in activities are resource management decisions of individuals and their families. Scheduling activities and balancing resources make up the resource management strategy of the individual and family. This is similar to Wallman's (1984, ch. 2) concept of 'households as resource systems'; what Brannen and Wilson (1987, p. 11) refer to as 'strategies in the deployment of resources' within households; and what di Gregorio (1987, p. 272) calls 'managing' within different types of domestic 'economic units'.

There is a lack of consensus as to the main types of resources available to individuals and families (see for example, Dower et al, 1981, p. 16; Pearlin, 1982, p. 68; Hultsch and Plemons, 1979, p. 23; Clausen, 1972, p. 463; Main, 1979, p. 22; and Wallman, 1984, p. 21). It might be helpful to use the terms personal *characteristics* and *circumstances*, as major categories for grouping resource types. An individual's characteristics can be considered as personal resources which are drawn upon in adapting to life events and carrying out various activities. Per-

sonal resources include: physique, knowledge, skill, experience, abilities, aptitudes and so on; and another kind of personal resource is health and morale. The individual's circumstances are dependent on two main kinds of resources—material and social. Material resources include: income, savings, household appliances, home, car etc; and one special kind of material or physical resource is time. Social resources consist of social networks made up of members of their family, friends and relatives that can be called upon to help out, and to share activities and problems.

In summary, we can group the resource types as shown in Table 2

**Table 2 Types of resources**

| Type | Resources | Examples |
|---|---|---|
| Characteristics<br>*Who you are* | Personal | Physique, appearance, strength, Physical and mental health<br>Knowledge, skill, experience, abilities, aptitudes, attitudes, qualifications |
| Circumstances<br>*What you have* | Material | Income, savings, home, household, car etc.<br>Time |
| *Who you know* | Social | Family, friends and relatives, social networks |

Put simply, what individuals *do* (that is, their activities) is a function of who they *are* (their personal characteristics), what they *have* (material resources), who they *live with* and *know* (social resources). In turn, what they do also adds to what they have and who they are. The activity of learning requires something of students (for example, their knowledge and experience) and of what they have (for example, time). It adds to who they are (for example, gains in knowledge and skills, and improved health), and who they know (for example, extended social resources). These additions can be used to do new things.

People's characteristics and personal resources are a product of their genetic endowment and life experience. As they act (exercise agency) in particular circumstances (some of which are unacknowledged by them) they draw on their current resources (for example, knowledge) and produce outcomes (some unintentional) which reinforce their characteristics and circumstances and may lead to changes in these.

Personal characteristics and circumstances represent the structure within which an individual acts. This structure is both a resource and a constraint on what can

be done and is reproduced and changed through the individual's action and the actions of others. The rate and extent of change that individuals can make to the various kinds of resources varies, some individuals being able to change their own circumstances as well as those of other people. Over a lifetime, people's characteristics and circumstances change, and these collectively contribute to social and historical change, which in turn affects the characteristics and circumstances of individuals.

In all areas of life participation in any activity contributes to an individual's experience and this becomes a part of their characteristics which is carried forward to subsequent activities and which may influence their opportunities. The linkages between activities or components are mediated through the individual's characteristics, and it is these which affect their options.

The focus on educational careers draws attention to the discrete and sequenced components of a career and makes explicit the way linkages between components operate. The experiences and, in particular, educational qualifications become characteristics of the individual and are carried forward to influence future educational and other opportunities. Because educational qualifications are required for entry to many jobs, education also illustrates how linkages operate across areas of life. Similar linkages exist between the components of other careers and across other areas of life but they are rarely as formalised as in education.

As the circumstances of students in this study changed (for example, the number and ages of their children, or marital separation) and their characteristics developed (such as health, qualifications and experience), their activities also changed. All this occurred through a changing social and historical context: they experienced schooling, started work and got married at different times and under different circumstances. They participated in historical trends; particularly, increased activity in the labour market, fewer children and more single parenthood. Major events such as the recession in the 1980s and rehousing in the 1960s affected people at different stages of their lives, as did the opportunity to participate in OU courses during the mid 1980s.

Various personal resources are required for participation in OU courses, including time. Fortunately for many Community Education students this opportunity comes when their childcare load is lessened through a child being in nursery or primary school. In addition to time, other personal resources are needed: especially, enough confidence to participate; some knowledge and skills; and adequate mental and physical health; but also the social support provided by group members and the leader. Studying the courses is an activity and therefore, like all activities, requires resources and contributes to some degree to well-being and other resources (Farnes, 1988). The resources needed for participation are reasonably clear, as is the contribution in terms of the resource gains

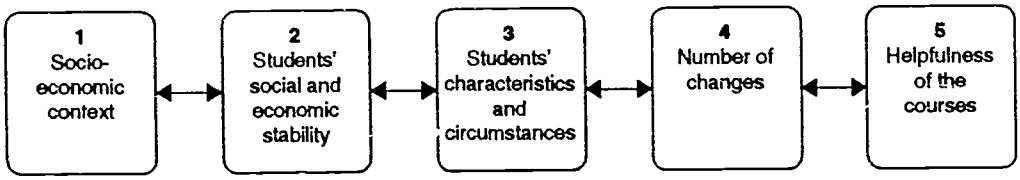
of improved morale, strengthened social networks and increased knowledge and skills.

These gains are the main concern of much educational evaluation and are often a sufficient justification for providing courses. However, the life course approach enables us to go further and examine how the increases in these resources are used for ongoing activities and to help students take up and apply these to various activities.

## A resource based model

The concept of resources also helps explain the chain of linkages between the socioeconomic context, the lives of families and individuals, and students' reactions to the courses. The resource based model in Figure 1 below shows the chain of linkages between the wider socioeconomic context through to the helpfulness of the courses.

**Figure 1 Resource based model showing linkages between socioeconomic context and the helpfulness of the courses.**




The socioeconomic context affects individuals' social and economic position and stability, which in turn is related to their characteristics and circumstances. These include various personal, material and social resources which are allocated to activities. The number of changes in activities is linked to their material and other resources and to the helpfulness of the courses.

The links are two-way: helpfulness of the courses *interacts* with the number of changes; changes in activities involve reallocation of resources as well as contributing to resources. Changes of individuals' characteristics and circumstances interact with their social and economic stability; and individuals' social and economic stability has a dialectical relationship with the wider socioeconomic context. The links also connect different levels of analysis from the societal and institutional to the interpersonal and personal, and in the opposite direction.

The results of this study showed that students who experienced social or economic instabilities (either through separation or with husbands' unemploy-

ment) around the time of the courses are involved with more changes, and the courses are helpful in more of their careers. Those who remain married and whose husbands do not experience unemployment are involved in fewer changes and consequently find these courses less helpful across their various careers (Farnes, 1990).

Social and economic instability is related to low material resources and this affects students' careers through the mechanism whereby common resources are drawn upon for a number of activities. With low income, more frequent substitutions of resources and changes in activities are necessary to cope with changes in demands and resources, and more of the activities are concerned with short-term needs. The OU courses appear to contribute to resources which can be used in connection with a number of activities, and students with many changes find learning contributing to many areas of their lives.

This model focuses on participation in the courses within a limited period; however, the interactions between the components of the model also proceed longitudinally through personal, family and historical time. Also the model can be generalised so that helpfulness of the courses is expanded to include the individual's reactions during their educational or other careers. Thus, a general model can be proposed which links an individual's life course and their reactions to the socioeconomic context.

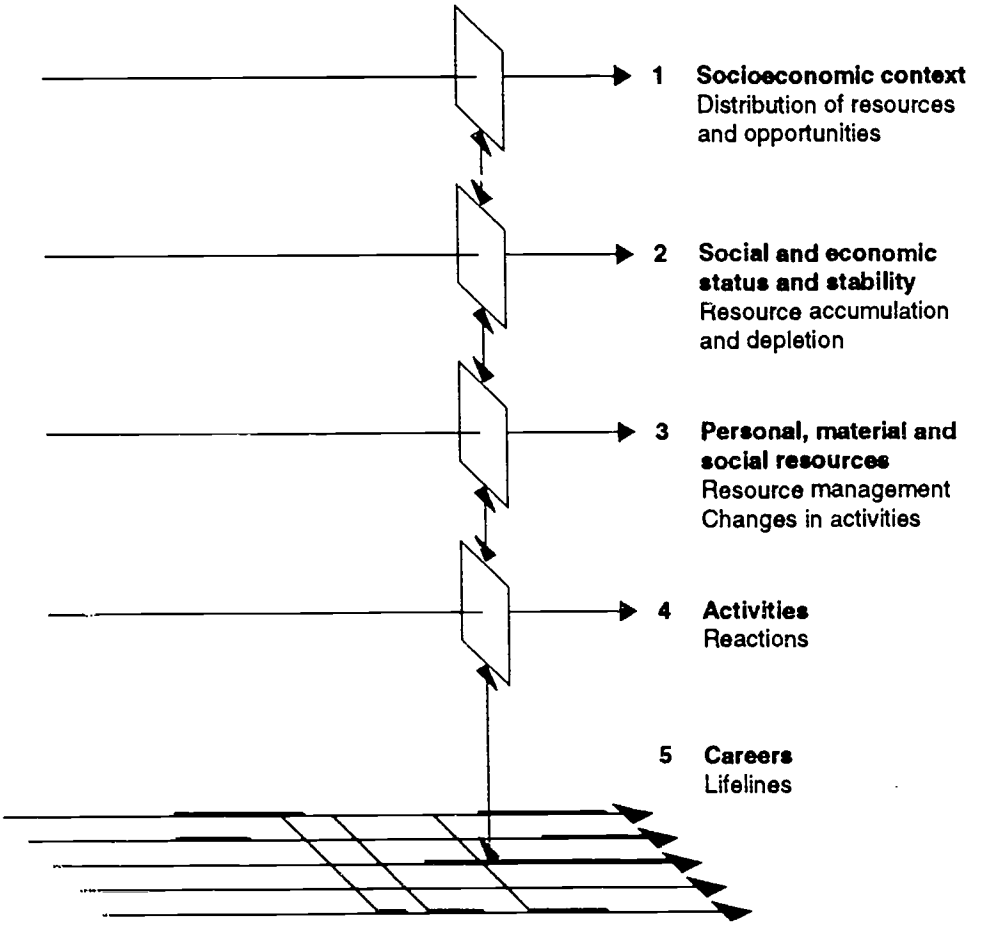
Figure 2 illustrates the general model and shows the linkages between activities in the life course and an individual's reactions and changes which reflect resource management decisions. There is a vertical interaction up and down the chain as well as horizontal processes through time.

Changes in the socioeconomic context (for example, increase in benefit rates, interest rates, divorce legislation) will have a differential affect on stability depending on the resources of individuals and families, their vulnerability and where they are in their life course. Also decisions about moving to a different location, changing jobs, separating, and having children will affect families' socioeconomic status and their resources. Socioeconomic changes may result in unemployment and pressures which lead to separation and alter the socioeconomic status of individuals. Through time, changes will 'squeeze' individuals' and families' resources, and further constrain what activities can be undertaken. At other times changes may release pressure and make it easier to cope (di Gregorio, 1987, p. 283). Resource management strategies have to adapt to changing resources, status and context.

Central and local government, other institutions and other people may attempt to intervene at particular levels; for example, by altering the context through legislation or regulations; distributing resources or providing services; making demands or offering help. These measures may connect with the lives of individuals and affect various points in the chain. How individuals respond or alter

their resource management strategies will depend on the linkages between the changes, their resources and their activities.

**Figure 2 General resource based model showing linkages between careers and socioeconomic context through time.**




Local government might try to alleviate the affects of changes in the wider socioeconomic context by intervening at the level of local institutions and services (SRC, 1983). The provision of OU courses is one service which can add to the personal and social resources of students and may lead to their participation in changes which affect the community and may influence the wider context.

## Conclusions

This study shows how life course analysis can be applied to students' life histories to examine the place and influence of OU Community Education courses in their lives. By using lifelines to analyse their careers, systematic linkages can be identified. In particular, the help provided by the courses is related to where students are in their careers and to the number of changes across their careers. The number of changes depends partly on the students' social and economic stability.

The distinctive characteristic of the life course approach is that it considers situations where individuals, those around them, local institutions and the wider socioeconomic context are *all* interacting and changing through time. A process where all the main elements are in a state of change puts a premium on techniques that enable events to be represented in a way that facilitates inspection. In other words, on techniques that pin down the continual flux of change and make this amenable to analysis. The approach adopted and developed in this study enables these changes to be analysed without losing sight of their complexity and enables a degree of precision to be brought to questions about possible links between events in the same and in different areas of life. The identification of linkages from the lifelines can then be validated through students' comments about their lives and the influence of the courses.

This methodology provides a more holistic view of students' lives than traditional evaluation and adopts an indirect approach through the collection of life histories. Life course analysis shows at what stage in students' various careers they participate; what else is going on in their lives at the time; and how education affects areas of their lives. This enables us to go further than the immediate learning gains and to examine how these are used for ongoing activities; for taking up new activities; and for applying what has been learnt. The analysis shows how changes in their socioeconomic status interact with education, and the resource-based models attempt to explain the links between careers and the socioeconomic context. These methods can be applied to other courses and students (Morgan and Farnes, 1990) and for looking at other careers, such as the impact of separation or unemployment on people's lives. There is also scope for applying this approach to social impact studies (Johnson et al, 1981; Dex, 1984).

However, the theoretical basis of the life course approach is not well developed. Clausen (1972) said 'Perhaps it is unrealistic to think of a theory of the life course. Perhaps we can only look forward to more limited theories relevant to aspects of the life course ...' (p. 512). The resource-based approach to theorising careers presented here suggests that it might be fruitful to combine life course analysis and aspects of historical materialism to develop a theory of personal and historical change (see for example Seve, 1978; Leonard, 1984; Callinicos, 1987). The study of the lives of distance learning students certainly provides a rich source of data because of the continuing interaction between their educational and other careers and the changing socioeconomic context.

Chapter 11

# A method for assessing student use of study notes

**Stephen Relf and Terry Geddes**

## Introduction

INSTRUCTIONAL DESIGN HAS influenced the development of learning materials at Charles Sturt University-Mitchell (CSU-Mitchell) for seven years. This has resulted in the materials for many subjects having a similar structure reflecting current scholarship in learning theory. Given that the process has been operating for seven years, it is worth asking in what ways do students use these materials? Or alternatively, do different learners use the materials in different ways?

One of the paradoxes of educational development is that in order to improve student learning attention must be given to teaching and assessment. Yet to improve teaching and assessment we must look to student learning. The paradox is that learning skills problems are inseparable from the structure and methods of teaching and assessing. Ramsden (1985) reached such a conclusion after reviewing the development of research into student learning. The studies Ramsden reviewed are principally from two research perspectives. One was the phenomenographic perspective of the Gothenberg school (Marton and Säljö, 1976a; 1976b); the other from the psychometric perspective (see Biggs, 1987a). Both perspectives focus on understanding students' own descriptions of their learning which is one part of the paradox Ramsden describes.

Australian studies have investigated patterns of student 'drop-out' rate and how students go about studying (Harper and Kember, 1987; Small, 1986). In a study which correlated learning strategies and dropout rate, Harper and Kember found that students using lower level study skills have a higher attrition rate than those employing higher level skills. The 'learning strategies measure' used was the Approaches to Studying Inventory developed by the Gothenberg school, to examine how students learn and how they experience their courses. Harper and Kember used a discriminant analysis between persisters and non-persisters and the sub-scales of the Approaches to Studying

Inventory and found that 'the variable which most strongly discriminates between persisters and non-persisters...is the surface approach' (1987, p. 2). From this study they speculated that in order to reduce attrition rates, students' approaches to study should be changed from a surface approach through instructional design and textual layout.

Marland and Store (1982) reviewed research on how distance learners processed and reacted with instructional material. They surveyed studies which assessed the use of instructional devices such as: advance organizers; overviews; pretests; objectives; inserted questions; and, finally, typographical considerations. The focus of the study, though, was not on students' approaches to learning, but rather on the 'need to structure materials in a way which will provide the student with greatest access to content' (1982, p. 74). Both Harper and Kember (1987) and Marland and Store (1982) addressed separate aspects of the paradox from a literature review rather than through observation.

Parer's observational study of twelve students at Monash University College Gippsland examined learning approaches and how students used their study materials (Parer, 1988). He assessed both aspects of the paradox: student approaches to learning and the structural aspect of teaching and assessment; he also assessed student use of textual design. To investigate students' approaches to learning, Parer used two instruments. One was the Approaches to Studying Inventory, used by Harper and Kember (1982) and mentioned above; the other was the Biggs's Study Process Questionnaire (SPQ) (Biggs, 1987a). Parer found that each instrument was useful and concluded that, although the Approaches to Studying Inventory provided 'a more useful breakdown of the components involved in learning...both questionnaires appear to be useful in establishing a student profile' (1988, p. 80). Parer concluded that the advantage of the SPQ is that it provides a clear and easily accessible picture of the student as a learner as above average, average or below average on the various approaches to learning. The average measure is a comparison of the individual score against an Australian tertiary student population. It is for such reasons that we used the Biggs SPQ in our study.

Biggs's SPQ proceeds from a theoretical model of cognitive and affective components in the learning process and assumes that the relationship between study processes, personality, motivation and academic performance are the main influences affecting the suitability of student study processes. In other words, there is a 'psycho-logic' of how students perceive their role in particular learning situations. Students who are interested in a particular subject for instance, are likely to try to find out as much as possible (deep approach); students who are not interested in what they are studying apply minimal effort (surface approach); while students who are determined to succeed adopt any strategy that helps them achieve their goal (achieving approach). These three approaches to learning, deep, surface and achieving, were the subject of our study.

Biggs further divides each approach into two distinct components. Students who are motivated, such as in the interested (deep) student scenario just described, will be likely to adopt a study pattern or strategy which suits their motivation. These two components—motivation and strategy—combine to form an approach to learning. Biggs uses these components in the deep and surface approaches to differentiate between aspects of an approach. This division of approaches into deep strategy and deep motivation; and surface strategy and surface motivation is not dissimilar to the deep and surface approaches described by Marton and Säljö (1976a; 1976b). They found that students would adopt a way of processing information according to their reasons for studying.

A student using Biggs's third approach—achieving—emphasises organization as a strategy in a drive to succeed. This drive to succeed is extrinsic to their interest in the subject and so different from what Biggs terms 'intrinsic motivation' (Biggs, 1987a, pp. 9–11).

Parer set out 'to improve distance teaching practices and techniques' as one of the aims of the research (1988, p. 2). He cited the study of Marland and Store (1982) along with those of Morgan, Gibbs and Taylor (1980) and Roe (1981) as addressing questions of student use of the study material provided by institutions.

In order to address both aspects of the paradox, this study uses the SPQ and structured interviewing. The SPQ is used to answer part of the question posed at the beginning of this chapter; that is, do different learners use the study notes in different ways? In addition, we aimed to have about one hundred interviews from which we could find a pattern of study guide use in relation to the study approaches adopted.

Parer's research covered students in two subjects, History and Sociology. The present study included students in 30 distance education units from Business, Social Science and Welfare Studies, Health Administration, and Applied Sciences. The purpose was to ascertain patterns of use of study guides from different subjects according to the students' approaches-to-study profile derived from the SPQ.

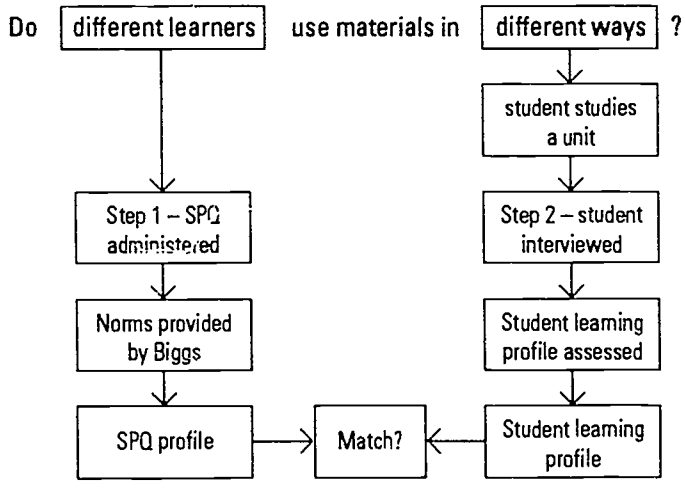
## Method

The question being investigated in this research: do different learners use learning materials in different ways? was resolved into two elements which gave rise to the two key steps in the research process. One step sought to identify 'different learners' and the other to investigate the ways in which these learners used learning materials. Different learners would be classified according to the surface, deep and achieving approaches discussed above.

Each category has motive and strategy elements which are combined into an overall approach to learning. Accepting that learners can usually be classified by using these dimensions has a further advantage in that an instrument standardised on an Australian student population is available to assess a student's approaches-to-study profile across these dimensions. Therefore, the first step in the methodology was to have each participating student in the survey respond to the SPQ. This occurred several weeks after the student had completed work on the topic concerned. Each student's response was assessed and the results converted into deciles using Biggs's (1987b) norms and then into the 'above average', 'average' and 'below average' subscales which give each student's SPQ profile.

The second step was to investigate a student's learning approach to a particular learning situation by interviewing each student using a partially structured interview technique. Each student was encouraged to describe and explain their learning activities in relation to a topic in a semester-long subject. The interviews, which were carried out by the authors, were based on a number of specific questions (see Appendix), however the interviewer was free to ask further unspecified questions to elicit further information and clarification. The interviews were taped and transcribed for analysis. The specific questions were related to strategy, sequencing and motive. These steps are illustrated (1 and 2) in Figure 1.

**Figure 1 Steps taken in determining whether different learners use materials in different ways**




Unlike the SPQ profile, no standardised norms exist against which to assess the data derived from the interviews. For the initial analysis of the data we assessed the learning approach of each student independently of their SPQ profile.

Composite pictures of deep, surface and achieving approaches were drawn from Biggs (1987a, b), Parer (1988) and Schmeck (Biggs, 1987a). Each researcher independently examined each transcript to derive an approach-to-study profile for the corresponding student. When this process was completed these profiles were compared and discrepancies resolved to arrive at an agreed profile for each student.

The SPQ and interview profiles for each student were compared to see if they matched. If so, we were confident that the approach to study expected of a student based on the student's SPQ profile and interview was the approach that the student used to carry out the study of the materials in question. Sixty percent of the students' profiles matched and these were grouped according to their SPQ profiles, that is surface predominant, surface exclusive, deep predominant and so on. Those students whose profiles did not match were set aside. The matching procedure between students' SPQ and interview profiles is an important aspect of this research project. In this way it significantly extends the work of Parer (1988) who used both the SPQ and interviews but did not report a matching analysis.

When the profile groups were established the interview data were re-analysed to draw out the common elements in these students' uses of learning materials.

## Procedure

During the one-week, residential school periods in both semesters of 1991, 962 students in 30 units were invited to spend about two hours to complete the SPQ and then be interviewed. 119 students agreed to take part in the project. After the interview the study profile of the student was explained to them and they were counselled about its indications of their strengths and weaknesses. In all, 114 interviews were able to be used.

The criteria for choosing units were twofold. Firstly, the units had to be the equivalent of second year units so that we were involving students who were experienced distance education students. Most students interviewed had been studying by distance education for at least two years and some for as many as five years. The second criterion was that the instructional features of the units should be similar and fairly structured. Hence, the units' study guides were divided into discrete topics which had all or most of the following instructional devices:

- introduction/advance organizer
- objectives
- statement of required and/or optional readings

- commentary or overview
- summary
- questions
- list of key concepts.

Each device had its own intrinsic pedagogical merits and none was sufficient of itself. The study guides incorporated these devices to provide motivation, orientation, a clear list of study tasks, familiarization of scope, broad structural materials and revision exercises.

## Conclusion

The methodology described, successfully met one overall objective of the project which was to extend Parer's (1988) research by developing a methodology for comparing SPQ profiles with students' accounts of their actual studies. We feel that the methodology is defensible because it uses an instrument standardised to an Australian population and it also adheres to an essential element of the phenomenographical approach, the cross-checking of results obtained by different researchers.

Ultimately the effectiveness of this methodology will depend in part on the results obtained. At the time of writing, 40% of the data has been analysed and yielded a 60% match between SPQ and interview profiles.

**Acknowledgements**
This project was sponsored by *Mitchellsearch*, CSU-Mitchell. We acknowledge the cooperation of the academic staff at CSU-Mitchell for the use of their units for this project. We wish to thank Julie Tutton, the office coordinator of the project, and the staff of the Open Learning Institute at CSU–Mitchell for their cooperation.

## Appendix—Interview schedule

1 Have you studied this topic before? To what extent?

2 What was the sequence of learning tasks you undertook to deal with this topic? Study Guide suggests a number of things—introduction, overview, readings, summary etc—What did you do? In what order?

3 Which sections of the Study Guide did you spend most/least time on? Why?

4 What aspects of the Study Guide helped you to understand the topic?

5 What aspects of the Study Guide inhibited your learning?

6 Can you suggest any additions to the Study Guide which would have helped you?

7 What is the best way to learn a subject like this?

8 If you make notes when you study, what and how much do you write? Why? Any examples...

9 Once you have read the Study Guide through when, and how often do you come back to it?

10 When you come back to it, what do you do?

11 What use do you make of the suggested readings in the Study Guide?

12 Can you think of any better ways to get you to explore a topic further?

13 How did your study periods here compare to your study periods at home? Does this have any implications on the construction of the Study Guide?

14 Why have you undertaken this course of study? And why at Mitchell?

15 What sort of results have you got so far?

Chapter 12

# Research in teleconferencing: proximics and student participation

**Mohammed Razha Rashid, Omar Majid, Abdul Rahim Ibrahim and Mohammed Ridzuan Nordin**

## Introduction

THE CENTRE FOR Off-Campus Studies of the Universiti Sains Malaysia (USM) has offered degree programs through distance education since its inception in 1969. The Centre offers a six year degree program through a combination of printed self-instructional modules; an annual on-campus intensive course; a compulsory, one-year, on-campus residency prior to graduation; and, recently, audio-graphic teleconferencing.

The teleconferencing system, introduced in mid-1988, is part of an overall long-term strategy to upgrade the Centre into a full distance education institution by 1994. The annual intensive course and full-time residency will be phased out as and when a comprehensive countrywide network of teleconferencing facilities is established. However, teleconferencing is still to remain supplementary to the self-instructional printed modules which currently form the mainstay of the Centre's courses. In fact, teleconferencing at the Centre is purposely designed for use as real-time tutorials, the emphasis being on students' participation in discussions, especially with their course peers.

As in any face-to-face tutorial session, the main task of the person conducting a teletutorial session is to draw students' participation into an interactive discussion. The task becomes more challenging in the 'tele' mode, where the triadic network of student-teacher-student is deprived of the usual ingredients of a tutorial class—visual contact, an encapsulated social/spatial environment for interactive dialogue, and the presence of an arbitrator or tutor.

A study is currently being undertaken on aspects of teletutorials at USM, with particular emphasis on the identification of factors affecting students' participation in the interactive dialogue. As part of this, sixty-four, one-hour, teletutorial sessions of courses from various levels and disciplines offered in the degree program at the Centre were studied by the participant-observation method. This paper highlights some of the significant findings already made about students' participation in real-time, teletutorial sessions.

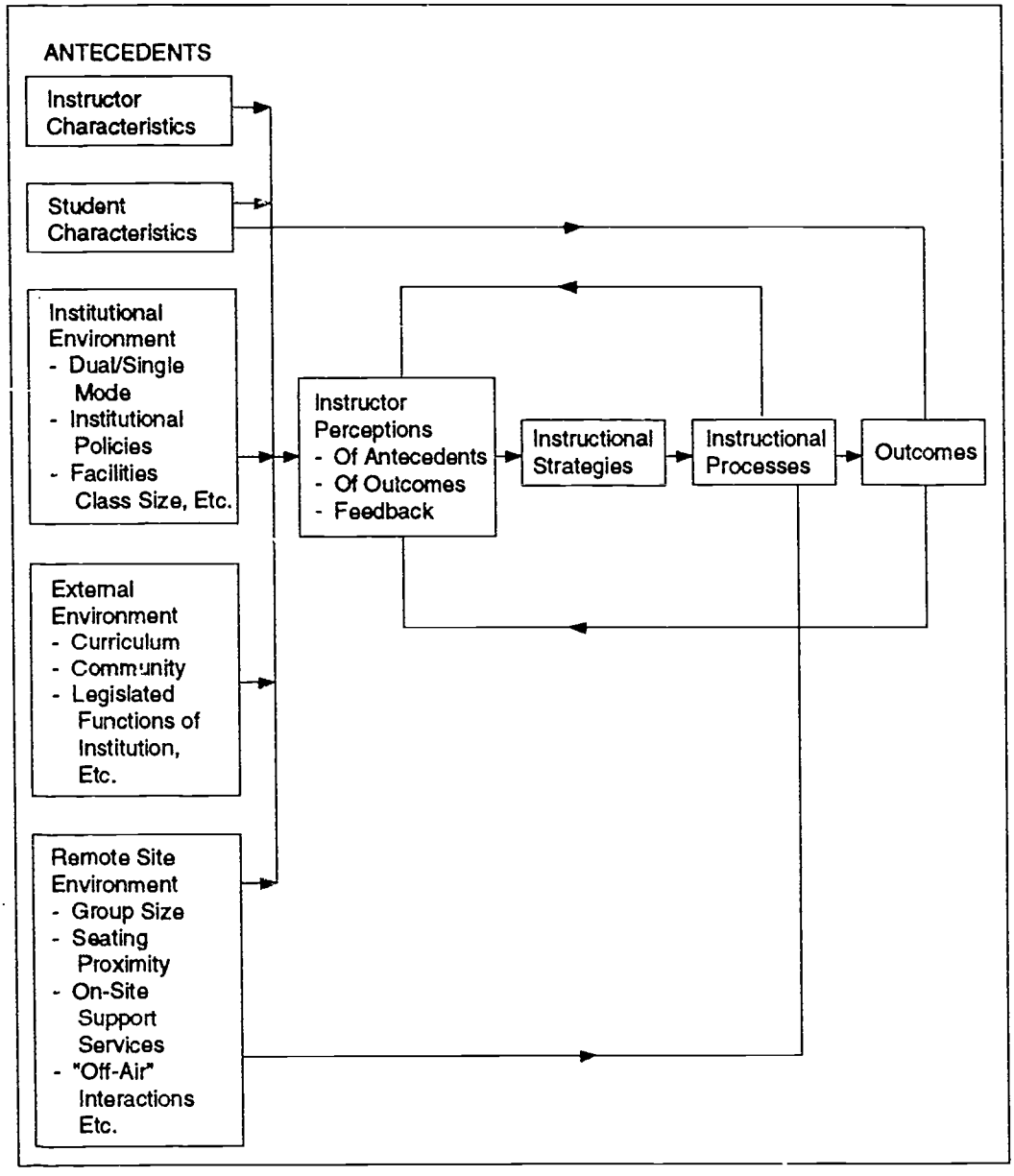
## Methodology and conceptual framework

Several research studies in the last five years or so have focused on both the correlational and explanatory aspects of the interlocking 'antecedents' (see below) affecting teleconferencing classroom environments. An instructor conducting a tutorial from a host institution to a multi-site teleconference class is hampered by numerous and complex antecedents that could have been otherwise avoided (or at least controlled) in a conventional classroom situation. Class interactions are influenced not only by traditional factors, such as instructor and student characteristics, but also by those factors associated with the remote site environment of a teleconferencing classroom. A model (Figure 1) developed by Crocker (1985) and re-adapted by Kirby and Boak (1987, p. 33), indicates all the possible antecedents relevant in analysing teleconferencing classroom activities and students at different sites.

SATA (System for Audio-Teleconferencing Analysis) was developed by Kirby and Boak (1987) to analyse interactions between remote classes and a host institution. The system, based on quantitative analysis and observational research of verbal interaction in teleconferencing (Stallings and Kaskowitz, 1974) defines interaction in teleconferencing sessions as verbal communication between the host institution and individual students located at various teleconferencing classes. In particular the 'interaction' data are interactional sentences which denote *who* initiated speech, *to whom* they spoke, *what* was the nature of the speech and *the context* in which the speech occurred. The source of the data is a set of recordings of the sampled sessions.

While SATA presents a potentially viable model for the study of interaction, it lacks a methodological and analytical framework for understanding the social dynamics of interaction, particularly in relation to the antecedents of a remote site environment. Interaction is, after all, a product of a multiplicity of factors or imperatives that are, in turn, influenced by the conditions and social elements of a particular class environment. Consequently, it is perhaps more relevant to identify and analyse these imperatives and their social dynamic interconnection in conditions and elements which directly affect participation.
Based on the Crocker model (Figure 1), this study focuses on the effect on student participation in teletutorial sessions of factors identified in the SATA study as 'remote site antecedent'. The actual parameters used in the study are as follows. Firstly, all teleconferencing sessions at the Centre are to be non-pedantic; that is, host-class contact is not to be a straightforward lecture-type information delivery. Rather, the strategy is interactive, with emphasis on participation in topical discussions (seminars); thus making all teleconferencing in courses at USM into teletutorial sessions. Thus, factors such as instructors' perceptions and strategies, and instructional processes (Figure 1) are treated as controllable in that the instructors are directed to facilitate seminar-type sessions with predistributed agenda.

**Figure 1 A model of the audio-teleconferencing and teaching process.**




(Adapted from Crocker, 1985) [cf Kirby and Boak, 1987]

Secondly, antecedents of the external environment (curriculum, community, legislated function of environment, etc) as well as institutional environment (dual or single mode, institutional policies, facilities, etc) are predetermined factors which have little significance for actual classroom-level interaction. These antecedents, just as in the case of the instructional strategy, are factors that *can* be controlled insofar as the host institution has the ability to control

them. Thirdly, the factors that are immediately relevant insofar as tutorial participation is concerned, are those that affect the immediate surroundings of the classroom situation, namely the 'remote-site antecedents' related to class size, seating proximity, on-site support services and off-air interaction (Crocker, 1985; Kirby and Boak, 1987).

In this study, the interconnections of antecedents of a remote-site environment are studied in order to identify the appropriate combination that would enhance or motivate students to participate actively in discussions. As a single set of variables, we refer to the combination of all the antecedents as 'proximics'.

Proximics, a concept familiar to some social anthropologists dealing with small group interaction at close quarters—and to architects concerned with interior design—refers to patterns of spatial location of persons and objects in small groups and in a spatially encapsulated social environments. Implicit in the notion are socially established rules of propriety or, in lay terms, etiquette, that guide social positioning in group formation. In studies of group dynamics in social anthropology, there are different stages and types of social formation ranging from gang to clique to action set before a cohesive and stable social group emerges. Each level and type of group formation has its own proximics; that is, the rules of propriety in interaction that emerge out of the group serve towards some objective. In an 'action-set'—which refers to an ephemeral social formation consisting of a selective membership geared towards achieving a specific objective—the proximics evolve from the interconnection of the social characteristics of the set and the objective for which the group was formed. These characteristics are: group size, in-group linguistic codes, availability of space, relevant paraphernalia, and, most importantly, the 'rules of the game'. These rules are the normative structure of relations—of past experiences of structurally similar action-sets—which govern the bounds of priority in participation towards the set objective.

Ritual constitutes a form of action-set formation in which proximics is of prime importance. The spatial arrangement of participants, which regulates the sequence of interactive movements of selected verbal gestures, and the placement of ritual objects and participants, are elements that constitute a proximic essential for meaningful, and therefore successful, execution of a ritual.

A teletutorial is analogous to a ritual action-set, in the way both contain structurally similar imperatives. A similar conceptual framework to that used in analysing a ritual occasion can be applied to study a teletutorial. In both forms of small-group formation, the factor of proximics has consequences for the outcome of the action-set. Just as with a ritual occasion, a teletutorial session takes form for specific purposes. In both social situations, the imperatives that make up the proximics are structurally somewhat similar, and in both, the primary objective is meaningful participation.

Thus, essentially, the main concern of this study is exploratory: to identify the proximics in teletutorial sessions that is most conducive to student participation. Unlike a ritual occasion which operates on proximics established by tradition; in a teletutorial session, the proximics evolve according to the constraints and antecedents of a particular remote tutorial class.

The objective of this study is to obtain an insight into the process and pattern proximics of an action-set that manifests itself in a teletutorial classroom. Perhaps, in the long run, it would be possible to establish and introduce a 'tradition' in the proximics of teleconferencing sessions, a social-structural milieu that would be conducive to successful participation. The immediate aims, however, are to generate and identify significant imperatives of participation for:

- future physical design of a teletutorial class—arrangement of chairs and desks, positioning of the service equipment, lighting, acoustics, and so on
- development of schemes for interaction, or type of interactive dialogue (discussion) for different levels of courses and for different types of interconnections—within-class, class-host and between-class dialogue.

The study was conducted by the authors at four different locations, and was entirely based on the participant-observation method. The researchers sat through all teletutorial sessions—twenty-four courses in four different centres—over two different time periods, giving a total of 185 hours of teletutorial (Table 1).

**Table 1 Hours of observation of courses at a centre**

| | | Level | | | | |
|---|---|---|---|---|---|---|
| | Course | 1 | 2 | 3 | 4 | 5 |
| $T_1$ Audio only | Sciences | 16 | 8 | 7 | 2 | 2 |
| | Humanities | 20 | 6 | 7 | 4 | 5 |
| | Social sciences | 20 | 14 | 6 | 8 | 2 |
| | Sub-total ($T_1$) | 56 | 28 | 20 | 14 | 9 |
| $T_2$ Audio-graphics | Sciences | 4 | 2 | 3 | 4 | 5 |
| | Humanities | 12 | 11 | 8 | 5 | 2 |
| | Social sciences | 14 | 4 | 6 | 4 | 1 |
| | Sub-total ($T_2$) | 30 | 17 | 17 | 13 | 8 |
| Total | $T_1+T_2$ | 86 | 45 | 37 | 27 | 17 |
| | | Total hours observed = 185 | | | | |

In the first observation period the classes were only conducted through audio-teleconferencing. In the second period, audio-graphic teleconferencing was introduced. In two of the study centres chairs and tables were left mobile to allow students to move them about, but in the remaining centres the tables were prearranged as in a face-to-face classroom.

Notes were kept on a standard form, principally for recording observations at three-minute intervals of two sets of factors:

1 Pre-class behaviour patterns as follows:
   - students seating arrangement
   - preferences in sitting position according to gender and ethnic group
   - presence of dominant students in discussions
   - general pre-class behaviour patterns; for example, grouping and cliques
2 In-class behaviour patterns as follows:
   - behaviour that relates positively towards participation, such as number and sequence of statements that originate from host institution or other remote classes, note-taking, perceptive questioning
   - behaviour patterns that denote non-participation, such as cliquing for private discussions, joking, private reading, conversation and, in the extreme case, sleeping.

Based on these two sets of factors, the researchers , at the end of each class, evaluate and suggest a score (on the scale of 0 to 1) for the level of participation for each class. The score is based on the presence of a combination of negativ and positive correlates of participation.

A second set of scores is given by an appointed research assistant based on the following calculation where subscript A denotes activities that are regarded as participatory, subscript B denotes activities that are deemed to be non-participatory, and P is the overall class participation level.

Thus, the total time spent on participatory activities by the students is designated $M_A$ while total time spent on non-participatory activities is designated $M_B$. The total time spent by all students at a teleconference session on both kinds of activities is designated by $M_T$.

$$\text{Consequently, } M_T = M_A + M_B.$$

The level of participation (P) is defined as the ratio of the total time spent on participatory activities by the students during the session to the total time of the session.

$$\text{Thus } P = \frac{M_A}{M_T}$$

Thus P will have a value ranging from 0 to 1. If P has the value 0 it indicates that no activities which support the learning process have been observed. Conversely, if P has the value 1, it indicates that the teletutorial session contained the maximum possible level of participation on the subject matter, and was therefore successful.

Admittedly, the value of P is determined arbitrarily (ranging from 0 to 1) but it is merely used for purpose of a general indication of types of participation in relation to the overall class proximic.

## Preliminary findings

In analysing factors of proximics, it is the general opinion of the observers that there are different types (A, B, C) of group formation in teletutorial classrooms based on the following considerations:

- mode of signal transmission: audio or audio graphic
- class size
- subjects taken: Science, Humanities or Social Sciences

Like in the observer's arbitrary determination of P at the research site, the types of proximics are formulated on the basis of the observers' diagrams of actual distributions of students in the classes they observed. Decisions about the types of proximics are made on the basis of discussion among the researchers after the observations are completed. In Table 2 below, types A, B and C are further subdivided as indicated by the subscripts 1, 2, 3, and 4. Characteristics of each of these types are outlined before the table.

### Description of types of proximics

Type $A_1$—Students do not interact before the session begins; they locate themselves in places nearest to the speaker and microphone in a complete circle; there is no clear pairing or peer interaction. Students prefer to talk to the host instructor rather than to each other. There is no gender or ethnic separation.

Type $A_2$—Students tend to interact while choosing a random chair to sit on. There is a tendency to maintain arms-length distance from each other while

choosing a seat. There is also a tendency for small group formation and sharing of notes. Some dominant characters are evident who constantly volunteer to speak for the others. There is no clear gender or ethnic grouping.

Type $A_3$—Similar to $A_2$, but with clear separation of gender and ethnic grouping. In particular, female students tend to group together across ethnic line but male students tend to group according to ethnic background.

Type $A_4$—Similar to $A_2$, with clear separation of gender and ethnicity, but subgrouping has a dominant figure who dominates discussions usually on behalf of the group.

Type $B_1$—Everyone sitting in parallel rows facing the graphic monitor. Bunching in the area directly in front of the monitor. No clear pattern of ethnic or gender separation.

Type $C_1$—No particular pattern to the seating arrangement, but a clear grouping of female students and/or students with the same ethnic background. Most students tend to occupy the chairs furthest from the microphone or speakers as they enter the class. Presence of a 'class monitor' who initiates questions or volunteers answers.

Type $C_2$—Students seated in a number of concentric 'horse-shoes' around a microphone with the open-end of the horse-shoe adjacent to the monitor and/or speakers.

**Table 2 Distribution of types of proximics**

| | Subjects | Sciences | | Humanities | | Social Sciences | |
|---|---|---|---|---|---|---|---|
| Mode | Class size / Centre type* | <15 | >15 | <15 | >15 | <15 | >15 |
| Audio | F | $A_1$ | $A_3$ | $A_1$ | $C_1$ | $A_1$ | $C_1$ |
| | NF | $A_2$ | $A_4$ | $A_2$ | $C_2$ | $A_3$ | $C_1$ |
| Audio-graphic | F | $B_1$ | $A_3$ | $A_3$ | $A_3$ | $B_1$ | $C_2$ |
| | NF | $A_2$ | $A_3$ | $A_3$ | $A_3$ | $B_1$ | $C_1$ |

* F denotes centres where the arrangement of chairs and tables is not fixed (2 speakers, 2 microphones)
NF denotes centres where only the chairs are not in a fixed position (2 speakers, 2 microphones)

From the total number of classes observed, a preliminary tally is made to determine how many classes display a predominant type of proximics. In addition, the average P values for these classes are tallied to the proximic types to indicate which of the types is associated with greater or lesser levels of student participation. The results of all this are shown in Table 3, but please note that the numbers in the table do not equal the total number of classes observed.

**Table 3 Distribution of numbers of classes corresponding to types of proximics.**

| Proximics type | Number of classes manifesting type | Mean* P |
|---|---|---|
| $A_1$ | 14 | 0.75 |
| $A_2$ | 15 | 0.25 |
| $A_3$ | 20 | 0.72 |
| $A_4$ | 8 | 0.62 |
| $B_1$ | 16 | 0.42 |
| $C_1$ | 21 | 0.78 |
| $C_2$ | 15 | |

* Mean obtained from 5 randomly selected courses/hours of each type

## Conclusion

This paper presents a study of the relationship between types of classroom interaction and participation in teletutorial sessions in courses offered at the USM's Centre for Off-Campus Studies. The study involved a rudimentary correlation between types of proximics and participation levels for students interacting with their host institution and their peers.

Initial findings indicate a clear connection between type of classroom proximics and students' participation levels in communicative dialogue in teletutorial sessions. In situations where the proximics are pre-set, such as in a classroom where chairs and tables are placed in rows opposite the speaker, the proximics tends to promote formation of subgroups of ethnic-gender similarities engaging in private in-group discussion.

The significant sociological consideration in such formation of proximics is the tendency of 'stragglers' of the sub-groups to exert their presence by dominating dialogue while the sub-groups continuously engage in in-group conversation.

Significantly, in situations where there is no pre-set arrangement of chairs and tables, so that students are allowed a free range of movement and position, the participation level is enhanced. The evolution of seating arrangements towards a horse-shoe formation, without ethnic-gender clustering, indicates a tendency towards a higher participation level.

Although the study's primary aim was to explore the relationship between seating arrangement and participation, the outcome gave additional insight into aspects of research as well as planning of teleconferencing as a communication medium in distance education. However, on the basis of this rudimentary research into teleconferencing classroom activities, it is certain that aspects of students' seating arrangement, and the additional factor of gender and ethnicity, affects students' propensity to participate. Inquiry into the dynamics of these factors as it affects participation will be pursued in greater detail in the future.

At present, much of the research on audio teleconferencing has been from the social psychologist's perspective and hence has been concerned with aspects of relative efficacy of different media and their potential to substitute for face-to-face meetings. Very few researchers have investigated the instructional processes in a teleconferencing session, save the one proposed through SATA. Yet it is apparent, as this paper stands, that an understanding of the elements that govern students' behaviour in teleconferencing, and of the dynamic interconnection of these elements in favourable or optimum (economically) utilisation of teleconferencing for instructional purposes, is most urgent. This paper offers a methodology for research, although the arithmetic is quite rudimentary. Nevertheless, research and analysis is still in progress to develop insight, if not through sophisticated empiricism of correlational analysis, at least through application of relevant conceptual frameworks from other disciplines of the social sciences, specifically into methods and procedures of evaluating and improving effectiveness of teleconferencing as an instructional tool for distance education.

## Acknowledgement

This research is funded by USM, R and D Grant no. 123-3415-1401.

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Chapter 13

# Student attendance and costs of on-campus commitments for distance education courses

**Eve Cuskelly and John Dekkers**

WITHIN AUSTRALIA, A considerable percentage of distance education courses offered by distance education providers have either a compulsory or an optional requirement for on-campus attendance. A recent study by Cameron et al (1991) of on-campus activities offered by a number of tertiary distance education providers has shown that such activities vary considerably and can include residential schools, summer schools, vacation schools, weekend schools and weekend workshops. Residential, summer and vacation schools are generally held at the middle or end of a semester and enable students to fulfil the on-campus requirements for all that semester's subjects at one time. The on-campus attendance for each subject can be of one to five days duration. Weekend schools and workshops tend to be held during the semester on a regular basis and consequently students may attend a number of these depending on the needs and demands of their course and subject.

For a number of courses, particularly in the sciences, on-campus activities are compulsory because of the necessity to use complex equipment or to complete training activities which can only be done on-campus. There is also a considerable incidence of compulsory on-campus activities for purposes of professional recognition of the course. However, as found by Cameron et al (1991), there is also a considerable incidence of residential schools being held to make good the shortcomings of instructional packages provided to students.

It has been long recognised that the on-campus activity requirement for distance education raises access and equity issues. Travel to and from residential schools imposes a considerable burden on students both in monetary terms and in time, and is kr own to prevent a number of students from enrolling in courses which have such requirements. Results of surveys reported by McIntosh (1975) indicated that 25% of persons who were eligible to enrol in United Kingdom Open University programs, but who did not, listed attendance at compulsory summer school as a reason for not enrolling. Further, approximately 20% of students subsequently surveyed indicated that the requirement for summer school attendance was a factor in their choice of subjects within their program.

This paper, based on unpublished data from the Cameron et al (1991) study, focuses on the costs and levels of support to male and female students attending compulsory on-campus activities as a component of their distance education studies.

## Description of study

Data for the study is from students involved in courses with compulsory on-campus components. The survey instrument used for data collection was administered to students enrolled at seven of the eight National Distance Education Centres: Charles Sturt University (CSU); Monash University College Gippsland (MUCG); Murdoch University (MU); University of Central Queensland (UCQ); University of New England (UNE); University of South Australia (USA); University of Southern Queensland (USQ).

The survey instrument requested information about student attitudes to, and perceptions of, on-campus activities, and about the costs and levels of support to attend those activities. The questionnaire was administered by mail during 1989 to 3905 students who were undertaking courses with a compulsory on-campus component in 1988–1989. The number of responses received was 2078 (53%).

The student responses received by institution, by discipline area and by gender are presented in Figures 1 to 3 below.

**Figure 1 Survey Responses by Institution**

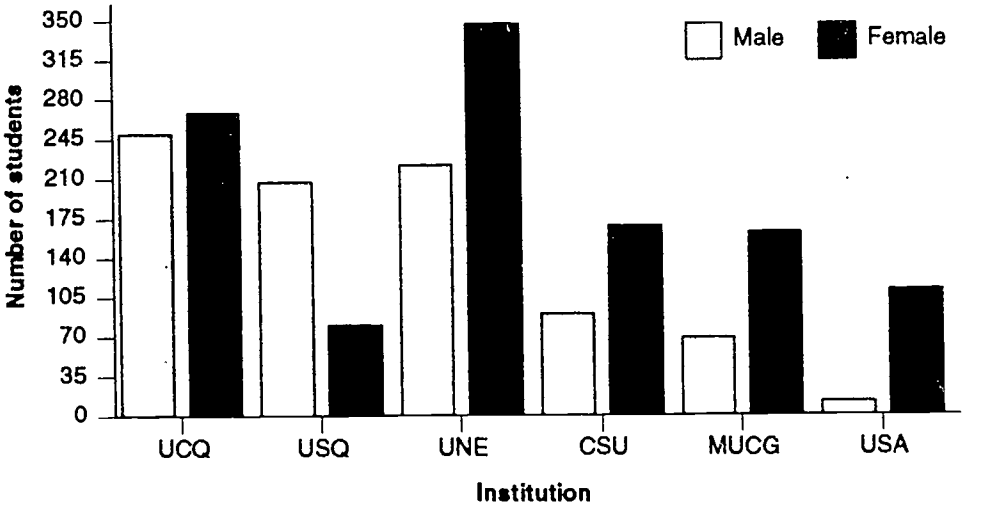


**Figure 2 Responses by Discipline: Male**

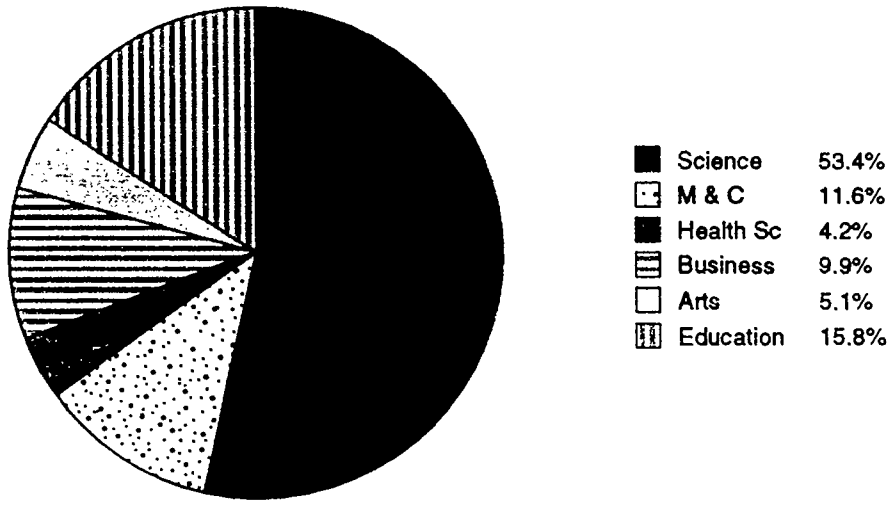
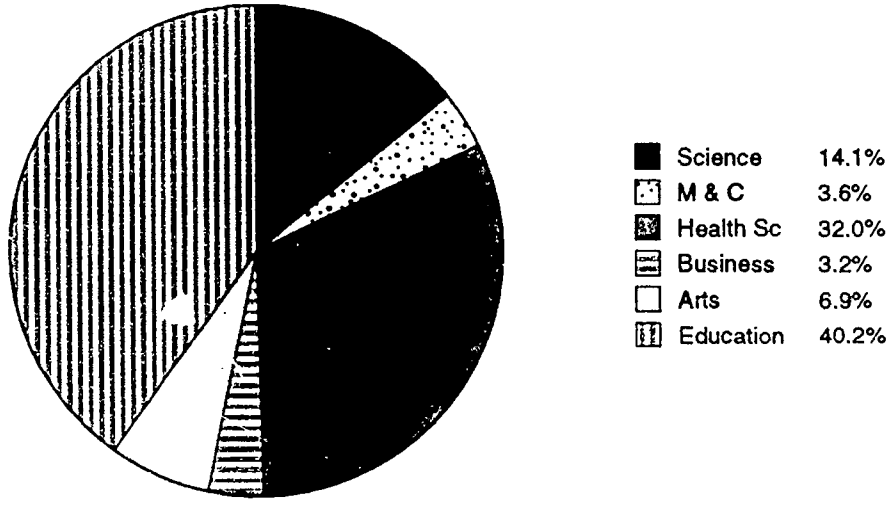



**Figure 3 Responses by Discipline: Female**




Data from the questionnaires was analysed using the *Statistical Program for Social Sciences* (Release 3.1, SPSS Inc. 1988, SPSS User's Guide), and *Minitab* (Release 6.1.1 Standard version, Minitab Inc. 1987).

Initially, frequency distributions were determined for all item responses; their relative percentages, means and ranges were then determined where appropriate. Chi-square analysis was also performed where statistically appropriate.

## Results

### Level of on-campus attendance

Table 1 presents frequencies (f) and means of responses for the number of journeys to on-campus activities, by discipline and institution. The responses for questions relating to 1988 and 1989 have been combined in this table. It should be noted that some sample sizes (ie. the number of students in a particular discipline at a given institution) are relatively small and thus do not enable valid comparisons to be made in a number of instances.

**Table 1 Mean number of journeys to on-campus activities 1988–1989**

| | Institution | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Discipline | UCQ | USQ | UNE | CSU | MUCG | USA | MU | All |
| Science | | | | | | | | |
| f | 302 | 273 | 36 | 139 | 53 | – | 110 | 913 |
| mean | 2.0 | 1.6 | 1.9 | 2.5 | 2.5 | – | 3.4 | 2.8 |
| Maths & Computing | | | | | | | | |
| f | 19 | 32 | 8 | 18 | – | – | 3 | 80 |
| mean | 1.2 | 1.5 | 2.8 | 2.3 | – | – | 4.0 | 1.8 |
| Health Science | | | | | | | | |
| f | 297 | 3 | 2 | 102 | 84 | 73 | – | 561 |
| mean | 1.8 | 1.3 | 2.0 | 1.5 | 3.2 | 2.1 | – | 2.0 |
| Business | | | | | | | | |
| f | 1 | 7 | 111 | 38 | 25 | 5 | – | 187 |
| mean | 2.0 | 2.1 | 2.2 | 1.8 | 3.5 | 1.2 | – | 2.3 |
| Arts | | | | | | | | |
| f | – | 41 | 98 | 8 | 6 | 2 | – | 342 |
| mean | – | 5.4 | 2.0 | 2.1 | 4.3 | 5.5 | – | 2.1 |
| Education | | | | | | | | |
| f | – | 31 | 630 | 58 | 148 | 46 | 4 | 917 |
| mean | – | 2.1 | 1.9 | 1.6 | 7.3 | 2.2 | 2.0 | 2.0 |
| Total | | | | | | | | |
| f | 619 | 387 | 885 | 363 | 316 | 126 | 117 | 3000 |
| mean | 1.9 | 2.0 | 2.0 | 2.0 | 5.0 | 2.2 | 3.4 | 2.3 |

It can be seen that there is a wide variation in the level of on-campus attendance within and between institutions. For example, at MUCG, education students

attended an average of 7 times per year compared with science students at the same institution who on average attended 2.5 times per year. Also, arts students at USQ attended over 5 times per year compared with 2 times a year for CSU. These differences tend to reflect the difference between vacation/residential schools (3–8 days) and weekend schools (1–2 days).

The variation in practices between institutions and disciplines is also apparent from the number of days spent by students at on-campus activities. Table 2 presents frequencies (f) and both means and ranges of responses for the number of days spent at on-campus activities.

**Table 2 Number of days spent at on-campus activities 1988–1989**

| | Institution | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Discipline | UCQ | USQ | UNE | CSU | MUCG | USA | MU | All |
| Science | | | | | | | | |
| f | 298 | 267 | 36 | 140 | 52 | – | 109 | 902 |
| mean | 12.5 | 4.9 | 10.4 | 12.9 | 9.9 | – | 7.0 | 9.2 |
| range | 1–32 | 1–10 | 3–27 | 2–35 | 1–14 | – | 1–35 | 1–35 |
| Maths & Computing | | | | | | | | |
| f | 17 | 34 | 8 | 18 | – | – | 3 | 80 |
| mean | 5.1 | 4.1 | 7.0 | 9.0 | – | – | 5.7 | 5.8 |
| range | 1–14 | 1–6 | 4–12 | 5–13 | – | – | 1–9 | 1–14 |
| Health Science | | | | | | | | |
| f | 286 | 3 | 2 | 103 | 82 | 75 | – | 551 |
| mean | 6.8 | 6.7 | 5.5 | 7.5 | 4.0 | 4.6 | – | 5.2 |
| range | 1–99 | 5–10 | 4–7 | 2–17 | 1–9 | 1–7 | – | 1–99 |
| Business | | | | | | | | |
| f | 1 | 7 | 113 | 36 | 25 | 5 | – | 187 |
| mean | 26.0 | 5.1 | 7.5 | 6.9 | 9.7 | 2.4 | – | 7.9 |
| range | – | 3–8 | 3–28 | 3–20 | 6–16 | 1–7 | – | 1–28 |
| Arts | | | | | | | | |
| f | – | 42 | 93 | 8 | 6 | 2 | – | 151 |
| mean | – | 4.0 | 8.6 | 4.0 | 7.3 | 5.0 | – | 7.0 |
| range | – | 3–9 | 4–20 | 2–8 | 4–16 | 5 | – | 2–20 |
| Education | | | | | | | | |
| f | – | 30 | 627 | 58 | 147 | 47 | 4 | 913 |
| mean | – | 5.4 | 8.1 | 5.7 | 15.3 | 3.8 | 4.8 | 8.9 |
| range | – | 2–10 | 1–24 | 2–21 | 2–89 | 1–14 | 2–7 | 1–89 |
| Total | | | | | | | | |
| f | 602 | 383 | 879 | 363 | 312 | 129 | 116 | 2784 |
| mean | 9.6 | 4.8 | 8.2 | 9.2 | 10.8 | 4.2 | 6.9 | 8.0 |
| range | 1–99 | 1–10 | 1–27 | 2–35 | 1–89 | 1–14 | 1–35 | 1–99 |

Here again there are variations across institutions and disciplines. For example, the attendances for science with the exception of USQ are very similar, the average of science attendance being 5 days. However, for education, MUCG students attend for an average of more than 15 days per year whereas students at MU attend for less than 4 days per year.

## Travel

Table 3 and Figure 4 below indicate respectively the forms of transport used by students when attending on-campus commitments, and the cost of this travel.

**Table 3 Form of travel used to and from on-campus activities**

| Institution | | Mode of transport: Car alone | | Car shared | | Bus | | Train | | Air | | Motorbike | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | M | F | M | F | M | F | M | F | M | F | M | F |
| UCQ | f | 127 | 161 | – | – | 57 | 87 | 17 | 29 | 37 | 42 | 6 | – |
| | % | 51.6 | 61.0 | – | – | 23.2 | 33.0 | 6.9 | 11.0 | 15.0 | 15.9 | 2.3 | – |
| USQ | f | 125 | 40 | 30 | 19 | 37 | 20 | 6 | 2 | 26 | 3 | 2 | – |
| | % | 61.3 | 51.9 | 14.7 | 24.7 | 18.1 | 26.0 | 2.9 | 2.6 | 12.7 | 3.9 | 1.0 | – |
| UNE | f | 109 | 128 | 54 | 112 | 37 | 89 | 17 | 45 | 30 | 61 | 8 | 1 |
| | % | 48.9 | 36.8 | 24.7 | 32.2 | 16.9 | 25.5 | 7.8 | 13.0 | 13.7 | 17.7 | 3.7 | 0.3 |
| CSU | f | 54 | 88 | 25 | 45 | 11 | 16 | 5 | 17 | 9 | 18 | 4 | 2 |
| | % | 61.4 | 53.3 | 28.4 | 27.3 | 12.5 | 9.7 | 5.7 | 10.3 | 10.2 | 10.9 | 4.5 | 1.2 |
| MUCG | f | 43 | 105 | 122 | 62 | 6 | 3 | 5 | 6 | 18 | 3 | 2 | – |
| | % | 65.2 | 66.0 | 18.2 | 39.0 | 9.1 | 1.9 | 7.6 | 3.8 | 27.3 | 1.9 | 3.0 | – |
| USA | f | 6 | 67 | – | 17 | 1 | 9 | 3 | 2 | 3 | 20 | – | – |
| | % | 60.0 | 61.5 | – | 15.6 | 10.0 | 8.3 | 30.0 | 1.8 | 30.0 | 18.3 | – | – |
| MU | f | 49 | 31 | 6 | 7 | 4 | 5 | 3 | 2 | 13 | 4 | 2 | – |
| | % | 62.8 | 64.6 | 7.7 | 14.6 | 5.1 | 10.4 | 3.8 | 4.2 | 16.7 | 8.3 | 2.6 | – |
| Total | f | 514 | 624 | 127 | 265 | 154 | 230 | 56 | 104 | 136 | 151 | 24 | 3 |
| | % | 56.4 | 53.5 | 13.9 | 22.7 | 16.9 | 19.7 | 6.1 | 8.9 | 14.9 | 12.9 | 2.6 | 0.3 |

It can be seen from Table 3 that car travel is the predominant form of transport followed by bus and then air. It can also be seen that women share car travel with another student more often than do men (22% vs 13%; $chi^2$ 17.722, 1df, p = 0.010). Differences also occur within institutions; for example, 3.9% (f = 3) of female USQ students travel by air compared with 12.7% (f = 26) of males.

Figure 4 shows that the mean travel costs for students at all institutions except MUCG are relatively uniform. The overall mean travel cost is $157; the MUCG mean is the lowest at $109.

At all institutions the mean travel cost for males is greater than that for females; this disparity is greatset at MUCG where the male mean travel cost is $253, and for females it is $51. This may be attributable to the high percentage (27%, f=18) of males using air transport, compared with females (2%, f=3). However if f values are small this result needs to be interpreted with caution.

**Figure 4 Mean travel costs**

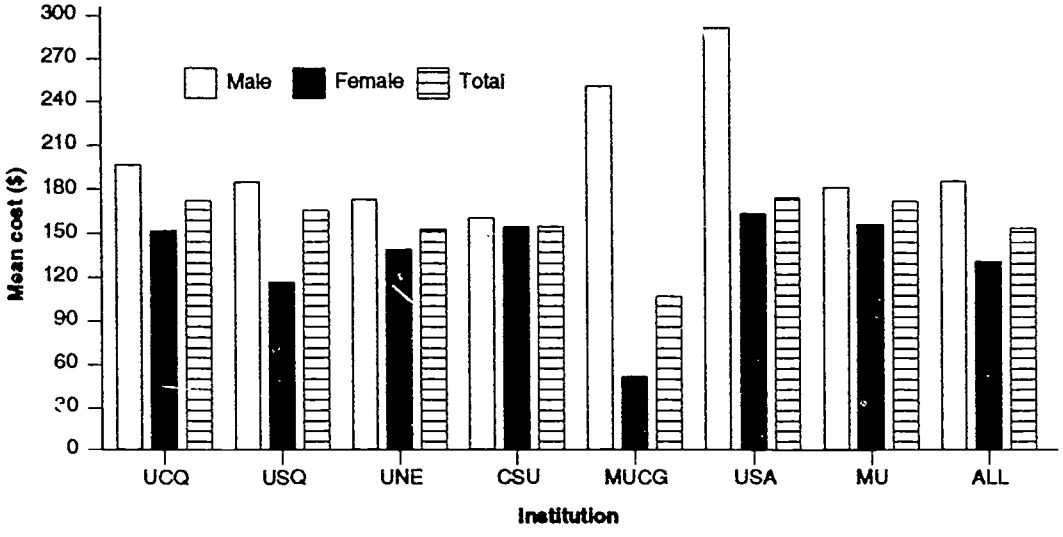



Table 4 details the type of accommodation used by male and female students during on-campus attendance at the seven institutions.

Quite significant variations occur in the type of accommodation used at the different institutions and by male and female students at those institutions.

At five of the seven institutions surveyed, the institution's residential college was the most popular form of accommodation. Over 75% of UNE students stayed at residential college. At USA and MU, the majority of students used either their own homes (28% and 64% respectively) or stayed with family and friends (43% and 25% respectively).

These differences in the type of accommodation used can be explained by the location of the institutions. The USQ and UCQ are located in regional centres, remote from most of their students' places of residence and therefore students use residential college accommodation extensively. On the other hand, students at MUCG attending weekend workshops tend to live within reasonable driving distance from the institution and so a relatively high proportion stay at their own homes (30%, f = 68). MU, drawing on the concentrated population in Perth has an even higher percentage of students staying at home (56%, f = 71).

**Table 4 Type of accommodation used during on-campus activities**

| Institution | | Hotel/motel | | Caravan park | | Accomodation Family/friend | | Residential | | Own home | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | M | F | M | F | M | F | M | F | M | F |
| UCQ | f | 19 | 37 | 9 | 9 | 26 | 34 | 146 | 179 | – | – |
| | % | 7.7 | 14.0 | 3.7 | 3.4 | 10.6 | 12.9 | 59.3 | 67.8 | – | – |
| USQ | f | 37 | 55 | 8 | 1 | 33 | 23 | 100 | 37 | 29 | 10 |
| | % | 17.6 | 6.5 | 3.9 | 1.3 | 16.2 | 29.9 | 49.0 | 48.0 | 14.2 | 13.0 |
| UNE | f | 21 | 30 | 9 | 16 | 25 | 35 | 169 | 275 | 7 | 14 |
| | % | 9.6 | 8.7 | 4.1 | 4.6 | 11.4 | 10.1 | 77.2 | 79.7 | 3.2 | 4.1 |
| CSU | f | 19 | 27 | 10 | 15 | 3 | 10 | 62 | 110 | 3 | 16 |
| | % | 21.6 | 16.4 | 11.4 | 9.1 | 3.4 | 6.1 | 70.5 | 66.7 | 3.4 | 9.7 |
| MUCG | f | 5 | 23 | 1 | 5 | 1 | 17 | 48 | 62 | 11 | 57 |
| | % | 7.6 | 14.5 | 1.5 | 3.1 | 1.5 | 10.7 | 72.7 | 39.0 | 16.7 | 35.8 |
| USA | f | 2 | 19 | 2 | 6 | 5 | 47 | 2 | 9 | 2 | 31 |
| | % | 20.0 | 17.4 | 20.0 | 5.5 | 50.0 | 43.1 | 20.0 | 8.3 | 20.0 | 28.4 |
| MU | f | 5 | 3 | 1 | 2 | 27 | 12 | 4 | 2 | 40 | 31 |
| | % | 6.4 | 6.3 | 1.3 | 4.2 | 34.6 | 25.0 | 5.1 | 8.3 | 51.3 | 64.6 |
| Total | f | 107 | 144 | 40 | 54 | 120 | 178 | 531 | 674 | 92 | 159 |
| | % | 11.7 | 12.3 | 4.4 | 4.6 | 13.2 | 15.3 | 58.3 | 57.8 | 10.1 | 13.6 |

**Figure 5 Mean Accommodation Cost**

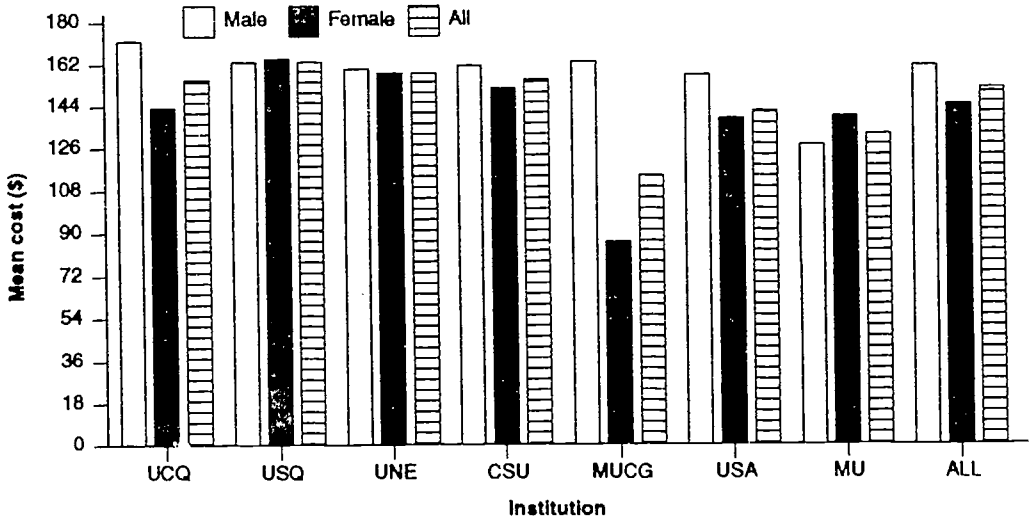


Figure 5 presents the mean accommodation cost to students for attendance at on-campus activities. The average cost for accommodation is $153, ranging from $144 at MUCG to $159 at UNE. For all institutions except USQ and MU, the mean female cost is less than that for males, and in the former the costs are virtually the same.

The variations in accommodation costs between institutions and between sexes are less than the variations in travel costs. The only major differences in the former being between males (mean = $163) and females (mean = $86) at MUCG. This may be explained by the differences in type of accommodation used (35.8% of females staying at home and 29% at residential college, compared with 16% and 72% respectively for males).

**Additional expenses**

In addition to travel and accommodation costs, students incur such costs as stationery, phone calls, additional meals and child-minding. These results are summarised in Table 5 which presents the frequencies (f) and means of responses regarding living costs for on-campus attendance.

There are only minor variations between institutions and sexes. An exception is at UCQ where both males and females have higher living costs (the average overall living cost is $75.00). The higher costs at UCQ may be attributable to the length of this institution's on-campus activities: science students who form the majority of students attending on-campus activities stay an average of 12 days.

**Table 5 Mean living costs while attending on-campus activities**

| Institution | | Male | Female | All |
|---|---|---|---|---|
| UCQ | f | 147 | 188 | 335 |
| | mean ($) | 111 | 115 | 107 |
| USQ | f | 147 | 57 | 214 |
| | mean ($) | 65 | 55 | 62 |
| UNE | f | 178 | 277 | 455 |
| | mean ($) | 59 | 70 | 66 |
| CSU | f | 76 | 121 | 197 |
| | mean ($) | 68 | 72 | 70 |
| MUCG | f | 46 | 107 | 153 |
| | mean ($) | 62 | 54 | 56 |
| USA | f | 4 | 60 | 64 |
| | mean ($) | 49 | 57 | 56 |
| MU | f | 27 | 19 | 46 |
| | mean ($) | 49 | 42 | 46 |
| Total | f | 625 | 829 | 1454 |
| | mean ($) | 74 | 76 | 75 |

Students who take time off work without pay to attend on-campus activities also incur a cost in terms of loss of salary. Approximately 17% (f=356) of respondents indicated that this circumstance applied to them and the average loss of salary annually to attend on-campus sessions was found to be $382 (range $186–$588). Salary losses are presented in Table 6 below.

**Table 6 Loss of salary incurred for attendance at on-campus activities**

| Institution | | Male | Female | All |
|---|---|---|---|---|
| Science | f | 83 | 43 | 126 |
| | mean | 467 | 361 | 431 |
| Maths & Computing | f | 4 | 1 | 5 |
| | mean | 588 | 200 | 510 |
| Health science | f | 5 | 84 | 89 |
| | mean | 186 | 330 | 322 |
| Business | f | 10 | 6 | 16 |
| | mean | 570 | 461 | 529 |
| Arts | f | 5 | 10 | 15 |
| | mean | 348 | 400 | 382 |
| Education | f | 30 | 69 | 99 |
| | mean | 439 | 317 | 354 |
| Total | f | 138 | 218 | 356 |
| | mean | 457 | 335 | 382 |

Variation in salary loss of between $186 and $588 on the surface is relatively small and possibly reflects the interplay of a number of factors, for example the duration of on-campus activity and the level of employment of the students and student salary. With the exception of students in the arts and health science, loss of salary for males is greater than for females.

Financial support for students attending on-campus activities is primarily available from employers and to a lesser extent from students' families. Wide variations in the level of support for male and female students in the different disciplines is evident from Table 7, with females receiving less employer support overall, and science and business students receiving the highest levels.

The level of employer support is, however, obviously affected by the levels of employment of males and females within the various disciplines. Figure 6 below provides *full-time* employment levels by discipline and by sex, showing that the percentage of full-time employed students is greater for males than for females, especially in the science and maths and computing areas. The variation between sexes and across disciplines for *part-time* employment is minimal.

## Table 7 Sources of financial support

| Institution | | Discipline: Science | | Maths & computing | | Health science | | Business | | Arts | | Education | | All | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| None | f | 181 | 93 | 39 | 26 | 15 | 204 | 40 | 18 | 28 | 51 | 84 | 293 | 394 | 695 |
| | % | 38.2 | 57.4 | 37.9 | 63.4 | 40.5 | 55.7 | 45.5 | 48.6 | 62.2 | 64.6 | 60.0 | 63.7 | 43.2 | 59.6 |
| Direct employer | f | 98 | 13 | 9 | 3 | 4 | 23 | 19 | 2 | 2 | 3 | 9 | 14 | 143 | 58 |
| | % | 20.7 | 8.0 | 8.7 | 7.3 | 10.8 | 6.3 | 21.6 | 5.4 | 4.4 | 3.8 | 6.4 | 3.0 | 15.7 | 5.0 |
| Family | f | 11 | 15 | 1 | – | – | 25 | 1 | 4 | 1 | 3 | 1 | 49 | 15 | 98 |
| | % | 2.3 | 9.3 | 0.9 | – | – | 6.8 | 1.1 | 10.8 | 2.2 | 3.9 | 0.7 | 10.7 | 1.6 | 8.8 |
| Time release with pay | f | 254 | 46 | 38 | 9 | 20 | 130 | 46 | 16 | 12 | 13 | 54 | 96 | 429 | 315 |
| | % | 53.6 | 28.4 | 36.9 | 22.0 | 54.1 | 35.5 | 52.3 | 43.2 | 26.7 | 16.5 | 38.6 | 20.9 | 47.1 | 27.0 |
| Time release without pay | f | 61 | 26 | 7 | 2 | 3 | 96 | 8 | 7 | 3 | 9 | 22 | 63 | 107 | 206 |
| | % | 12.9 | 16.0 | 6.8 | 1.9 | 8.1 | 26.2 | 9.1 | 18.9 | 6.7 | 11.4 | 15.7 | 13.7 | 11.7 | 17.7 |
| Use of recreational leave | f | 179 | 49 | 42 | 10 | 16 | 132 | 39 | 14 | 24 | 37 | 61 | 147 | 367 | 393 |
| | % | 37.8 | 30.2 | 40.8 | 24.4 | 43.2 | 36.1 | 44.3 | 37.8 | 53.3 | 46.8 | 43.6 | 32.0 | 40.3 | 33.7 |

## Figure 6 Employment Levels by Discipline

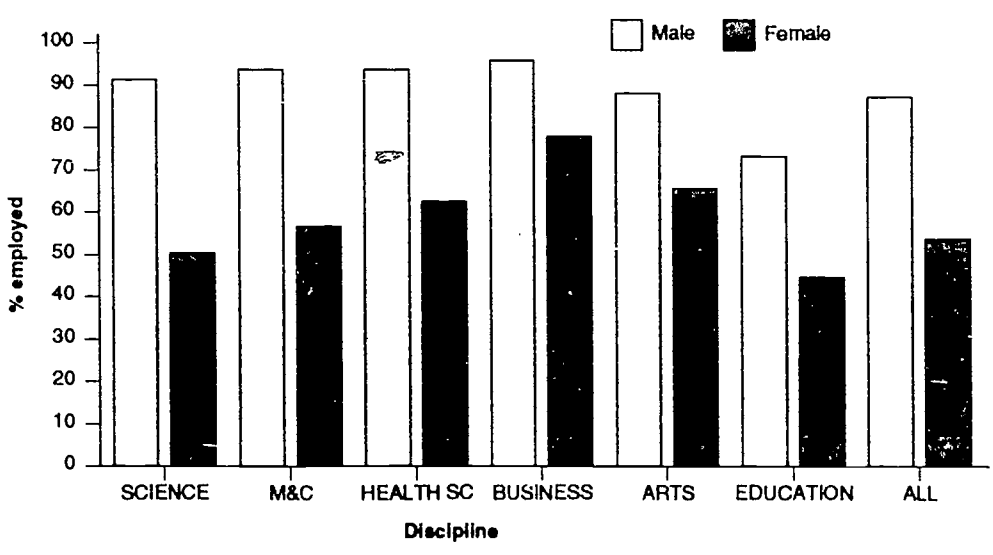



Table 8 analyses the levels of employer support available to both full-time and part-time employed students by sex and by discipline, and reveals that discrepancies do occur between male and female students, and between students in the different disciplines.

Approximately 21% (f = 97) of male science students receive direct financial support from their employers, compared with 10% (f = 13) of females; the figures for business are 21% (f = 19) and 5% (f = 2) respectively.

**Table 8 Level of employer support for full-time and part-time employed students**

| Support | | Discipline | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Science | | Maths & computing | | Health science | | Business | | Arts | | Education | | All | |
| | | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| Direct financial support | f | 97 | 13 | 9 | 2 | 4 | 23 | 19 | 2 | 2 | 3 | 9 | 13 | 140 | 56 |
| | % | 21.5 | 10.2 | 9.2 | 6.3 | 10.8 | 6.7 | 21.8 | 5.9 | 4.8 | 4.1 | 7.6 | 3.9 | 16.6 | 5.9 |
| Time release with pay | f | 252 | 46 | 38 | 9 | 20 | 126 | 46 | 16 | 12 | 13 | 53 | 94 | 421 | 304 |
| | % | 55.6 | 36.2 | 38.8 | 28.1 | 54.1 | 36.7 | 52.9 | 47.1 | 28.6 | 17.6 | 44.9 | 27.9 | 49.8 | 31.8 |
| Time release without pay | f | 59 | 26 | 7 | 2 | 3 | 93 | 8 | 7 | 3 | 9 | 21 | 60 | 101 | 197 |
| | % | 13.1 | 20.5 | 7.1 | 6.3 | 8.1 | 27.1 | 9.2 | 20.2 | 7.1 | 12.2 | 55.9 | 17.8 | 12.0 | 20.6 |
| Use of recreational leave | f | 177 | 43 | 42 | 9 | 16 | 127 | 39 | 13 | 24 | 39 | 58 | 141 | 356 | 370 |
| | % | 39.2 | 33.9 | 42.9 | 28.1 | 43.2 | 37.0 | 44.8 | 38.2 | 57.1 | 50.0 | 49.2 | 41.8 | 42.1 | 38.7 |

Apart from direct financial support, males also appear to obtain more support in terms of time release with pay, thus avoiding the use of recreation leave, or loss of salary due to taking leave without pay. Again, science and business students fare relatively well in receiving support of this nature, as do health science students. Maths and computing, arts and education students, both male and female, receive the lowest level of employer support—females again receive less support than males.

## Summary and Discussion

The results of this study have provided valuable basic information and insights concerning the impact on students when on-campus experiences are used in the provision of distance education in Australia. In particular, the results reveal a range of requirements across institutions and disciplines for on-campus activities and highlight a number of equity issues when distance courses contain a compulsory on-campus component. In summary, to attend on-campus activities:

- Students make an average of 2.2 journeys each year, with a range of means from 1.2 to 7.3 journeys across institutions and disciplines.
- Students spend a mean of 7.3 days annually on-campus, with a range in means across institutions and disciplines of 2.4 to 15.3 days.

- Over 70% of students travel by car, either alone or through shared car travel. This applies to both males and females: females share car travel more than males (22.7% compared with 13.9%). Other forms of travel are used to much the same extent by males and females, with individual differences occurring within institutions.
- Students incur a mean travel cost of $156. The mean for females is $134 and for males $188, and the overall range in means across institutions and gender is from $51 to $295.
- Residential college is the preferred from of accommodation (58%) during on-campus attendance for both males and females, followed by staying with family or friends (14%) and staying at home or in a hotel or motel (12% each). Overall, little variation occurs between the sexes but variations in types of accommodation used do occur between institutions.
- Mean annual accommodation cost for all students is $153. The mean for females is $146 and for males $163. The variation between institutions and gender is relatively small.
- The mean value of additional daily living expenses is $74, with little variation except for UCQ, which has higher costs which are similar for males and females.
- Approximately 17% of students incur a loss of salary, to a mean value of $382: this mean is higher for males ($457) than for females ($335). Wide variations occur between students in different disciplines.
- More than 50% of all students receive no financial support (43% of males, 59% of females); 9% receive direct employer support (15% of males, 5% of females); 5% obtain family support (1% vs 8%) and 35% obtain time release with pay from work (47% vs 27%). When only employed students are considered, 17% of males and 7% of females receive direct employer support; 52% of males and 43% of females obtain time release with pay and 43% and 41% respectively use recreational leave.

Students thus, on average, incur an annual cost to attend on-campus activities of $385 ($425 for males and $356 for females), plus a possible loss of salary or the use of recreational leave.

The differences in the results between institutions for the number and length of attendances for on-campus activities within a particular discipline area or across disciplines can be attributed to different institutional policies (or lack of them) and practices. For example it can be seen from the data that:

- There are variations in the number and duration of attendances in different discipline areas within an institution. At MUCG science

students make an average of 2.5 journeys per year, with an average length of stay of 10 days: education students average 7 journeys, staying on average for a total of 15 days.

- Variations occur within a given discipline between the different institutions. Although science students generally have the highest on-campus requirements, these vary from 2 journeys per year for an average total stay of 12.5 days at UCQ to 1.6 journeys for 4.9 days at USQ.

It would seem that the policies and practices which have developed at the various institutions are a function of the institution's location and hence of the ease of student access for on-campus activities as well as the institution's philosophy regarding the importance of or need for these activities. For example, weekend workshops that are considerably used at MUCG would not be a practical proposition at UCQ due to its remoteness from its students and the resultant high travel costs and times.

A combination of these aspects were seen to influence student travel, accommodation and living costs for on-campus attendance.

Based on the results of the study, critical issues that need to be considered in the provision of on-campus activities as they affect students are direct financial cost associated with travel, accommodation and living expenses whilst attending on-campus activities as well as the inconvenience of taking time away from family and work, and often the use of recreation leave to attend on-campus activities. The positive aspects of on-campus activities as reported by Cameron et al (1991) are the opportunity to meet fellow students, and academic and administrative staff, and to engage in hands-on, practical work.

The results of the study would seem to indicate that females are disadvantaged over males concerning the levels of support, and that students in certain disciplines are also advantaged. For example, it was found that females receive less direct financial employer support and that females studying arts and education are the most affected (4% receiving support in each discipline). Those studying science receive most support (10%). In this study males also receive more support than females in terms of time release with pay (50% vs 31%). As with direct support, students in science and business, and in health science, are more advantaged, with males faring better than females in all other disciplines.

It is interesting to note that females overall spend less on travel and accommodation than males. This may be a function of the financial constraints on females due to lower employment levels and, for those who are employed, of lower salary levels.

## Conclusions

It would appear from this study that costs to students associated with on-campus activities are not inconsiderable and may well be a disincentive for potential students to enrol in courses which do not have such a component. In particular, the results indicate that females are more disadvantaged than males. Cameron et al (1991) found that institutional policies on on-campus activities were not always clearly defined, did not take into account detailed student costs, and generally were not based on some educational philosophy.

Obviously, any alternatives to on-campus activities need to reduce the negative factors of cost and inconvenience whilst ensuring that the positive aspects such as communication, shared experiences and practical work are maintained.

New communications technologies such as video-conferencing and electronic mail, as well as the current delivery strategies of audio cassettes, audio conferencing and video tapes, can be used to create a total learning package which reduces the need for on-campus attendance.

Other alternatives include wider use of home experiment kits, and a higher degree of cooperation between distance education providers. Cross-crediting between institutions would enable students to enrol in subjects requiring on-campus activities at the institution most conveniently located for them, while being enrolled at the institution offering the most suitable course overall. Providing access to facilities for students enrolled at other institutions and/or establishing 'exchanges' of tutorial/lecturer support would also reduce the need for students to travel great distances or spend long periods away from home.

An example of such cooperation between distance education providers is the Australian Science Distance Education Consortium (ASCIDEC). The consortium, consisting of UCQ, MUCG and MU, was established to enhance the provision of high-cost, low-enrolment, physical and biological science courses at a distance. The consortium is exploring the use of cross-crediting arrangements and sharing of laboratory facilities as a means of reducing travel and other costs to students.

Finally, it would seem from this study that there is a strong case for institutions that include on-campus activities in their distance education courses to investigate further the educational needs and benefits of this practice with specific reference to the different discipline areas, and to explore alternatives to on-campus provision at the institution's main campus. Also, any outcome should take into consideration cost to students and impact on access and equity issues.

Chapter 14

# Computers as distance education research tools

**Lin Thompson**

TYPICALLY IN THE course of work a researcher needs to access resources, collect, manipulate and analyse data, and communicate with others to gather or disseminate information. Electronic communications and the sophisticated software we now have available to us could dramatically change the way we go about these tasks.

It was the experiences of a colleague that prompted me to write this paper. Reflecting on his comments made me ask: if his experiences were multiplied by the number of people who eventually read this paper, what could this mean in dollar savings to our nation? Six months ago I happened to notice a discussion group on the computer networks relating to his particular area of research, and having whetted his appetite I arranged for a loan of a computer and taught him how to use it. Little did I know that this was to be the start of a passionate romance—my colleague and his computer are now inseparable! If I can just quote some of his comments:

> ...it has cut years off my research time;
>
> ...I'm now in touch with what others are doing in the field;
>
> ...I contribute to discussions and find out where all the important conferences are;

and on the quality of electronic communication in the academic networks:

> ...it is good because people think about what they say before they comment as it is more open to public scrutiny.

You are probably already aware of how computers are used as personal productivity tools to collate, sort, store, and retrieve research data or information; and you are probably also aware of products that enhance our written presentations. However, having discovered that people at Deakin University don't all know about the network facilities available, I think it fair to assume that not everyone is aware of the multitude of ways in which computers can be used to communicate and access resources through networking, to analyse data, or to keep track

of information. My intention is to explore a few applications commonly used by academics, a few more which they perhaps could be using, and some of the coming technologies as well. It is by no means an exhaustive list.

## Communicating electronically

Communicating with others is an essential part of an academic's day, and valuable time is often lost playing 'telephone tag' or in the transmission time of postal communication. There are several ways in which you can speed the process, as follows.

### Email

Electronic mail (email) probably needs little explanation as it has been around for some time now and, apart from the telephone, is perhaps the most commonly used tool for direct communication with other people. It speeds the communication process when compared with conventional mail in two ways. Firstly, in the time taken to compose and send the message because—whether it is true in your case or not—composition tends to be a little less formal than print, and in any case there is an obvious time saving in that you no longer need to print the hardcopy and manually dispatch it. Secondly, the actual transmission time is reduced to seconds regardless of the respective locations of sender and recipient. It has been my experience, too, that people tend to answer their email far more promptly than their ordinary mail.

The 'alias' feature, which can be found in many of the electronic mail systems, is worth exploring. This enables you to send mail to groups of people using a single user name instead of listing each person individually in the header of the message. For example, sending email to 'IDE'—the user name for the Institute of Distance Education—is far easier than typing 'jocelyn, tevans, juler, lint, dholt, viktorj, and butare'. If you are sending to users who are at different remote locations so that you need to type their full email address; for example, lint@deakin.oz.au, then the saving in time is even greater!

Another feature to be available soon that will greatly enhance our ability to contact people without having to tangle with or track down electronic addresses is the X 500 project; an electronic white pages directory providing a directory service similar to the familiar telephone directories.

### Chatting to Research colleagues on-line

An alternative to international telephone calls for interactive dialogue, and a far cheaper option, is the IRC (Internet Relay Chat) facility now available across the Internet netwo ks. It works by allocating specific channels to interested groups

and enables you to talk to several parties simultaneously by typing text on a split screen. Once you log on to the system you can view the list of users who are simultaneously logged on and the channel to which each of them belongs, you can then choose to join a particular channel or else to create a new channel.

## Accessing resources electronically

Electronic gateways, which allow messages to be passed from one electronic network to another, make it possible to communicate almost anywhere in the world. Consequently, we have seen an upsurge in 'electronic communities' and electronic resources and services. Electronic interest groups abound—such as, newsgroups, academic discussion lists, and electronic journals—in which people are brought together in common discourse through the specialist organisations which promote electronic communications. I will not detail the available electronic infrastructures such as AARNet, Bitnet, Janet, etc, in this chapter but recommend LeQuey (1990), or Frey and Adams (1990) for a guided tour of this great wide world.

### Newsgroups and academic discussion lists

So how do you start exploring some of these features on the electronic networks? I usually recommend that people start with Comserve as it is free, has many features and, as you can see from the following description in Stephen and Harrison (1989), your access to information could grow exponentially as you develop further contacts.

> Comserve is a free resource for students and professionals who study human communication. It is an information service that can provide material to assist your teaching and research. You can use Comserve to locate computer addresses of other people in the profession, to obtain materials contributed by other users, to share your own work, to post electronic questionnaires, to initiate or participate in discussions, to locate bibliographic references, and for recreation. Comserve is available at no charge, 24 hours a day on the computer networks known as BITNET and the Internet (p. 5).

In the six years Comserve has been operating, over 30,000 users have subscribed to the service and nearly 100,000 files have been handled. You no longer have to attend every conference to keep abreast in your field of study, or wait a year to get hold of the conference proceedings as you can get many of them 'hot off the press'. Not only that but you actually get to find out about the conferences in the first instance. How many times have you seen an advertisement for a conference and thought how relevant it appeared to your work, only to find that it occurred in the previous month! But perhaps of biggest benefit to researchers are the 'hotlines' or electronic interest groups available on the service. Repre-

senting major areas of study within the communication discipline, they cut across many topics: rhetoric, interpersonal communication, research methods, mass communication, philosophy of communication, political communication, intercultural communication, communication and gender, ethnomethodology, communication education, and health communication (Comserve, 1990).

How do you access it? You need to have a computer or terminal with access to a communication network that will connect with Bitnet or Internet. If you are not sure about this you may have to check with your local computing experts. You can get further information on how to subscribe to the various Comserve facilities by sending a mail message to either:

COMSERVE@RPIECS.BITNET (Bitnet)

COMSERVE@VM.ECS.RPI.EDU (Internet)

with the following single command by itself in the body of your e-mail message:

send Comserve HelpFile

You can either communicate with Comserve interactively, or through the electronic mail system.[1] Full instructions on how to do this are sent to you electronically when you subscribe.

### Journals

Growing in number and popularity are the electronic journals available on the networks.[2] You can subscribe to an email distribution list by sending the appropriate command in an email message. These commands can be found in any of the electronic journal listings such as the directory by Strangelove and Kovacs (1991). Some journals are fully edited like their hardcopy counterparts, but others are less formal and are more like an interactive newsletter. One in particular to which I subscribe is *The distance education on-line symposium* (DEOSNEWS). The American Center for the Study of Distance Education at the Pennsylvania State University which publishes *The American Journal of Distance Education* organizes this electronic version (Strangelove and Kovacs, 1991).

Strangelove and Kovacs claim that electronic journals differ from conventional magazines in two significant ways. The first I believe can be seen as either an advantage or a disadvantage, but the second is definitely a plus.

> First is the uncompromising sequentiality of on-line media—readers can not skip past on-line articles that don't interest them. And second those that write for journals generally are on the same network as those who read it. It is therefore much easier for writers and readers to contact each other (1991, p. 16).

**Databases and libraries available from your desktop**

One of the great things you can get from the networks once you start exploring, is current listings of available on-line databases and library catalogues. These lists contain instructions on how to access the various databases and library catalogues and the access rights to each. There is a growing number of free services throughout the networks and others to which you can subscribe at a cost. It may pay to check with the library where you work as they may already have subscriptions to some of them.

Databases can be a store of archived documents kept on a computer somewhere on the network. You can retrieve a copy of any document by sending an email message. The message is then dealt with by the remote machine and the request automatically dispatched. For example, by addressing an email message to 'Comserve@rpiecs.bitnet' with a one-line command in the body of the letter, 'send hansen paper', I was able to receive a full copy of a particular research study in Indiana that I was seeking and it took just fifteen minutes. Alternatively, it can be a more sophisticated system which allows you to perform on-line searches and to retrieve information selectively. For example the International Centre for Distance Learning (ICDL) database located at the Open University in England, which contains a wealth of information on distance education, is accessible for on-line searching and selective retrieval. The AARNet network fees are calculated on the basis of student numbers and independently of actual usage. It therefore costs no extra to use these facilities if you are fortunate enough to have access to this network.

## Keeping track of information electronically—bibliographic software

A problem researchers are often faced with is the tedious task of keeping track of the masses of information they collect. You tag something to remind you and then leave it sitting in an obvious place for fear that you won't be able to track it down again when needed. The result is a desktop—and in some cases the chair and floor as well!—that is piled so high that you can't find anything anyway. Another time-consuming task is that of compiling bibliographies. How much easier it is to have a bibliographic program that is directly accessible from your word processing program, so that you can enter or retrieve information, while writing your paper. Having completed the article you format the document and your bibliography is automatically composed along with the proper in-text references printed in your preferred format. Many of the programs available allow you to enter information according to category; that is, books, journals, reports, etc.; and the better ones give you further flexibility in that you can tailor them to your specific needs. Other features include the ability to enter abstracts

and annotate notes which can then be retrieved using text search features, and a separate location field in which to make notes of the physical location of items. Such programs vary in sophistication, price, and ease of use.

## Electronic aids for the analysis of data

There is a wide variety of database, spreadsheet, and statistical software programs for analysing data which are well documented and need no elaboration here. Perhaps, though, some of you may not be aware of other programs that are available, and others being worked on, that will assist in qualitative research. For example the text analysis program called NUDIST (Non-numerical Unstructured Data Indexing, Searching and Theory-building), developed at Latrobe University and demonstrated at Deakin University during 1990, which allows text, graphics or scanned images to be coded and stored in a way that permits identification, linking, and retrieval of data for qualitative analysis (Richards, 1990).

Another project which has taken a phenomenal amount of time to develop although I am not exactly sure of its current status, is the Xanadu Project in California. Basically, Xanadu allows unstructured multimedia information—anything from post-it notes and drawings to video clips—to be managed and accessed in the one program. Information is stored as individual bytes which allows fine-grain linking and analysis. The system is based on an 'open' hypertext format whereby multiple users can access the same data. Data, once entered, remains intact as the system then creates 'virtual' copies for manipulation. This makes it a powerful system in that it enables tracking as well as linking of information and thought processes across a variety of media (Davenport, 1991). The system would be useful for collaborative research projects, for large projects that require tracking of information and thought processes, or for linking of information collected from a variety of sources and on a range of media.

There are others just at the conceptual stage, like the Exploratory Sequential Data Analysis system (ESDA) being developed at the University of Illinois, which will enable data to be collected on a variety of media—video-tape, audiotape, computer files etc.—to be co-ordinated for analysis. The system combines the philosophy of visualization promoted in Exploratory Data Analysis (EDA) with statistical techniques known as Sequential Data Analysis (SDA) (Watson, 1990).

## What we need now is to simplify the process of electronic access

Accessing the networks is not a difficult process but you do have to know how to address a particular network, and terms like 'telnetting' and 'ftp-ing' and 'hosts' often deter people from using these wonderful facilities. What we need to do now is put pressure on the network gurus and our computer support people to come up with sensible interfaces which facilitate access. Deakin University has recently developed a scripted menu-driven system through which connecting to a number of the libraries and databases is simply a matter of selecting an option from a menu and the process is then automatic.

Computers can become a powerful resource to the academic researcher. As for the dollar savings, think about what it means to speed the communication process and to be able to widen the knowledge base of each researcher. To maximise efficiency and optimise resources, researchers need to be informed of current happenings in their respective fields of research, and to be able to tap into the work of others—both historic and current. The various media now used for information collection provide new challenges to the processing techniques in research. Computers can contribute to the field of 'research in distance education' in a very significant way.

### Endnotes

1 Note that different computer systems may require variations in the way you specify Comserve's network address. If you experience difficulty or wish for further assistance you can contact them at:

Comserve, Department of Language, Literature, and Communication
Sage Labs, Rensselaer Polytechnic Institute
Troy, New York 12180, USA

Hardcopy manuals are also available from Comserve.

2 For a comprehensive list of available journals and instructions on how to subscribe see Strangelove and Kovacs (1991) available through:

Office of Scientific and Academic Publishing, Association of Research Libraries, 1527 New Hampshire Avenue, NW, Washington, DC. 20036 USA.

Chapter 15

# Language learning for off-campus students

**James Butare-Kiyovu**

THIS CHAPTER IS concerned with three types of off-campus language learning :

1 Second Language (L2) learning, where L2 is the official language and the language of instruction in schools; for example, English in the English speaking countries of Africa, where learners have various mother tongues which they use in their homes.

2 Second Language learning, involving migrants, in a country where L2 for the migrants is the first language (L1) of the country; for example, non-English speaking migrants in Australia, where English is spoken 'with varying degrees of fluency and variation by almost all Australians, for most of whom it is the mother tongue' (Commonwealth Department of Education, 1982).

3 Foreign Language (L3) learning in any country, for example, German, Japanese, and French in Australia.

I am using the term 'language learning' to refer specifically to the face-to-face and distance education processes of learning a first, second or foreign language, while 'language acquisition' will refer only to the natural way of acquiring one's first language, commonly known as 'mother tongue'.

Some of the arguments which have led me to distinguish between language acquisition and language learning include the fact that learning implies making a deliberate effort, of which there is no evidence in the case of young children beginning to use their first language. Learning also implies teaching, of which there is again very little evidence in L1 acquisition, except of course, for the occasional corrections by the adults.

L1 speakers, within a given language community, are also exposed to language under many varying conditions and situations. Some linguists have compared this natural way of acquiring language to a 'linguistic bath', whereby an individual is, as it were, completely surrounded by language under its various uses from childhood. This is totally different from L2 and L3 learners who may only

meet the language in the classroom. The important implication of such differences for language teaching is that methods used for training L1 native speakers—which are outside the scope of this paper—should be different from those intended to train L2/L3 learners.

I am convinced that through 'research in distance education', new and efficient methods in second/foreign language learning will be found. I shall use this paper to review some of the main findings in language learning and to relate them to distance education practice and research.

## Characteristics of L2/L3 language learners

Research into some characteristics of language learners—notably age, attitude and motivation—from a distance education viewpoint would be of great benefit in second language teaching.

### Age

'Age...is the most commonly cited determinant of success or failure in second language learning' (Hatch, 1983, p. 105).

There is a persistent hypothesis, initiated by Eric Lenneberg (cited in McLaughlin, 1978), that pre-puberty is an optimal age, or 'critical period' for second or foreign language learning. That critical period is 'usually defined as lasting from about age 2 to puberty' (p. 48). McLaughlin, goes on to report the findings of Penfield and Roberts:

> ...that the children of immigrant families typically acquire the new language in a brief period of time and can speak it easily and with little accent...The same can rarely be said for their parents, who typically have enormous problems learning the language and usually never learn to speak it without an accent (p. 55).

Hatch's more recent study has shown, however, that research does not strongly support an optimal-age hypothesis which says 'the younger the better'. Nor does it support a contrary hypothesis, 'the older the better'. She notes that it is still too soon to make strong claims, and recommends that we need to accumulate findings from more careful research (Hatch, 1983, p. 112).

Traits which apply specifically to L2/L3 distance learners need, therefore, to be studied because of their obvious implications for the preparation of appropriate language methods and study materials.

**Attitudes and motivation**

Attitudes towards the target language community, and integrative and instrumental motivation are some other factors which greatly influence L2/L3 learning.

*Attitude towards the target language community*—A negative attitude towards the language or its speakers can affects one's determination and persistence in learning the language. There are many reasons why a learner who is favourably disposed towards the speakers of the target language is likely to learn better. The most important of them is that such a learner will wish for more intensive contact with the target language community, a factor which has been observed to favour effective language learning.

*Integrative and instrumental motivation*—The effects of attitudes on motivation and proficiency have been investigated especially by Gardner and Lambert (1972). These researchers related their findings to two basic kinds of motivation, which they called integrative and instrumental. These are distinguished as follows:

- Learners with integrative motivation have a genuine interest in the second language community. They want to learn their language in order to communicate with them more satisfactorily and to gain closer contact with them and their culture.
- Learners with instrumental motivation are more interested in how the second language can be a useful instrument towards furthering other goals, such as gaining a necessary qualification or improving employment prospects.

Gardner and Lambert (1972) studied mainly English-speaking learners of French in Canada where there is a community of French native speakers. The results from these studies show that learners with a higher integrative orientation are likely to achieve greater proficiency. Other research has indicated, however, that the level of the learners' instrumental motivation does in fact correlate best with their success in second language learning.

There is, again, lack of research in distance education to show whether off-campus L2/L3 learners have the integrative and/or the instrumental motivation—both strong factors in such second or foreign language learning. Results of such studies for distance education would strongly influence the type of language method(s) to use and the kind of study materials to develop. We would know, for example, whether to develop 'general' language materials for integrativists or 'functional' language materials for instrumentalists.

## Methods in second and foreign language teaching

An outline of the most relevant methods is given below because of the insights which providers of distance education language courses have gained, and can still gain, from such provision.

Specialists who contribute to the development of methods in L2/L3—for example, applied linguists who supply 'what to teach' and methodologists who are concerned with 'how to teach'—normally take into consideration that most L2/L3 are learnt at a distance, often thousands of kilometres away from the countries of origin of the target languages. As a result, most of them incorporate the use of non-print media, a situation which also happens to be a major consideration for distance education in other subjects.

### The grammar-translation method

As its name implies, the objectives of this method are the teaching of rules of grammar and the translation of sentences and longer passages into the target language.

Originally, the method insisted on the study of the literature of the target language, and on the development of analytical skills through the study of grammar. But the method has changed over the years, always in line with the linguistic knowledge and theory of the time. This adaptability of the grammar-translation method is considered to be one of the most important factors in explaining its viability over the years.

### The direct method

This, the second well-known method, arose as a reaction to the grammar-translation method. The approach underlying it saw speech rather than written language as the main channel of communication to concentrate on, partly because speech was perceived as more universal than writing and partly because children learn their first language through speech. It was therefore thought to be more 'natural' to start acquiring language orally.

The following are some of the main characteristics of the direct method:

- The learner acquires rules of grammar inductively, the best approach being not to make the learner memorize the rules themselves but to provide direct practice in speaking and reading through imitation and repetition.
- The best approach to teaching meaning is the one using sensory experience, generally visual perception.

The main attraction of this method was that learners were supposed to cultivate oral fluency and spontaneity. The method has practically disappeared from language teaching, however, possibly because it fails to impart any real grammatical awareness to the learners.

**The audiolingual method**

The audiolingual method can be seen as the direct successor to the direct method. Both methods put emphasis on the spoken language as the primary objective of language teaching. The only difference is that the audiolingual method has incorporated structural linguistic theory and behaviourist psychology into its foundation.

This incorporation came about during the second world war when the United States Administration, was faced with the task of having to teach oral skills in a large variety of languages to a big number of military people in a very short time. The army sought the assistance of linguists to develop intensive language courses within the framework of the Army Specialised Training Program. The best-known linguist to have worked on the program was Leonard Bloomfield. After the war, the audiolingual method was further developed by well known American linguists such as Charles C. Fries, Nelson Brooks and Robert Lado, who were also foreign language teachers.

The basic assumption of the method is that second language learning should be viewed as a mechanistic process of habit formation. Arising from this assumption, three main ideas have been greatly emphasized in the teaching of L2/L3:

- that habits are strengthened by reinforcement
- that foreign language habits are formed most effectively by giving the right response, and by discouraging mistakes
- that language is behaviour, and behaviour can only be learned by inducing the student to behave

**The audiovisual methods**

Audiovisual methods as a whole belong to the category of direct methods. One typical example of the audiovisual methods is the structuro-global, audiovisual method (SGAV) which was first developed by the Centre de Recherche et d'Etudes pour la Diffusion du Français (CREDIF) at Saint-Cloud, in France. The following are some of the main characteristics of the method:

- It is linguistically oriented towards structuralism—although it differs from the audiolingual method which has the same orientation. The difference lies mainly in the word 'global' because those who developed SGAV claim that in their method it is not merely the linguistic

structures which are central. Every structure is supposed to be embedded in a situation of language use. In that respect, proponents of the method argue that there are similarities between SGAV and the more recently developed communicative approaches to foreign language teaching.

- It is characterised by a lot of initial emphasis on correct pronunciation, not only of isolated sounds but also of those sounds in words, phrases and sentences.

Several attempts have been made to determine which teaching methods are best by simple comparison. Groups of students studying second and foreign languages, using any of the above methods are often compared, both in long-term and short-term studies.

Quinn and McNamara's (1988) conclusions from comparative studies of the more commonly used methods—audio-lingual versus grammar-translation or cognitive code—were as follows:

- 'Deductive methods' (rule first, then practice, e.g. grammar-translation and cognitive-code) are slightly more efficient than audiolingual teaching for adults. The differences are often statistically significant, but are not huge. Students clearly make some progress using any of these approaches.
- For adolescents, 'there is no measurable difference' (p. 80).

**The communicative approach**

This is the prevailing and most recent of the well known foreign language methods. It is based on the simple but fundamental idea that, if we aim at teaching language for communication, we must first of all ask ourselves what are the communicative needs of the learners?

Van Ek and Alexander (1975) described a level of linguistic proficiency which was termed the Threshold Level or T-Level. This came about as a result of work on the teaching of foreign languages carried out by a committee of European scholars under the auspices of the Council of Europe.

The T-level project was developed using a model for specifying foreign language learning objectives. This model specifies the following components:

1 The situations in which the foreign language will be used, including the topics that may occur in these situations. Typical topics are as follows:
    - personal identification
    - house and home

- trade, profession, occupation
- leisure time and entertainment

In addition, the following situational components are distinguished:

- the settings, such as apartment, hotel, camp site, railway station
- the social roles the learner will fulfil; for instance, friend/friend and stranger/stranger
- the psychological roles the learner will fulfil; for example, neutrality, equality, sympathy and antipathy

2 The language activities learners will engage in and the skills which they will have at their command. The level of proficiency in listening and speaking is such that learners can participate in conversations about the topics specified. In this context, more is demanded of the skill of listening than of speaking .

3 The language functions learners will be able to fulfil, such as giving factual information, turning down an offer, expressing dislike; in short, the various 'speech acts' they can perform.

4 Specifications in terms of behaviour; in other words, what learners will be able to do with respect to each of the topics specified above. For example, with respect to the topic 'trade, profession, occupation' they will be able to supply and obtain information about the nature of certain professions, places of work, working conditions, income and prospects.

5 The general notions learners will be able to handle. This includes notions such as time, space, quality, quantity, goal, and cause and effect.

6 The specific notions learners will be able to handle. These are the notions related to the topics specified above. Learners will, for instance, be able to use the notions related to the topic 'personal identification' such as first name, family name and initials.

7 The language forms learners will be able to use with respect to the specified language functions and general and specific notions.

8 An indication of the degree of skill with which learners will be able to do what has been specified in 1–7 above.

The most important criterion for acceptable performance at T-level is that effective communication should be achieved by means of the foreign language, bearing in mind the following criteria :

- that as speakers, learners can make themselves easily understood by listeners with native or near-native command of the language;

- that as listeners, learners can understand the essence of what is said to them by speakers with native or near-native command of the language without obliging speakers to exert themselves unduly.

## Media techniques

In addition to the printed materials, the following are some of the media, which face-to-face and distance education have used to teach second and foreign languages, with various applications of the methods discussed above.

### Auditory media

The most important equipment used in the auditory media are: radios, tape recorders (reel-to-reel type), cassette recorders, and the telephone. These have all been found suitable for second and foreign language learning by distance education. The selection of one, several or all the media depends on the facilities available in individual countries.

### Radio

Radio broadcasting to schools and to other learners is now a familiar activity in most countries. Although the radio was not specifically designed for teaching, it has become an important source of high quality materials such as interviews, news, various broadcasts, quizzes and so on, which are beneficial to a distance learner.

As far as second and foreign language teaching is concerned, the main function of distance education radio programs is that they can be used in training proficiency, as a basis for conversational activities, and as a means to improve cultural background knowledge.

### Tape and cassette recorders

Tape and cassette recorders are probably the most widely used equipment for off-campus learners. They are used in all phases of L2/L3 teaching and learning activities, both for individual as well as for group work.

Tape and cassette recorders offer distance learners the opportunities to practise with spoken materials in the absence of a teacher. This can be done at home or anywhere outside the usual classroom situation.

A large quantity of L2/L3 course materials suitable for tape and cassette recorders is available, especially for English and other major international languages such as French and Spanish.

**Language laboratory**

The popularity of language laboratories started with the rise of the audiolingual method. As most of the advocates of audiolingualism have pointed out, the language laboratory can be effective in foreign language learning, in terms of the repetition and over-learning of behaviour patterns that are intended to become habitual.

Distance learners, however, can only use a language laboratory during on-campus residential sessions.

**Telephone**

Countries with good telecommunication networks can use the telephone to make foreign language learning less impersonal. This practice is made even more interactive by teleconferencing, where a group of learners and their tutor are simultaneously brought into audio contact by telephone.

In a situation where a number of students can meet as a group—for example, in distance education regional centres—foreign language learning by teleconferencing can also take on characteristics normally associated with face-to-face language teaching. For example, 'simulation', which means activities involving dramatisation and group discussion, and other types of group work sessions.

There are also some multimedia applications of teleconferencing and electronic whiteboard systems which are being used to link a language teacher to a group of students some distance away. The face-to-face, 'chalk and talk' method is thereby replaced by the combined electronic whiteboard and teleconferencing system which allows students to read what the teacher writes on the board, and the teacher to read and comment on what pupils write on their boards.

**Audiovisual media**

The most important advantage of the audiovisual media—television and video—is that they present the sound with moving pictures. This makes it possible to achieve a much better presentation of authentic language use in real situations, for those Countries and distance education institutions which can afford the costs.

## Computer-assisted language learning (CALL) and videoconferencing

Langley (1990, p. 289) gives three main areas where progress has been achieved:

> Firstly, we have seen the production of more and more sophisticated learning packages relating to grammar, vocabulary and general 'cultural knowledge'...
>
> A second area in which much progress has been made is that of the production of interactive video materials. Many teachers of language consider that interactive video is by far the most attractive path for CALL to take in the immediate future.
>
> Commercial packages have been marketed by, for example, Eurocentres and Hachette, which have produced videodiscs for teaching English and French as foreign languages...
>
> A third area in which interesting and useful developments have taken place is the adaptation of other computer-based materials for CALL .

Sussex and Cumming (1990) in their contribution on intelligent tools and lexical support for the language learner, acknowledge that 'students of foreign languages have well-known difficulties in acquiring lexical resources to support their conceptual and communicative needs' (p. 459). They go on to say that:

> Language teaching methodology has not so far made a significant impact on the search problem, though progress has been made with the selection and organisation of the vocabulary to be learnt at each stage in terms of frequency, communicative and topic relevance, and active/passive lists.

In a more recent international survey on computer-assisted language learning at a distance, Dominique Abrioux (1991), sets out the following objectives:

> The present study, by directly approaching practitioners of L2 instruction in distance education institutions, seeks both to quantify the current and anticipated use of CALL in distance education settings at the tertiary level and to analyze the evolving trend.

Seventy-two institutions were surveyed, 'eight Canadian, thirty-seven American, and twenty-seven from other countries in the world'. Sixty-five institutions, that is, 90%, responded.

> Of these sixty-five, however, seventeen reported that they were not engaged in L2 instruction at a distance, thereby providing, for the purpose of further study, a sample of forty-eight institutions: eight Canadian, twenty-five American, and fifteen from other countries.

Table 1 shows the numbers and percentages of the institutions which responded and which teach one or more of the languages at a distance.

Abrioux goes on to point out in his paper that a 1990 newsletter of the European Association of Distance Teaching Universities (EADTU), entitled EADTU-NEWS, reported that:

> ...open university language programs are now available in Denmark, France, Germany, Italy, Norway, Portugal, and Spain, with ESL being taught most frequently and to the greatest number of students. Significant new programming in L2 is currently being planned by the British Open University (French) and by the Dutch Open University (various languages).

**Table 1 Languages taught at a distance by the surveyed institutions**

| | Institutions | |
|---|---|---|
| Language | Frequency | Percentage |
| French | 36 | 75 |
| Spanish | 30 | 63 |
| German | 29 | 60 |
| English | 21 | 44 |
| Russian | 9 | 19 |
| Italian | 8 | 17 |
| Latin | 8 | 17 |
| Chinese | 7 | 5 |
| Japanese | 6 | 13 |
| Greek (classical) | 4 | 8 |
| Hebrew | 2 | 4 |
| Norwegian | 2 | 4 |
| Others (20) | 1 | 2 |

At Aalborg University in Denmark, for example, the focus of their current research—in collaboration with EADTU— is reported to be on: better computer programs to improve practical communication skills, both written and spoken; language correction programs; electronic tools, such as dictionaries; term banks; and machine translation programs (Aalborg University, 1991).

It should be mentioned here, for those who might be interested, that there are already various electronic dictionaries, which can be used by foreign language learners. These include, to name only a few major ones:

- the *American heritage dictionary of the English language* Microsoft Bookshelf and 'CD-ROMs in Print 1990'
- *Harrap's multilingual CD-ROM dictionary database: English, Dutch, French, German, Italian, Spanish, Chinese & Japanese* 'CD-ROMs in Print 1990'

- *Macquarie Dictionary/Thesaurus* Dictionary Research Centre, Macquarie University, NSW;
- *Oxford English Dictionary on CD-ROM* Oxford Electronic Publishing, OUP
- *'Robert electronique' on CD-ROM* (French) Chadwyck-Healey, VA (Wooldridge 1991)

During the Australian and South Pacific External Studies Association (ASPESA) biennial forum in Bathurst, NSW, July 1991, two striking applications of computer-assisted language learning and video-conferencing for L2/L3 learning were reported.

The first one was a successful presentation by Isabel Tasker, from the External Studies Unit, Murdoch University, of a computer-assisted, Chinese language learning program—at an advanced developmental stage—for undergraduate beginners. The presentation, on Macintosh computer, reflected an interesting combination of grammar-translation, audio-visual and communicative approaches to teaching Chinese pronunciation, grammar and vocabulary. There was also enough evidence that:

> The program is designed particularly with open learning needs in mind: ease of use, self-pacing, navigational clarity, and extensive feedback. It allows the distance learners using the program to know, for example, whether they have correctly recognised a Chinese sound or word; and whether they can correctly reproduce the direction and sequencing of character strokes (Tasker, 1991).

The second application was reported in a paper by two staff members of the Adult Migrant English Program (AMEP) in Western Australia, who started using a videoconferencing system in October 1990 for group sessions.

Some of the advantages of videoconferencing reported in the paper, are the genuine excitement on seeing for the first time people they had previously talked to only on the phone and cassette. They also found the novelty of the new medium stimulating. Lastly, and I think most importantly, they felt that the videoconferencing experience closely resembled face-to-face interaction in spite of 'the picture in compressed video' which they found 'slightly jerky' and to have 'a one second sound delay' (Harris and Hague, 1991).

During a staff development seminar on 'Videoconferencing at Deakin University', Diane Thompson and Robert Brownlee, both from the Institute of Distance Education, demonstrated some interesting applications of the graphic camera as a slide projector.

Transmission of colour images, via the graphic camera, from slides, overhead

projector transparencies, and hard copies can easily be applied to second and foreign language teaching, thereby providing varied activities to the distance learner. Activities which have, so far, only been thought possible with face-to-face language teaching.

## Conclusion

The widespread, sceptical view that foreign languages cannot be learned at a distance will eventually disappear as more and more learners get access to the new computer and video applications. For the moment, however, only a few institutions can afford them.

Meanwhile, most distance-based L2/L3 developers will continue to rely on media other than computers in order to meet the challenges that the distance delivery of L2/L3 gives rise to, a situation clearly demonstrated by Abrioux in his internationally conducted survey.

Chapter 16

# Creative conflict theory and postgraduate research in distance education

**Ernst Ralf Hintz**

THIS CHAPTER CONSIDERS the application of creative conflict theory to postgraduate research in distance education. The aim is to empower graduate students to engage critically in a positive confrontation with educational theory. Diverse factors may jeopardise this engagement: students' experience and ability to work with theory is often in varied stages of development; and the willingness to explore theory may be restricted by jargon, technical terms, and the lack of training in formal logic. Even the Western philosophical tradition of 'common sense' with its distrust of theory can discourage students from applying theoretical constructs to educational practice. Nevertheless, the ability and willingness to confront theoretical literature and conflicting views remains a determining factor for success in postgraduate studies.

## Conflict resolution and creative conflict

Conflict resolution is an *interdisciplinary* approach which seeks to deal with conflict positively.[1] This is especially germane to students pursuing postgraduate degrees in Distance Education who already demonstrate a range of skills, work experience, and educational backgrounds. The underlying assumption of conflict resolution is that conflict need not be destructive and that all parties can benefit from the resolution (Hintz, 1991). For the purpose of this paper, 'conflict exists when two or more parties perceive that their values or their needs are incompatible' (Tillett, 1990, p. 6). When conflicting parties are exponents of differing theories and research methods, graduate students who engage in research become a party to this conflict.

The two traditional responses to conflict are fight and aggression, or flight and submission. Graduate students dealing with theoretical literature and the demands of research—often for the first time—may prefer avoidance to engagement. Yet engagement need not involve a fight with winners and losers, pyrrhic victors, and parties that win a little and lose a little. It can involve resolution that

is of benefit to all parties—both students and professional practitioners—in the research community. The tendency to brand dissension among adherents of competing theories as destructive may impede thesis-level research through dysfunctional conflict and the restriction of dialogue as a process of scientific inquiry. Since aggression and avoidance are not beneficial approaches to conflict in educational research, an alternative must be sought in creative, innovative resolution.

Creative conflict theory views conflict as a potentially 'constructive' process, as an opportunity—a springboard—for developing new ideas, and creating significant innovations and advances. It is when effective analysis of conflict is avoided, or conflict becomes synonymous with aggression and a fight, that it becomes destructive. Morton Deutsch (1972) in a seminal article from the discipline of Conflict Resolution, highlights the salient features of constructive resolution:

> My own predilections have led me to the hunch that the major features of the productive conflict resolution are likely to be similar, at the individual level, to the processes involved in creative thinking and, at the social level, to the processes involved in cooperative group problem-solving (p. 382).

As a part of a highly applied discipline, creative conflict theory involves students in both the search for innovative solutions and the practice of resolving conflict in graduate research. This problem-solving aspect proves especially attractive as students are encouraged to view themselves as participants in a heuristic venture. By thinking about and discovering resolutions to conflicting theories, methods and practices, students can clarify interrelationships which point the way towards innovative, creative research.

The perception of conflict as a creative opportunity can empower students to resolve conflict as a non intimidating exercise. In this view, creative conflict theory promotes an 'interactive discourse' between students and critical texts (Juler, 1990); the willingness to deal with conflict creatively and engage with theoretical materials can begin to supersede aggressive resistance or avoidance. The threat to closure in graduate research is restricted and the constructive process as dialogue can continue.

Yet dialogue may become imperilled when parties perceive it through a negative metaphor of conflict, namely, 'argument as war':

> Arguments usually follow patterns; that is, there are certain things we typically do and do not do in arguing. The fact that we in part conceptualize arguments in terms of battle systematically influences the shape arguments take and the way we talk about what we do in arguing. Because the metaphorical concept is systematic, the language we use to talk about that aspect of the concept is systematic (Lakoff and Johnson, 1980, p. 7).

Instead of the metaphorical concept of argument as war, where discussion of contrary views is understood in terms of lines of attack and defence, and gaining or losing ground, parties can adopt a positive metaphor. One such structural metaphor is 'argument as dance'. In this perception, '...the participants are seen as performers, and the goal is to perform in a balanced and aesthetically pleasing way' (Lakoff and Johnson, 1980, p. 5).[2] Parties engaging in dialogue about conflicting theoretical views can explore the *complementarity* of these views in a fashion similar to 'free dance', where choreography provides for variant patterns, innovation, flexible responses, and creative tension without fear of destructive conflict. In observing the beneficial similarities of education to art as a form of communication, Arthur Koestler (1969) eloquently states:

> Art is a form of communication which aims at eliciting a re-creative echo. Education should be regarded as an art, and use the appropriate techniques of art to call forth that echo (p. 266).

Constructive metaphors may enable students to conceptualise and eventually experience academic debate, re-creating for themselves the differing arguments and drawing their own conclusions. Dialogue based on this type of metaphor can become an interactive and collaborative social activity similar in structure to dance, where participants resolve conflicting movements, structures, and interpretations to their own mutual benefit and that of their art.[3] Although metaphors conducive to creative conflict can be persuasive, they must lead to performance.[4] To achieve performance, in this case, to engage in a creative dialogue with educational theory, students require guidelines for recognising types of conflict.

## Recognising types of conflict

The types of conflict—either directly manifest or in hidden agenda—which appear in research literature are classifiable according to five basic structures:[5]

- intra-personal (or intra-text) conflict—the conflict within ourselves or within the work of an author or team of authors (for example; competing demands or expectations, conflicting values, inappropriateness of language to the task, compromised positions, and even the reluctance to consider a position, etc.)
- inter-personal (or inter-text) conflict—the conflict between two individuals or two authors (for example; between two exponents of differing research directions, established researcher and graduate student, etc.)
- intra-group conflict—the conflict within a group (for example; two conflicting factions within a single research group)

- inter-group conflict—the conflict which occurs between groups ( for example, between research groups or schools of research)

In addition to the above four types that deal with the parties to conflict, the fifth type below concerns the nature of conflict:

- value conflict—this conflict can augment any of the types mentioned which focuses on values, ideologies, morals, ethics and beliefs (for example, conflict between researchers on the ethical use of interview data, differences between schools of research on the definition of technical terms or the use of jargon)

By identifying the various types and the underlying social structures, the students develop cognitive strategies for problem-solving. These strategies may range from 'identifying contradictions' and 'breaking a problem up into parts', 'working backwards' from the proposed resolution (Petry, Mouton and Reigeluth, 1987), to multi-variate analysis or deconstruction to reveal unrecognised experiences, feelings and values.

## Graduate studies in distance education: freedom for resolution

The creative conflict approach also sets up a 'framework for instructional transfer' (Brooks and Dansereau, 1987). Students transfer skills and knowledge gained in their own areas of expertise and everyday lives to the creative resolution of conflict—a transfer which is highly useful to graduate students from diverse backgrounds and levels of training, for example, students in the Master of Distance Education program offered jointly by Deakin University and the University of South Australia. To promote this transfer, students at the graduate level require the opportunity to confront theory within the 'safe space' of collaborative group problem-solving—a heuristic exercise in which tutors and students work together to identify types of conflict and underlying values, and seek resolution to critical issues in distance education. A collaborative group may vary in composition and size: consisting, for example, of a graduate student and thesis supervisor; or combinations such as one student and a committee of consulting tutors with the supervisor; or a number of students offering peer group feedback under the supervision of a tutor. As a propaedeutic, this activity is a minimal interventionist approach which offers a safe, creative space where students can avoid 'a pre-digested resolution of conflicting viewpoints' and closure of the constructive, critical process (Harris, 1988).

## The creative conflict approach in practice: an illustration

A brief scenario of the creative conflict approach in postgraduate research activities may be illustrated by an inter-personal (inter-text) conflict, where students confront two differing theoretical positions—for example, one based on an empiricist and the other on an interpretive methodology.

### The setting

In a peer feedback group, either in a workshop or a teleconference situation, graduate students interact with their tutor or thesis supervisor to explore inter-relationships between the conflicting positions. Students begin by identifying the *type of conflict*, in this instance, inter-text conflict arising from two articles which deal with the same topic according to different methodologies. Students then proceed to determine the *nature of the conflict*: is it a 'problem' on how something is to be done? Can the problem be managed? Is it a 'dispute' over goals and interests which two or more parties perceive to be incompatible? Can the dispute be settled by negotiation, or is it a 'conflict' where people perceive their values are incompatible and where this perception governs their actions? (Tillett, 1990). Problems and disputes may be superficial manifestations of conflict as Tillett further observes:

> In such cases, an *underlying conflict* may be the cause of the superficial problem or dispute and, unless the conflict is addressed, the dispute or problem will continue (p. 4).

### The performance

After students identify the type of conflict and provisionally determine its nature, they explore the differing positions to locate any superficial manifestations of conflict, to comprehend the perspective, goals and values of the other party, and to reveal compatibilities which may lead to potential resolutions. Students may perform this exploration by *role-playing*. While individual students or groups represent the theoretical positions at variance with each other, the peer group and tutors provide feedback and take the part of mediator or negotiator. By experiencing the role of the 'other', students can begin to discover a linkage of values, and possibilities for resolution by a synthesis of the conflicting theories in the particular research context.[6]

## Creative conflict and graduate research: conclusion

As a basis for further discussion, this paper proposes creative conflict theory as a means to overcome the negative perception of conflict as a necessarily destructive process.The paper also considers how a positive perception may reduce the

'fight or flee' response and thereby promote greater access to critical confrontation with theoretical literature. Students in graduate research are encouraged to engage in 'interactive discourse' with educational theory by employing conflict resolution techniques; that is, communication skills to interact with texts, analytical skills to identify underlying social structures and types of conflict, and innovative thinking to resolve conflict in both theory and practice. In this way, the creative conflict approach can empower graduate students to engage in positive dialogue with the research community of Distance Education.[7]

## Notes

1 Good introductions to the discipline of conflict resolution are found in Burton (1973) and Webb (1986).

2 I am grateful to Philip Juler for the reference to 'argument as dance' from Lakoff and Johnson (1980).

3 Even the perception of problem-solving can be metaphorically restructured to help overcome the onus of drudgery and the stigma of being an intimidating exercise; for instance, the conceptual metaphor of 'problem-solving as a detective game' can serve as a motivating agent.

4 James W. Fernandez (1986) comments on the 'linkage' between persuasion and performance:

> Culture in its expressive aspects rests upon metonymic and metaphoric predications of sign-images upon inchoate pronominal subjects. These predications may be only persuasive, or they may lead to performance. These predications take place within an *n*-dimensional cultural quality space and function to give affective definition to pronouns which seek to be more aptly located within that space. The social situation and the disposition of the pronouns which would seek to act within it motivate their metaphoric predication, their 'taking of the other' (pp. 60-61).

5 A good compendium of the types of conflict may be found in the independent learning package by Tillett (1990).

6 In reading Lakoff and Johnson's book , I noted that their idea of an 'experientialist synthesis' complements the notion of an experience-based composite of objective and subjective 'truth' in conflict resolution:

> What we are offering in the experientialist account of understanding and truth is an alternative which denies that subjectivity and objectivity are our only choices. We reject the objectivist view that there is absolute and unconditional truth without adopting the subjectivist alternative of truth as obtainable only through the imagination, unconstrained by external circumstances. The reason we have focused so much on metaphor is that it unites reason and imagination. Reason, at the very least, involves categorization, entailment, and inference. Imagination, in one of its many aspects, involves seeing one kind of thing in terms of another kind of thing—what we have called metaphorical thought. Metaphor is thus *imaginative rationality* (Lakoff and Johnson, 1980, pp. 192–93).

7 I would be pleased to make contact with anyone else interested in this area of research and theory.

Chapter 17

# Distance education: targeting the primary producer and computer technology

**Robyn Pilcher and Ross Wilson**

## Background and overview

THE YEAR 1991 saw Australian primary producers faced with a greater degree of pressure than ever before and, as a result, they have suffered both socially and economically. This pressure has been attributed to the marked downturn in the Australian economy as well as to the significantly increased competition existing in the international primary production markets traditionally exploited by Australia.

Government, secondary industry, educational institutions and other bodies have made it clear that the adoption of computer technology by primary producers is necessary during these 'hard' times if they wish to become more efficient and effective business managers, improving both their individual business performance and international competitiveness, and therefore their social and economic well-being. Indeed, it has been suggested that without an increased awareness of how modern technology can help them, and without the adoption of that technology, primary production in Australia may well fall below that of their competitors and possibly in line with that of a third-world country.

On this basis, the authors felt that a more concentrated effort should be made to facilitate, possibly via distance education, the adoption and use of computer technology by primary producers. However, it was also realised that this entailed the assumption that such use of computer technology *would* promote the economic and social well-being of primary producers, an assumption for which the authors realised there was insufficient tangible evidence.

In particular, it was felt that insufficient information exists regarding:

- the attitudes of primary producers towards computer technology
- the degree to which computer technology has been adopted and used by primary producers already

- the reasons individual primary producers put forward for either adopting or not adopting computer technology
- how government, education institutions and other interested parties may be able to facilitate the adoption and more effective utilisation of computer technology by primary producers, should such adoption prove to be beneficial.

The need was therefore discerned to identify the role computer technology is currently fulfilling, and could potentially fulfil in the future, towards improving the efficiency and effectiveness of the business management practices of primary producers and, therefore, their social and economic well-being.

It was also felt that through identifying this role and associated aspects, it may be possible to identify educational mechanisms for increasing the awareness of primary producers regarding the potential benefits of computer technology. At the same time, any barriers to the use of computers could be identified and addressed. These points were recognised as being important to the various governmental and other bodies which see part of their role as facilitating the adoption and use of computer technology by groups such as primary producers.

The feelings outlined so far were reinforced through informal communication with interested parties and through discussions with academic colleagues. These sources of information revealed that primary producers and their families in isolated areas lacked both basic financial and computer skills and also any courses designed to provide such skills.

Since the original motivation behind this research project was to identify the real educational needs of primary producers in isolated areas, taking into account their social and economic circumstances, and to determine how these needs might best be met; it was necessary to find out whether computer technology is important to primary producers and if so would it, in the future, facilitate the achievement of the economic and social goals of the primary producer family to a greater degree than may be the case at present. Education today is characterised by increasing emphasis on the use of computer technology, but experiences during 1990 led the authors to the view that for people in isolated rural communities, especially older generation producers, computers are a modern technology for which they perceive they have little use.

During this time, it was realised that educators often design courses to meet what *they* perceive the needs of the participants to be. However, it was not unusual to find that such further education courses can easily fall short of the *participants'* expectations. Moreover, given that various education courses had been provided throughout New South Wales during 1990 and 1991, it was felt that care needs to be exercised to avoid overloading communities with a variety

of courses which do not meet the expectations of the primary producers, particularly with respect to their longer term requirements. Courses should be offered which will enhance the long term social and economic well-being of the primary producer family unit.

As a result of the various factors outlined, it was decided that research was needed into curriculum development and the implementation of distance education courses about the use of computers. Moreover, the research should take into account the long term social and economic well-being of the primary producer family unit.

## The survey and its findings

Based on the above considerations, it was decided to conduct a pilot survey of ninety primary producers, six computer software companies, seventeen country-based accountants, and six rural counsellors in isolated areas of New South Wales. The word 'isolated' in this context refers to remote, country properties which can be up to 120 kilometres from the closest town and which have:

- very few, or no educational facilities within 20 kilometres
- very few accountants within 40 kilometres
- very few rural counsellors within 60 kilometres.

The pilot survey was aimed at establishing:

- the attitudes of primary producers towards computer technology;
- the degree of computer technology adoption and use by primary producers;
- the reasons put forward by individual primary producers for adopting and using computer technology;
- the levels of assistance available to primary producers in isolated areas with respect to the adoption and utilisation of computer technology
- whether or not computer technology is meeting the expectations of those primary producers who have begun using it

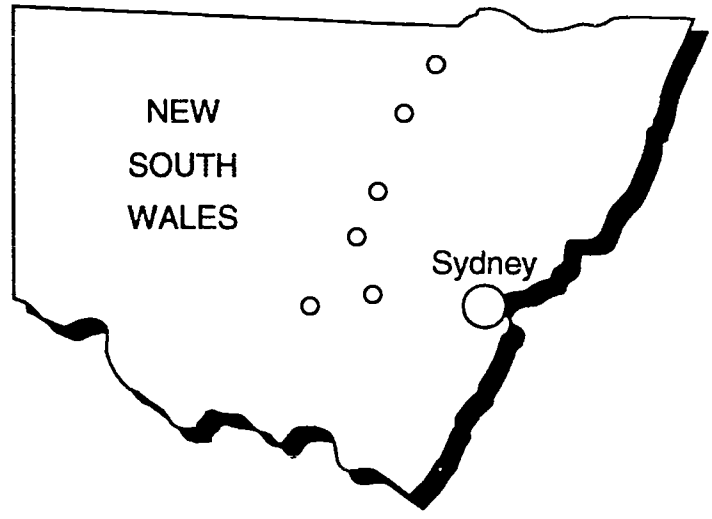
If the pilot survey provided positive responses to the above, the authors felt that they could then pursue their main objectives, these being to determine whether and in what ways the adoption and utilisation of computer technology assists the social and economic well-being of primary producers, and what would be the most effective means by which distance education could promote this.

## The survey questions

Questionnaires were mailed to ninety primary producers in geographically isolated rural areas of New South Wales (See Figure 1).

The areas concerned centred around the townships of Bogan Gate, Collarenebri, Condobolin, Lake Cargelligo, Nymagee, Ootha, Tottenham, Tullamore, Walgett and Warren.

**Figure 1 Representative locations of surveyed primary producers**




In addition to the ninety primary producers, appropriate questionnaires were also sent to six rural counsellors, seventeen accountants and six computer software companies located in the same areas.

The questions in the primary producer questionnaire covered a wide range of topics

In particular, questions were asked about:

- property size, ownership status, and enterprises operated
- views concerning the economic outlook
- importance of, and attitudes to, new technology in general
- computer ownership, reasons for ownership or non-ownership, and attitude to computer technology
- whether or not computer and software ownership had lived up to initial expectations
- level of computer technology understanding
- whether attitudes within the family towards computer technology gave rise to family conflict.

## The survey response rate

The number of responses, and the corresponding response rate, from the primary producers, rural counsellors, rural accountants and computer software companies are shown in Table 1.

**Table 1 Survey Response Rate**

| Respondents | No of Responses | Response rate (%) |
|---|---|---|
| Primary Producers | 39 | 43 |
| Rural Counsellors | 5 | 83 |
| Rural Accountants | 2 | 12 |
| Software Companies | 5 | 83 |

Due to the relatively poor response rate from the rural accountants, the reported findings below will concentrate on the primary producers and the rural counsellors, with pertinent information from software companies also being included.

## The survey findings

### 1 Primary producers

*Property size, ownership status, and enterprises*

- Property size ranged up to a maximum of 90,000 ha, with the majority of the properties falling within the 0 to 4,000 ha range.
- Of the primary producers who responded, 69% had purchased their properties, 26% had purchased a portion and inherited the remainder, 2.5% had inherited the whole property, and 2.5% had leased their property.
- Enterprises operated included wheat, barley, oats, canola, safflower, cotton, chick peas, field peas, sheep, cattle and pigs.

*Economic outlook*

Views about and attitudes towards the economic outlook were pessimistic, as would be expected given the current economic climate, particularly with respect to the short term outlook. However, the responses also included a significant degree of optimism and hope regarding the longer term outlook. Examples of the responses received are included in Appendix 1.

*Importance of, and attitudes to, new technology*

The adoption of new technology was considered to be important, particularly in order to maintain production efficiency and improve economic returns. A considerable number of respondents also commented that there was more threat to Australian primary producers from subsidies being paid to their overseas counterparts than from their own possible lack of new technology adoption. They could not perceive that an increased use of technology would improve Australia's competitive position in international markets whilst overseas primary producers were highly subsidised.

Appendix 2 contains examples of the responses received in relation to the importance of, and attitudes towards, new technology.

*Computer ownership and attitudes to computer technology*
Of the respondents, 46% owned a computer and, when asked to provide three reasons for its purchase, the aggregate result was as follows:

- accounting and financial analysis (59%)
- education (47%)
- record keeping (47%)
- budgeting and budget control (18%)
- word processing (18%)
- entertainment, including games (18%)
- reduce accountants fees (12%)

Of those who owned a computer, 47% indicated that the computer had lived up to their expectations, particularly with respect to aspects of accounting, education, budgeting and record keeping. However, 41% indicated that their expectations had not been met. Reasons put forward for this included.

- time consuming
- lack of training courses
- cost and suitability of software and updated hardware

Positive attitudes to computer technology were expressed by approximately 74% of respondents. Attitudes seemed to be far more positive amongst those who did not own computers, with descriptive expressions such as 'exciting, inquisitive, very interested', and 'fascinating and exciting', being used. Without further information from these people it is difficult to ascertain the reasons behind their attitude—perhaps it is their excitement for the unknown?

More examples of the responses received with respect to attitudes towards computer technology can be found in Appendix 3.

*Levels of both computer technology understanding and assistance available*
A small number of respondents indicated some reservations with respect to their level of understanding of computer technology. Typical comments were:

- pushing for greater understanding, keeping up with technology
- need a course on how to use it properly
- interested, but feel left behind in computer technology
- good idea if there is someone to use it

With respect to levels of assistance perceived to be offered for computer users, 41% said assistance was low, 31% said assistance was me-

dium, and 10% felt assistance was high. It was also interesting to note that 5.5% commented that assistance was available if one took the trouble to look for it.

*Family conflict and attitudes to computer technology*
So far as individual attitudes to computer technology are concerned, 82% of the respondents indicated that there was no conflict between family members, but 13% indicated that conflict does exist. The comments provided suggested that one or more family members have doubts regarding aspects such as time availability and ability to use a computer correctly.

**2 Rural Counsellors**

Of the rural counsellors surveyed, 83% responded to the questionnaire. However, it was somewhat disappointing to find that not all questions were answered, or else they were answered only briefly. Questions were asked about such matters as:

- How many of your clients are primary producers?
- Which member of the family do you deal with?
- What special problems are faced by primary producer families in isolated areas?
- Is pressure being placed on primary producers to upgrade their technology?
- Does computer technology assist the primary producer in running the property more efficiently?
- Do you feel that education should become more prevalent in rural communities in isolated areas?
- What role should education play as primary producers are expected to produce 'more and better' products?
- In what ways can educational institutions help primary producer families in isolated areas?

Selected responses were as follows

*Number of primary producer clients*
- 40% of respondents said they dealt only with primary producers
- 60% said that 95% of their clients were primary producers

*Member of family with whom rural counsellor deals*
- 14% dealt with the husband only
- 8.5% with the wife only
- 57% with the husband and wife
- 20% with the whole family

*Special problems faced by primary producer families in isolated areas*
As the authors are targeting primary producers in isolated areas, the types of problems that those people face, as perceived by the rural counsellors, were of particular interest. Some of the responses identified deficiencies in:

- information—not that it's not available, they don't know how to get it
- independent financial advice
- financial training and access to training

*Pressure for primary producers to upgrade their technology*
Seventy-five per cent of responses agreed that there was pressure being placed on primary producers to upgrade their technology. However, they did not necessarily agree that this was appropriate for the primary producers. Instead, they all agreed that some initial management and financial skills needed to be learnt before technology, in the form of the computer, was introduced.

*Would this assist the primary producer to run the property more efficiently?*
Eighty per cent of the respondents agreed that computer technology would, in the long run, assist primary producers with the efficient running of their properties. Nevertheless, promotion in the right way and emphasis on the applications of computer technology were seen to be important if the primary producers were going to accept computer technology.

*Role of Education*
Eighty per cent of respondents agreed that education would have to become more prevalent for primary producers in isolated areas. However, the general feeling was that education should be directed at increasing awareness of the requirements of the market place rather than at computer education.

One important point arising from the responses of the rural counsellors was that, with any kind of education, the primary producer seemed to have a problem, not with the course content so much as with how to use what had been learnt in order to achieve a better overall result on the farm. Evidently, the real educational needs of primary producers warrant further investigation.

## Discussion of findings

The pilot survey and consequent introductory paper is only the catalyst to a far greater information gathering and collating exercise.

Although all primary producer respondents saw the short term economic outlook as grim and thus their short term goals consisted mainly of the desire to stay afloat and retain their property, most showed the optimism and spirit Australian bushmen are famous for when expressing long term goals. Ninety-nine percent of primary producers wanted to stay with their property and either expand, increase productivity and improvements, or 'continue on an upward and forward trend in all directions'. Only 1% wanted to move away from farming and try to establish an easier life.

This was further supported by comments from software companies, which, although experiencing a severe downturn in sales due to the economic recession, found that the primary producers' attitude towards computer technology usage in the future was positive. One such comment was:

> I feel that there will be a large surge in demand at the end of the recession. This is based on potential client enquiries that just can't afford a computer at the moment.

The survey has also shown that business management and personal education are the main reasons primary producers put forward for the adoption of computer technology.

On the basis that there is a greater number of primary producers using computer technology, and that their attitudes towards computer technology are positive, one of the authors' initial objectives—that of determining whether, and in what ways, the adoption and utilisation of computer technology assists the social and economic well-being of primary producers—can now be pursued.

The survey has indicated that in many of the areas surveyed the levels of assistance available to computer users are low, and that the levels of understanding of computers and their outputs are also low. It would, therefore, appear that there is a definite need to make primary producers more aware of how to use their computers more efficiently and effectively.

The question which follows is: in what ways can this be facilitated by distance education?

The authors also found that many primary producers seemed to be unaware of how to access relevant information, whether it be in their own community or further afield. Organisations responsible for offering information to primary producers should be approached to determine whether or not they are aware of this criticism. Support systems are essential to primary producers in isolated areas, especially with respect to computers which are new and often rather daunting to the first-time user. Consequently, how to acquire assistance is extremely important.

## Where to now?

When researching whether a desirable method of study, incorporating relevant use of computer technology, can be achieved by distance education, three questions can be addressed:

- What is the correlation between the education level of the primary producer and computer ownership?
- Why do many primary producers find it difficult to adapt what they have learnt in a short course to their own situation?
- How can computers help to inform the primary producer about external economic factors which affect his primary production business?

With respect to the first question, surveys have been carried out which show that:

- More than 60% of the Swedish on-farm computer owners have the same higher education as the service agents and advisers (Ohlmer, 1991).
- Of 52 Canadian farmers using on-farm computers, 74% had education from college or university.
- The educational level of farm operators in California is an important factor—together with farm size—in explaining the adoption of computer technology. Of 115 on-farm computer owners, 75% had a bachelor's degree or graduate degree.

The second question arises from comments by primary producers which have been supported by rural counsellors. It would seem that although further education courses may convey the appropriate concepts, adaptation of these concepts to 'real life' situations can be somewhat difficult.

The third question can be addressed by observing that each person takes the limits of his or her own field of vision for the limits of the world. This seems to sum up the situation of many primary producers in isolated areas which creates a challenge for the researchers.

With respect to the social aspect of the project, the correlation between who utilises the computer and the role of the family in the farm office and in decision-making will be studied. Experience has shown that by becoming efficient bookkeepers, women in isolated areas feel they are contributing to the running of the farm which in turn increases their self-esteem. Now we have to see what role, if any, computer technology can play.

## Conclusion

Primary producers in Australia are traditionally conservative and, therefore, educators have thought that primary producers will approach computers—the unfamiliar—defensively and with considerable discomfort and uncertainty.

However, the responses to the questionnaires sent to primary producers, rural counsellors, software suppliers and accountants indicated a greater use of computer technology—and a far more positive attitude towards it—than that which the authors initially perceived.

As a result of the findings arising from the pilot survey, the original aims of the project will be addressed further by targeting a greater number of primary producers in isolated areas throughout New South Wales, Queensland and Victoria. Research into curriculum development and implementation of distance education courses, using computers, for people in isolated areas will also need to be conducted.

Given the primary producers' positive attitude and their optimism with respect to the future, it is envisaged that they will place increased emphasis on the use of computer technology. This would suggest that further education is required now and should be facilitated by educational institutions. Such further education should be aimed at meeting the educational needs of primary producers in isolated areas with respect to the adoption and use of computer technology, which may in turn assist their economic and social well-being.

## Endnote

This paper is a minor adaptation of one presented by the above authors at the *Agriculture, education and information transfer in rural Australia seminar*, held at the Murrumbidgee College of Agriculture, September 30 - October 2, 1991.

## Appendix 1: Responses to the question, 'How do you and your family see the economic outlook?'

- Bad
- Grim(3)
- Negative short term income—good long term outlook for fibre and meat products

- Sheep and wool very bleak for three to four years, also cash crops due to subsidy payments, cattle reasonable for two to three years
- Poor
- Very bleak (4)
- Hard years ahead of us
- Gloomy in the short term—small light at end of tunnel in three to five years (2)
- Bleak (2)
- Short term—gloomy, hopeful of a turnaround in the longer term
- Very bleak—next year is the big worry
- Not good at this stage—if commodity prices improve of course it will look brighter
- Not good at all—general costs of production and government charges are far too high, and with no end to the spiral being contemplated
- Grim—without off-farm income we would be doomed—we may be anyway
- Grim in short term, fair in long term
- Hard because of purchase of land in 1989, bad floods in 1990, and drought this year
- Very poor—only spending when absolutely necessary, known better times, they will return
- Grim—inability to meet loan repayments, forced back to full-time employment
- Grim—improvement likely in two years
- Very depressing in short term, better in long term
- Very grim for produce from any farming enterprises
- Miserable
- Hopefully lowest now, brighter towards 1992
- Bleak for the next three to five years, then improvement
- Very, very gloomy: costs are beginning to outweigh incentive in all aspects of farming
- Gloomy—hope none of my children stay in the industry
- Bleak in the short term, solid in the long term
- Not promising

## Appendix 2:
## Responses to the question, 'Has your attitude towards new technology changed with leading countries threatening to do better from primary production than Australia with the use of this technology?'

- New technology is of prime importance if we are going to survive in this changing world
- Trying to better quality production, eg. lean lambs -v- fat lambs
- Always had a positive attitude—Australia needs more manufacturing and value adding for our raw materials—wages too high for the productivity produced.
- Become too poor a nation to take advantage of new technology
- We are the most efficient farmers in the world—we lack marketing skills
- I think new technology is becoming more important in primary production, but I lack skills to use it—and I am too small a producer to pay for it at present
- Attending seminars, joining rural advisory groups, and updating on overseas grain prices
- Now using farm programs, Agri II, to improve farm management skills and productivity
- Need to be more aggressive in sales
- Modern equipment, better seed varieties
- Always believed should use new technologies to improve returns
- We have to maintain our efficiency to increase output, costs are killing
- Haven't changed—always willing to try new ideas
- Need to be up there with them
- Is it the technology or subsidies which help the overseas primary producers?
- Our technology is as good as anywhere—we depend on weather conditions first and foremost—also we do not have the subsidies of overseas rural producers yet we are expected *and* are producing a good product economically
- We must become more efficient
- Australia has the most efficient primary producers—other countries are highly subsidised
- The technology of overseas countries is not the main threat—their

subsidies are

- We must use available technology to increase productivity
- We must use technology to help efficiently compete against overseas subsidies

## Appendix 3: Responses to the question, 'What is your attitude to computer technology?"

Responses from computer users:

- Not only improves efficiency but also access to learning facilities
- Crucial to record keeping but lack of support
- Probably soon be obsolete, makes us more aware of financial position, saves time
- and tedious calculations
- Pushing for greater understanding, keeping up with the technology
- Useful if easy storage and input
- Need a course on how to use it properly
- In principle—in favour, in practice—not a high priority
- Favourable
- A must for the future
- Not always as exact as led to believe
- Glorified typewriter which will not make you any more money
- Getting better all the time

Responses from non-users:

- Efficient
- Positive
- Advised by rural advisers a. ' expense not worth it unless very keen
- Favourable, for storing and recalling information
- Exciting, inquisitive, very interested
- Interested, but feel left behind in computer technology
- Interested (2)

- Probably good but only as good as the information put into it—paddock book is far more important
- If could afford it would use in contract shearing business
- Good idea if there is someone to use it
- Would help a lot with budgeting, planning and record keeping
- Doesn't have any place in our way of life
- Fascinating and exciting—will purchase as soon as possible, and go to TAFE to learn use
- Could be of great value if could afford it
- Fully supportive (2)
- Being left behind
- Seems good
- Will be important in the future
- When finances allow, we will purchase
- All will have to become familiar in order to compete
- A good tool but need to know how to use, which to choose and be able to afford it
- Not essential for all businesses

Chapter 18

# Alternatives to residential schools: empowering students to succeed at home

**John Eiseman and Mary Jane Mahony**

## Introduction

WE BELIEVE THAT vocational education for mature students requires direct interaction between the learners and their working worlds—in this specific case, the Australian horticultural industry. To do this effectively students must develop their skills in information gathering, situation analysis and critical thinking. Our work is based on the principle of empowering the learner by providing flexible access to learning opportunities, building on prior knowledge and experiences, and enabling students to set the context for their studies.

Our philosophy is that the role of educators is to facilitate student learning through the provision of learning opportunities and the development of the skills needed to exploit such opportunities. 'Provision of opportunities' is defined in a context wider than the logistical issues of field trip organisation and/or on-campus provision. It is based on establishing a framework in which students can identify and use appropriate opportunities and situations which are within their contexts.

Our story is about taking these views and, through an iterative process of planning, practice and reflection, making a significant shift in our thinking on distance education provision. Our approach derives from action research, which is described by Kemmis and McTaggart (1988, p. 5) as being:

> *collective* self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own social or educational practices, as well as their understanding of these practices and the situations in which these practices are carried out.

At the University of New England–Orange Agricultural College (UNE-OAC) this process of enquiry has focussed on the theme of eliminating barriers to study faced by people wanting to learn in the area of rural and resource man-

agement education (Mahony, Napier and Morgan 1987; Morgan and Mahony 1989; Jones and Morgan 1989; Mahony and Morgan 1990).

This chapter describes an action research process toward developing alternatives to residential schools or other group activities in a course where the need for field visits and interaction is strong.

The developments described in this chapter are based on:

- interaction between the key content provider and the instructional designer with a view to improving the learning situation;
- the interaction between the course team with four successive groups of students enrolled in an introductory unit of study. Outcomes were sought at two levels—improvement of the learning situation for the immediate student group, and improvement of the unit for subsequent groups.

This project has made use of formal evaluation—in the form of written questionnaires and comparison of statistical evidence, such as completion and success rates—and informal evaluation in the form of anecdotal enquiry and participant observation and discussion, embedded in a loose action research and development program.

This really began with the arrival of new staff to work on an existing unit of study. These staff contributed a focus on evaluation and critical reflection to the unit which contributed to a desire for change. Minor changes were made on an intuitive basis for the 1988 course and, subsequently, the scope for reflection and change was broadened. Thus, although the formal, organised nature of the project only emerged later, its beginning was really in 1988.

## The context

UNE-OAC offers a range of external programs in the general area of rural management education and training. Two programs in particular, the Associate Diploma in Horticulture (ADH) and the Associate Diploma in Farm Management (ADFM) are taught to people who are already managers or people whose ambitions are to become such.

Both programs attract students from all Australian states and from overseas. The geographical isolation of many students, combined with the increasing economic hardship in rural Australia, makes compulsory participation in centralised, group-based activities—residential schools and tours—a barrier to participation.

This chapter focuses on the ADH course although developments reported have also been applied in the ADFM course.

Horticultural Management 1 (HM 1) is the initial foundation unit of study undertaken by ADH students. HM 1 has three broad aims:

- Introduce students to principles of management;
- Ensure students have an overview of the environment in which the horticultural manager must operate;
- Equip students with skills to source and acquire information and opinion from horticultural managers and others involved in the industry.

The horticultural manager is seen as an integrator of the biological, technological, financial, marketing and people systems involved in the production of horticultural products. Thus the core principles and skills of management must be established early in the course; this provides the framework and context for the more specialised units to follow.

**Delivery**

In some ways, UNE-OAC's distance education programs are conventional. The central component for any unit of study is a package of course materials (primarily print-based) designed to enable independent study. However, residential schools have been held since the inception of distance education at the College in 1978. Around 1985, there was a significant policy shift from the use of one compulsory and some other, optional residential schools to the use of what are called essential or supplementary activities. Students must complete essential activities, or, more specifically, demonstrate that they have achieved the intended outcomes towards which the essential activities are aimed. Implementation of this policy has meant more consideration of ways in which students can achieve those aims. At UNE-OAC the onus has often been placed on the student to propose and negotiate an alternative. This project focussed on supporting the process of alternatives to the residential school as part of unit design.

**The role of the residential school**

To appreciate the emergence of the alternative program described later, it is necessary to understand the role of the residential school in HM 1.

The first challenge at the residential school is to develop in students an 'eyes wide open' view of the horticultural industry. They need not only to understand how horticulture functions, and what the resources required at the farm and industry levels are, but also to develop their own perception of the overall position and outlook for the industry. Thus, the management environment

requires them to identify and analyse opportunities, threats, issues and problems pertaining to horticulture. This process is much more about reflecting on opinions and observations than collecting factual information. Students must develop their own perceptions and, more importantly, appreciate that this is a continuing process.

The second challenge for the residential school is to demonstrate and develop the processes by which students can obtain both factual information and opinions. While this is a short term goal contributing to the students' immediate academic success, more importantly as managers they have a need to be informed. In agriculture, managers are often relatively isolated from libraries, industry specialists, and the marketing and business sectors of the industry. It is therefore important for students to think beyond the immediate needs of their studies and to work towards developing accessible information networks relevant to both their short term and long term needs and location. Further, there is a need for students to recognise that people are a major resource and that obtaining information and opinion from others is an essential skill.

**How did the traditional residential schools work?**

Residential schools are currently held at the Orange and Lismore campuses and consist of two days of farm-oriented activities followed by one day of industry focus in the nearby capital city. These activities involve case-studies of particular farms and interviews with horticultural managers and others involved in the horticultural industry, together with small group analysis and reflection.

The residential school activities and the associated assessment tasks—which make up 80% of the unit assessment—require students to demonstrate:

- an understanding of how horticultural managers operate at both the farm and industry levels;
- an ability to identify the resources and analyse the management of specific horticultural businesses;
- their own articulated perception of the key issues and future outlook for horticulture.

At the residential school this is achieved through class case-studies of specific horticultural businesses which involve group interviews of the managers, visits to the sites, small group analysis and individual reflection through report preparation.

The challenge was to find an alternative approach which could fulfil the conventional residential school requirements. The search for an alternative to residential schools saw two approaches being considered, one information-based and the other process-based.

## The first approach: the information-based alternative program

Notions of distance education as providing equity of access and opportunity coloured our first attempts to plan an effective alternative approach to meet the needs of students unable to attend the essential residential school. Hence, we first worked from the basic assumption of providing the missed experiences using technology such as audio or video, that is, we considered how we could emulate the residential school at the student's place of study. Various possibilities were explored:

*Option 1. Video-recording of student fieldwork visits during the residential school.*

In this way the non-residential student would have the opportunity to experience the same horticultural businesses, although without the opportunity to interact.

This option raised various concerns. Given the need for good sound and visual quality, would camera and microphone presence diminish the experience of the residential school participants? This included concerns regarding shyness of students and of co-operators—that is, people who provide access to their industry for the students; the openness of industry cooperators, particularly with regard to financial matters; the slowing of the interview process to meet technical considerations to ensure a quality product, etc. There was also concern about delays for the non-residential students due to editing, copying and dispatch of tapes.

*Option 2. Pre-recording case-studies*

Pre recorded case-studies, using audio-visual media, would produce a better quality presentation given the opportunity for scripting and multiple takes. There would, however, be a diminished opportunity for student involvement and a problem of the materials becoming outdated. The latter is particularly of concern due to the dynamic nature of the issues for the horticultural industry.

It was determined that if this approach was to remain current and relevant, then regular revising of the material would be required. This was seen as a cost-ineffective. Furthermore, the student experience would be diminished due to the inherent passiveness of this approach.

## The second approach: the process-based alternative program

The short-comings of the information-based alternative package prompted us to reflect on the objectives of the unit and, to a large extent, promoted the articulation of the information networking and interactive objectives discussed earlier. As a consequence of the geographical spread of ADH students and the breadth of activities which are encompassed by horticulture, there has been a continuing demand by students to orientate assessment tasks and associated activities to meet their particular needs. These needs are primarily for relevance to their particular locality and/or to particular crop systems.

Consequently there has been a move towards self-directed learning. This educational approach is new to UNE-OAC and is not a general expectation for students at the Associate Diploma level. The response to this demand has been an increasing shift to providing students with a generalised framework and assessment objectives with the flexibility for individual students to build in the context they require.

This *personalising* of assessment by students has prompted the need for identification and development of individual resource networking and the skills to use these resources. For example, increasingly within the course, there is an expectation that students will locate and approach relevant cooperators. This not only requires communication skills but also the ability to appraise critically what they find.

Reflecting on student-driven change within the program posed the question: given that increasingly throughout later units in the ADH course students would need to use resources they themselves identified, then why not manage HM 1 similarly?

Prior to 1991, the alternative for students not attending the essential residential school was to:

- read the learning objectives of the unit;
- read the demands of the residential school based assessment tasks;
- determine how to complete the tasks, for example: locate farm cooperators, organise visits to fruit and vegetable retailers, and to central markets; and then, submit a proposal to the Unit Coordinator for approval and advice.

This alternative had two significant shortcomings. Firstly, both staff and students found it very time consuming, and invariably, student progress through the unit was considerably delayed. Secondly, for many students, identifying and visiting cooperators although time-consuming was not difficult. Students

experienced their main difficulties with the interview process itself and the subsequent analysis and report writing. It became apparent that these *new* external students needed greater process support to succeed in a self-directed approach.

## Implementing the second approach

Once we had moved to a process focus we re-analysed the objectives of the residential school, its program in the past and the unit assessment tasks using the new framework.

This re-analysis of the residential schools reinforced the need for process support. Reflecting back over recent years revealed that we had been increasing the component of the residential school devoted to planning for and reflection on the interview process. For example, greater time was set aside for small group preparation—key questions, the procedure to follow, etc. Informally, staff were emphasising the need for the class to be disciplined and well organised and interceding in the interview process to demonstrate interview skills and to ensure balance of coverage.

The aims of the new alternative approach were to:

- reinforce the main points in the study materials in the same way as is done at the residential school. The focus is on explanation and clarification
- provide guidance on how to work with industry cooperators
- pre-empt difficulties and give tips
- increase student self-confidence
- orientate students to the assessment tasks
- establish affiliation between the student, the staff, fellow students and UNE-OAC
- and to facilitate the development of interpersonal interaction skills in a management setting

The resulting alternative program comprised an audiotape and a teleconference.

### Why an Audiotape?

External students regularly indicated that a strength of a residential school was the opportunity to know the staff and to interact with them informally. This met a number of student needs including an increasing sense of affiliation with the

course staff, fellow students and with UNE-OAC. It reduced psychological distance and reinforced a sense of being part of a learning community. We decided that an audiotape would enable us to simulate some of that experience while providing informal, easily accessible commentary in a flexible form. Furthermore, as part of the instruction involved interviewing and listening skills, audiopresentation was an appropriate medium.

### Why a Teleconference?

The teleconference is an opportunity to provide more personalised clarification and tutorial assistance in *direct response* to students' questions. While this can also be done on a one-to-one basis, a teleconference was seen as a more efficient use of staff time. In addition, the teleconference is an activity in which students must relate to other people; that is, participate in a group experience.

### Performance and evaluation analysis

Student completion statistics and academic performance are presented in Table 1.

No significant difference was found in either the completion rate or the final marks between residential school participants and those undertaking the alternative program. There was also no observed difference in the performance of students within the alternative program group between those with horticultural experience and those lacking it.

**Table 1 1991 Data on Horticultural Management I students**

| | Number of enrolled students[a] | Number of completers | Percentage of completers | Mean mark as percentage | |
|---|---|---|---|---|---|
| Participated in residential school | | | | | |
| All | 60 | 51 | 85 | 77.7 | b |
| Undertook alternative program | | | | | |
| All | 22 | 19 | 86 | 75.6 | |
| • Those with prior horticultural experience | 12 | 9 | 90 | 72.5 | c |
| • Those without prior horticultural experience | 10 | 9 | 90 | 77.0 | |

[a] At HECS date.

[b c] No significant difference at 95% confidence.

We conclude that new students with little prior knowledge of horticulture can satisfactorily meet the unit's learning objectives without the residential school experience. Furthermore, these students exhibit a similar breadth of performance to that of students attending the residential school.

All students undertaking the process-based alternative program were sent an addition to the standard unit evaluation survey to gauge the student perspective on the effectiveness of the alternative program. Of this group, 15 responded (68% response rate). An overwhelming majority of students found the audiotape component essential or helpful. The students saw the teleconference as being less important with only 33% rating it as essential. Of the respondents, 67% would still have completed the alternative program given what they knew, in retrospect, about it.

Frequently mentioned benefits of the alternative program included:

- less disruption of home life and job
- reduced costs
- students could enrol late to complete the unit
- progress in the course was possible despite their inability to attend residential school

Responses to the question regarding the biggest difficulty faced included:

- studying alone
- knowing whether one was on the right track
- understanding the assessment questions
- lack of communication with other students
- locating cooperators and undertaking the *first* interview

The responses to the general survey sent to all students showed a similar breadth of responses in both the residential and non-residential groups.

Presentation of the unit in 1991 was more satisfying to the Unit Coordinator. All students were supported in a structured and organised way. Telephone and other contact by students undertaking the alternative program was reduced compared with previous years.

## Some issues

The development of a supported alternative to the Residential School aims to provide greater equity of opportunity to meet the unit's objectives. The Residen-

tial School and the Alternative Program are not, however, identical. The differences are listed in Table 2.

**Table 2 Comparison of conventional and alternative approaches**

| Conventional residential school approach | Alternative program approach |
|---|---|
| Focus on the learning *group*. | Focus on the *individual* learner. |
| More institutional resources devoted to logistics of providing the case study opportunities. | Individual learners devote more of their personal resources to logistics. |
| Cooperators experience one visit by a group identified clearly as students. The visit is facilitated by a staff person. | Cooperators may experience more than one visit by individual students who may be less skilled at interviewing people. |
| Students and staff have the opportunity to interact over an extended period. | Students and staff have less opportunity to interact. |
| All students use the same horticultural firms for their assessment tasks, and can take some descriptive details as given. | Students use different sets of horticultural firms as the basis of their assessment tasks and must provide sufficient descriptive detail to ensure the marker can picture the situation. |
| Staff members can intervene if necessary to bring a session back on track and/or to ensure that all relevant areas have been addressed. | Individual students are totally responsible for the success of their cooperator sessions. |
| Students who are shy, or lacking relevant knowledge and experience can 'piggyback' on the activity of the more experienced and outgoing students. Their own experiential learning, however, may be minimised. | Students must rely on themselves and the network —of other students, family and friends, colleagues, industry contacts—which they themselves develop. |
| There is opportunity for immediate feedback to the group on the thoroughness of their interview performance. | There is no opportunity for immediate feedback to the individual student on the thoroughness of the session. |
| There is a confined time for interaction, determined by a schedule of activities. | A more flexible time span is available. |
| Students work within the context determined by case studies selected by staff. | Students have the opportunity to select the context for their studies and thus have greater opportunity to target their personal needs and interests. |

For some of the points raised in Table 2 the difference may not be significant while in the case of others further reflection is required. For example, with regard to the student experience, the lack of immediate feedback to students on their cooperator sessions may be a telling one. With regard to staff experience, there can be a greater marking load when assessment tasks are individualised as in the case of the alternative program.

Since 1988, we have changed our views about the essential aspects of HM 1, and this has been reflected in the changes to the educational approach. These changes resulted from the reflective interaction over time among the 'key players' in the educational situation.

Residential Schools can be an important learning activity within the provision of external studies programs. They should, however, be viewed as an option—one strategy for achieving the stated objectives. The future model for distance education demands that barriers to study through an inability to attend essential campus-based activities must be considered at the time of unit design and preparation. Educationally supported alternatives to residential schools need to become basic components of learning packages.

For HM 1 the key shift in thinking was the recognition that the real need was for process rather than content support. Overall, indicators suggest that some success has been achieved and that the direction of development is appropriate.

Our work is broadly based on empowering the learner, a perspective which has been widely addressed in the literature of adult education. Our approach is in many ways a reflection of the model presented by Garrison and Baynton (1989) who argue that control is composed of three major dimensions: independence, power and support. In this model independence is the freedom to make choices without external influence or restriction; power is the ability or capacity to take part in and assume responsibility for the learning process; and support is the resources that the learner can access in order to carry out the learning process.

In the context of HM 1 empowerment is about equipping students with the confidence and skills to manage their own learning experience within the framework of the unit's objectives. In doing so students have the opportunity to focus their studies in a context of particular relevance to their needs.

Empowerment is also about reducing dependence on the resources of the institution through encouragement of network building within the individual's locality and interest group.

## Acknowledgement

We would like to acknowledge the helpful comments of Christopher K. Morgan and Neil Jones during the development of this paper.

Chapter 19

# Reflections on team research in distance education

**David Kember, Tammy Lai, David Murphy, Irene Siaw, Julianne Wong and K S Yuen**

## Introduction

THIS PAPER TRACES the three year history of a team of distance education researchers. Although some detail of the project undertaken will be given, the main emphasis is on the team itself, how it came about, how it worked—and didn't work!—and what it meant to each of the participants. The aim is to reveal the manyfold benefits—and the problems—of a team approach to research, through the experiences of the participants. Our claim is that the establishment of a team not only led to a creative and productive environment for research, but also contributed significantly to each individual member's professional growth.

This issue of professional growth, especially relating to research and publication, is an important one. Currently accepted avenues of development in this area, including research methods units in coursework degrees and research-based higher degrees, do not appear to be particularly effective, as 'the median number of scholarly publications for even the most prolific discipline like psychology is zero' (Boice and Jones, 1984, p. 567). This rather sobering conclusion is just as relevant to distance educators as it is to other academic staff. Perhaps even more so, as for some years rather pessimistic conclusions have been drawn on the state of research in distance education (Minnis, 1985). Despite some recent progress (Calvert, 1990), it is doubtful that the median number of publications in distance education has risen above that for psychology. So, we all need reminding that:

> ... teaching and publishing are symbiotic, that each grows and profits in excellence from the practice of the other. Plainly, excuses for not publishing, no matter how persuasive, are unacceptable. Faculty members should perform well in both areas or they are not fulfilling their mandate (O'Neill, 1990, p. 60)

We view our experience as an alternative, and in our case more effective, avenue of professional development as researchers.

## Forming the team

It is rare to find more than two names given as authors of research articles in distance education. This could be claimed to be a little surprising, especially as distance educators have a penchant for working in teams. So we find ourselves, as a research team of five or six members, as something of an oddity. Because we are a bit different, we believe that it is instructive, both for ourselves as well as others, to attempt to document our history, our group interactions and policies, and our theoretical and practical deliberations. So, then, how did we begin?

**David Kember**
Shortly after I arrived at the Hong Kong Polytechnic I was asked by the section head of the Educational Technology Unit (ETU) to consider ways of promoting research within the section. Her suggested format was workshops on research methodology. On reflection, this approach offered limited prospects as all members of the section already had higher degrees and had taken various research methods courses. Why would my workshops turn them into prolific publishers when substantial courses had not been productive?

I had had some success in my previous two institutions in starting individual colleagues on the research and publications trail through participation in collaborative projects. There could be all sorts of unimagined differences between projects with one and projects with many, but it seemed worth a try. So I suggested the idea of starting a project proposal and inviting others to join in. Hopefully, in the long run, participants would develop sufficient experience and confidence to be able to initiate projects of their own.

The proposal I started developing was based on testing a model of drop-out from distance education courses I had developed in Australia. It seemed to be a suitable proposal because the initial steps were essentially evaluations of courses, but it built towards more theoretical perspectives.

And so work got underway. An initial group of three members started on the drafting of a research proposal. Some of the aims of the project were to :

- gather information on the ways in which successful distance learning students in Hong Kong integrate study with work, family and social commitments
- investigate whether the study package, the learning system, the tutorial system and the administrative system offer optimal support to the student
- develop guidelines and recommendations for the operation of distance learning courses in Hong Kong

- further develop and, if necessary, modify for Hong Kong conditions a model of student progress and drop-out from distance learning courses
- involve ETU staff in a major research project to develop both expertise and a climate for evaluative research in the Unit

The benefits of having a mix of local and expatriate staff became immediately apparent, as the local member was able to search the local literature for possible related material. As the proposal came together, two more local staff members joined the team, which was able to get departmental backing for its work. Reasons for joining the group were mixed:

**Julianne Wong**
I remember David coming to see me about the project. He was concerned about whether the funding would be approved, and as software research and information gathering were part of my job, he thought that I could help. I was happy to join, though worried about how much I could contribute—it was an opportunity to extend my experience—I was also thinking about enrolling for some further higher degree work.

**K S Yuen**
I'd recently completed the research for my PhD, and thought that some of my experience could be of help. Much of my own work had been qualitative, working with maths students on their problem solving strategies. I was looking forward to helping with the qualitative part of the project.

**David Murphy**
It seemed a good idea at the time—and still does! I like joint projects, whether it's developing materials, writing papers or whatever, and so I was keen to take part.

The group finally became a functioning reality when the proposal came back approved by the Polytechnic research committee.

One of the next major steps was the recruitment of a research assistant. This can be difficult in Hong Kong, and from the experience of others we were aware that it might be difficult to find a suitable person, and, even if we did, they may not stay for the duration of the project. Three members of the team were on the interview panel which met with a few short-listed candidates before making a decision. We were lucky. Not only did we get an excellent person to work with, but she has also stayed with the project over the last three years. What were her feelings, though, at the time of her recruitment?

**Irene Siaw**
I was nervous. The interview was at 9:15, and I think I was the first among a lot of applicants. For most jobs in Hong Kong with private companies, there will be only one or two people doing the interviewing. But this time there were four people—it was a surprise. Three were from the team, and I remember K S asking me why I thought I should be given the job. I also had to do a test, a translation from Chinese to English. I remember asking what format I had to write in, and Tammy said that any would do.

It took some time to be offered the job, and when the call came from the Polytechnic, I had just started another job with another company. So, I refused the offer. But very soon after, I realised that my new job was no good, so I phoned the Polytechnic to see if the job was still on offer. Luckily, it was.

## Course evaluation

So, the team was finally complete, and the real work could begin. As a starting point for the project, we chose to evaluate a number of distance education courses in Hong Kong—offered by both local and overseas institutions. An aim was thus to glean information about the effectiveness of such courses in terms of their suitability for Hong Kong students and their effects on such learners. This strategy would thus act as a bridge between existing evaluation activities and more adventurous research goals. It also meant that we would be using both qualitative and quantitative methods, which would widen the experience of our team members.

A major task was the development of a questionnaire, to be administered to a large number of distance education students in Hong Kong. Concurrently, a schedule was prepared for a smaller number of semi-structured student interviews.

The choice of the first distance education course to study was easy, as the Polytechnic had initiated its first such project. We realised early on that there would need to be some kind of incentive for departments of the Polytechnic or outside organisations to give us access to their students. So, for each course we studied, we planned to produce confidential reports to go to the organisers based on our results. It then became their choice whether or not to make such findings public. For the Polytechnic course, this permission was not a problem, though some organisations later in our project needed a little more cajoling and convincing of our intent and that participation was in their interests. As is often the case, contacts that group members had with others involved in distance education

proved invaluable, both at this time and later when some members moved to new jobs in other institutions.

## Meetings

As we went along, though, how were our meetings conducted? How were decisions made, and who decided who did what?

The meetings have now been taking place reasonably regularly for nearly three years. They usually don't last particularly long—somewhere between half an hour and an hour and a half. They are usually quite relaxed, with an air of open discussion—certainly there is no pontificating or any overblown sense of mission or grand design. Members get on well, and there seems to be a kind of unwritten acceptance of our differences in backgrounds, skills and abilities. A brief agenda is usually prepared by the project leader, which helps to prevent the proceedings from meandering.

When tasks are to be distributed, we seem to naturally fall into the role for which we are most suited. One notable, partial exception was the split-up of the team into halves, one half to concentrate on the quantitative aspects and the other to work on the qualitative results. The two team members with higher degrees in mathematics and statistics both preferred the qualitative work, though agreeing to make themselves available when their skills might be required.

> **K S Yuen**
> I found the meetings purposeful and to the point. I enjoyed coming to the meetings, even after I left the Polytechnic to work for the Open Learning Institute. My departure did pose a communication problem—I couldn't meet other team members on a daily basis, as in the good old days. I often had to be reminded of meeting times and to remember to submit the portion of a paper that I'd promised to work on. Also, during meetings, I had to be briefed on discussions among other team members when I was absent. Sometimes, meeting times had to be changed because of my commitment to my present job. However, I don't think I've missed a meeting.

Another feature of our meetings has been the opportunity to have visitors share in our discussions or present their own viewpoints and findings. We are lucky in Hong Kong, in that there is a steady stream of academics from a great variety of persuasions passing through, many of whom have been willing to meet with us. These opportunities have provided great stimulus to our work, through dialogue and discourse with such differing notables as Ference Marton and Herb Marsh.

## Leadership

The importance of effective leadership within a group such as ours has long been well recognised and acknowledged (see, for example, Fiedler, 1967, 1977; Strube and Garcia 1981). As the initiator of the group, David Kember became its leader, and has continued in this post without challenge from the members. What, though, are the members' attitudes to his style and abilities, and what is the leader's attitude to his role?

**Tammy Lai**
Throughout the two years of group experience with David, the most impressive quality I have recognised is his consistent ability to initiate themes throughout every stage of the project development. His large reservoir of academic ideas have been inspiring and are valuable inputs to the project. I have always been amazed by this particular quality of our research leader and so have no problem in accepting him as our legitimate leader. I also recognise him as an emergent leader who has earned his informal status gradually over time through a continuous demonstration of superior abilities and attributes.

**David Murphy**
David is well suited to the role of head of a research team. Basically, he's been the mainstay, keeping the project moving without dominating or dictating to the group. This rather low-key approach has worked out nicely, giving each of us a good measure of flexibility and choice as the project unfolded. It also means that the meetings are relaxed and friendly, while at the same time not time-wasting.

**Irene Siaw**
Having now worked with Dr. Kember for three years, I admire his leadership skills. I've learnt a lot from his research expertise, especially in the area of distance education. We've all liked the group and have had no great wish to leave, even though all team members—except the captain—have now changed their jobs. So far, this has been the longest I've ever stayed in a job. If I hadn't had a boss like Dr. Kember, I don't imagine that I would have stayed so long in a temporary post.

**David Kember**
The Polytechnic bureaucracy required one name as a project leader, so that they would know who should sign expenditure forms. However, I felt that the project would only be useful as a staff development exercise if it was a genuine collaboration. So, decisions were therefore made by consensus. Looking back over the project, I suspect I have had the strongest influence over its direction, as the others tended to

call upon my experience and expertise when there were difficult decisions to make. However, we took a number of major twists and turns in direction at the suggestion of other participants.

## Writing policy

We were also keen to publish our progress, and so quite early in our research started putting together papers for a couple of conferences. Yes, we all in some way contributed to the papers, which obviously then needed some final shaping due to differences in writing style and for overall coherence. One aim was to have the forum to present our ideas to our peers to invite some feedback on what we were doing. Imagine our disappointment, then, at the Annual Conference of the Hong Kong Educational Research Association, when our audience was hardly bigger than our team of presenters.

A policy concerning author names on papers, including the order, was needed for our publishing efforts. There were no particularly strong or opposing views amongst team members. After a brief, amicable discussion, the decision was that the names of all team members would appear on the publications in alphabetical order. Not only did this policy recognise the variety of ways that members contributed to the project, it put pressure on all of us to be involved in the writing process.

**K S Yuen**
The meetings also served the purpose of preliminary review of first drafts of the papers of the research team. Members took the matter of commenting on the drafts very seriously. At the meetings, writers for the relevant parts of the papers had to defend their work, and there was occasionally strong discussion and argument. Normally it took three or four drafts before arriving at the final version. So in a sense, the papers were reviewed by several assessors before they were sent for publishing. This was one guarantee of the quality of the papers.

With hindsight, the decision to have a clearly agreed policy for names on publications is important to the harmony and collective effort of a group project. We are aware of other, smaller collaborative teams without such a policy, where there has been considerable tension each time a paper has been produced.

The decision to put all names on all papers in alphabetical order has probably contributed to our sense of being a team. From an early stage, we recognised that we would have to accept that a paper was the result of a range of contributions, including making arrangements, gathering data and analysing results, rather than just the process of writing itself.

The policy put pressure on us to contribute equally. For potential participants who are unsure of their ability to engage fully in a project, such a policy may deter them from joining, when a minor, largely observational role might be of benefit to their professional development. In the case of Julianne, as she later mentions, this may have contributed to her decision to leave the group when she left the institution.

Having a clear policy concerning names on papers may eliminate arguments at one level, but can introduce alternative tensions if individuals appear not to be making an equal contribution. This potential problem has been compounded by the pressures on those who have taken on new roles and responsibilities during the past three years. There have been times when, at least implicitly, the degree of commitment to the project by individuals has been questioned by the remainder of the group.

## Progress, paradigms and problems

We would argue that one of the main reasons that our research has continued and progressed is our adherence to pragmatism and flexibility, especially in relation to methodological and paradigmaic issues. In fact, we would have to admit that it was some months into our work before discussions of paradigms entered the agenda. The main reason for this initial lack of foundation building was probably the history of the project—the research was based on already established work, and so started out as an extension of previous findings.

However, once the project started to grow and branch out in a variety of directions, we realised that such discussions were a necessary part of our deliberations. So,we pursued our investigations of paradigms and methodologies vigorously until we felt that we had created a solid and justifiable theoretical foundation for our work.

> **David Murphy**
> I'd been drafting a doctoral research proposal at about the time of our deliberations on theoretical foundations, and so found it helpful to be engaged in team meetings discussing this aspect of our work. As well as contributing, I think we all learned something at the time, and our progress in this area led to a clearer vision of what we were accomplishing in the student interviews. It also led to our first journal article, on naturalistic evaluation.

The above comment—implicit links between research and evaluation—indicates our orientation to the close alliance we perceive between research and practice. Further, our growing acquaintance with the ideas of critical reflection led us to agreement with the:

> ...notion of a community of researchers and practitioners to engage in critical reflection, so as to draw research, theory and practice into closer allegiance. This approach has the potential for integrating the view of research as critique, with studies which have origins in the qualitative-illuminative tradition. The sort of research agenda for distance education which is derived from this basis looks very different from what is the 'dominant paradigm' derived from educational technology (Morgan, 1990, p. 18).

This perception of ours, along with the comments of a visitor to our group—who thought that the author list on our publications looked like alphabet soup—led us ultimately to reflect on our group processes and to initiate this contribution to the RIDE '91 Seminar.

Our acquaintance with critical reflection naturally also led us to the work of Habermas (1970, 1974, 1979) whose ideas have been particularly influential upon many areas of education in recent years, particularly the sociology of education. Hence we read with interest of critical social science, the aims of which are to reveal an awareness of how goals and purposes can become frustrated or distorted, and to suggest how the impediments might be removed, through a process of self-reflection. Habermas claimed that it was only through discourse that did not suffer from non-democratic constraints that a rational consensus could be reached.

Our flexibility and pragmatism regarding method and theory then became a concern as to whether what we were doing conflicted with the beliefs of Habermas. None of us can claim to be expert in his writings, but the statements of others closer to his work gave us some reassurance. In particular, Ewart (1991) has recently stated that:

> In the reification of Habermas in education, it must be clearly understood that Habermas does not denigrate empirical-analytic or interpretive sciences. He only denigrates their universalistic claims to truth. Empirical-analytic, interpretive, and critical sciences all produce valid knowledge, but they do not produce the same kind of knowledge...critical social science requires the mastery of analytic and interpretive sciences, not the exclusion of them (pp. 375-376)

Such conclusions did at least go part of the way to convincing us of the legitimacy of our reflections, both in the process of our research and in this analysis of our work as a group. Group-related issues were also a focus of a contribution of Smulyan (1987), who examined the collaborative process of an action research team. The experience of that team in terms of the order within the process was similar to our own, though perhaps for different reasons.

> ...characteristic of the research process was the team's tendency during year one to work on more concrete aspects of the research, such as designing data collection tools, before they had clearly determined more abstract parameters of research question and design (p. 54)

Further, our experience has not in general reflected the phases in its processes reported by Smulyan. For example, we did not have a period of establishing trust within the group, perhaps because we were practically all well known to each other before we started. Moreover, there has been no challenging of the group leader, again for reasons mentioned here and above. On the other hand, we would probably agree that there has been a 'shift in emphasis from interpersonal to task related concerns and activities over the course of the project' (Smulyan, 1987, p. 49). We also agree that, for our team members, the process has led to:

> ... confidence in their own ability to identify, confront, and solve...problems. Through participation, they became more familiar with research language, methodology, and design, a familiarity which they felt made them better consumers of educational research and more skilled educational researchers (Smulyan, 1987, p. 55)

But what about the problems we've encountered along the way? What have been our difficulties, disputes and stumbling blocks? So far, this contribution may read something like a forum for mutual admiration. Does it all seem a bit too good to be true?

Well, we're afraid that it *is* true. We've tried hard to dig up some major controversy that would make for more fascinating reading, but have failed. In fact, our 'major' problem, already alluded to by KS in his comment on meetings, has been our difficulty in getting him to meetings and keeping up with his obligations. This tendency has actually become more of an amusement than an irritation or annoyance. The tensions associated with ensuring equality of contribution have been discussed above. The other major problem we have had to deal with—the departure of group members from Hong Kong Polytechnic—is discussed below. Apart from that, any problems have tended to be technical in nature, such as our efforts to come to grips with Lisrel, a sophisticated statistical package.

## Research at a distance

At the beginning, all six members of the team were staff members of the Hong Kong Polytechnic. However, since then, individuals have departed for other institutions and/or other countries. It might seem presumptuous to say so, but we'd like to imagine that their involvement in the project played at least a small part in their securing advancement. On leaving the Polytechnic, one member decided to leave the group, while the other two were definite in wanting to stay associated with the research. What were their individual reasons for their decisions?

**Julianne Wong**
I had begun to feel that my contribution to the project wasn't as much as I would like. Work pressures within the ETU, coupled with my personal agenda and my departure for CPHK, all aided my decision to leave the group. As well, part of the reason for my joining had been in case we were unable to get the funding for a research assistant. However, we did get the funding, and so my role wasn't as vital as it might have been.

**K S Yuen**
Because of my departure from the Polytechnic, I was at something of a disadvantage, because of my separation from the rest of the research team. However, with just a little extra effort, there haven't been any great communication difficulties. Travel time between my present and past institutions is only about half an hour, telephone calls are free in Hong Kong, and so is the usage of facsimile machines for the exchange of written messages.

**Tammy Lai**
When I left Hong Kong Polytechnic, there was no definite and formal arrangement as to whether I should or could stay in the team for various personal as well as institutional reasons. Basically, my intention was that if I could stay with the group, I would be able to develop my professional and research competency and continue to pursue a rewarding academic activity. Adding to this is the personal curiosity and interests in the findings about our distance learners in Hong Kong.

In November '90, when I returned to Hong Kong for the first time in six months, some roles and division of work issues were clarified and I was thrilled—I thought they had forgotten me and left me in Oz—to remain in the group as a distance member to finish our 'unfinished affairs and relationships'.

## Individual perspectives

To conclude our deliberations, we feel that it's probably best to allow some of our members to provide brief individual summative assessments of the project, with the last word left to the group leader.

**Tammy Lai**
Remaining in the group has meant benefits, commitment as well as problems. The team experience I have gone through with the group has been extremely valuable and I have learnt a lot from each of the members. Remaining in the group offers me further opportunities to

engage in an academic activity which is also relevant to my present work in a similar environment. Shortly after I took my new job here in Australia, a similar research proposal was presented to my present institution and an extension of the Hong Kong research programme is now being conducted back in Oz.

Also, although our tasks stayed more or less as they originally were, the process of achieving these goals had to be modified to accommodate this distant member. After trying different methods of communication, we found the fax machine to be the most cost-effective and efficient device in facilitating our exchange of ideas and thoughts.

Actually, experience has shown that our problems of communication do not lie with technology or infrastructure—I see that it lies more with one's attitude and commitment to a project. I must confess that every time I received manuscripts, transcripts or other related information from the group in Hong Kong, I was very anxious to respond immediately. However, every time I turned on the computer, intending to put something together, there were always other urgent local matters coming up, drawing my immediate attention from the task. I guess this experience is very similar to an academic lecturer who has to deal with both on-campus and external students. Those who appear physically in front of you will be attended to immediately, while somebody at a distance will always be given a lower priority. At times, this delay in responding made me feel very guilty and I wondered if I should stay in the group. I recognise that the struggle to respond and contribute to the group tasks without delay is possibly the greatest concern for a distance member in a research team.

**K S Yuen**

The success of a joint research project carried out by members of two different institutions depends a lot on the relationship between the two institutions. Academic institutions are often 'friendly' competitors, and senior management may not welcome such co-operation, for political reasons. It was fortunate that there was no such hostility between the two organisations in question; such co-operation was actually encouraged by the senior management.

There were mutual benefits. The research team found new bodies to take part in the survey, which made the research more representative of Hong Kong distance learners. At the same time, the OLI found the research findings useful for the Institute's operation. The OLI's support was illustrated by an OLI-sponsored distance education seminar in February, 1991, at which the research group was invited to present a number of papers.

**Irene Siaw**

I was glad to be offered this job as Research Assistant—later upgraded to Research Associate. Before joining the Polytechnic, I'd been in several jobs, each of which didn't last more than 6 months. This position has given me the opportunity to explore educational research and develop my skills in the application of statistical methods. Here I've come to a clearer realisation of my career path, and also decided to pursue a higher degree qualification through distance education.

Getting back to the project, the part I found most interesting was the interviews with the students—I've learned how they feel as distance learners who have to cope with busy full-time jobs. On the statistical side, I didn't have any problems handling the data analysis with SPSS. However, I am disappointed that we haven't been so successful with the very sophisticated Lisrel package. My limited knowledge and lack of availability of Lisrel specialist support from the computer centre are the main reasons for what I feel has been a failure on my part.

Anyway, I must say that I've enjoyed the job very much, and hope to stay in the group even though I've recently changed institutions.

**David Kember**

As one of the project's aims had a staff development focus, it is important to reflect upon the project's effectiveness in this respect. It would certainly be possible to claim that all of the participants now have more publications to their names. A more acid test is whether the team members subsequently initiate successful projects of their own. As the time frame between the genesis of a project and the publication of results is inevitably lengthy, final judgement according to this criterion must wait. The signs, though, are promising; Tammy has started a project at the University College of Southern Queensland, in Australia; KS has initiated an evaluation programme at the OLIHK; and David Murphy is well into his PhD.

By another staff development criterion that was not envisaged, the project has been an outstanding success. Four of the five who joined me at the start of the project have already left the Polytechnic for—presumably—better positions, and the fifth leaves within a few weeks!

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