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Characteristics of a supportive context for distributed learning: a case study of the implementation of a new degree

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Characteristics of a supportive context for distributed learning: a case study of the implementation of a new degree

A thesis submitted in partial fulfilment of the requirements
for the award of the degree

Doctor of Education

from

University of Wollongong

by

Geraldine Lefoe

M.Ed, B.Ed (Woll), Dip.T. (Prim) (WIE)

Faculty of Education

2003

Certification

I, Geraldine Lefoe, declare that this thesis, submitted in partial fulfilment of the requirements for the award of Doctor of Education, in the Faculty of Education, University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. The document has not been submitted for qualifications at any other academic institution.

Geraldine Lefoe

September 2003

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Abstract

In 2000, the University of Wollongong opened a new campus and two education access centres on the South Coast of New South Wales, Australia. The Faculty of Arts implemented a new degree, the Bachelor of Arts (Community and Environment), as part of this initiative and the first year of implementation of this new degree is the focus of the study. The purpose of the study was to inform policy and practice at the University of Wollongong and to contribute to the small body of research in the area.

A qualitative case study approach was used to investigate the experience of teaching and learning in this context. The broad research question was: *What are the characteristics that could constitute guiding principles and strategies for a supportive context for distributed learning?* There were two sub-questions for the study: (1) What were the perceptions of the students, tutors, and subject coordinators in the Bachelor of Arts (BA) program of teaching and learning in a distributed learning context? (2) What organisational factors promoted or constrained teaching and learning for students and staff in a distributed learning context? Data was collected through observations, interviews, focus groups and subject surveys, and from records and documents of the institution. Data analysis involved determining the themes, which the researcher interpreted to determine the lessons learned and to make recommendations for policy and practice.

The study indicated that the distributed learning context is affected not only by the local implementation of teaching and learning, but also by the context of the wider university. The study revealed the need for an institutional response to the distributed learning context with documented procedures and policy developments to reflect the changing needs of the staff and students. In addition, the increased workload of academic staff implementing such initiatives needs to be acknowledged and rewarded through these changes. The study provides recommendations to improve the implementation process during subsequent years to ensure the sustainability of the initiative. In addition, a preliminary framework has been developed to identify the characteristics of a supportive context for distributed learning. The study may also have relevance to other institutions embarking on similar ventures, and areas for future research are suggested.

Table of contents

Certification	i
Acknowledgements	iii
Abstract.....	v
Table of contents	vii
List of tables	ix
List of figures	x
Chapter 1 Introduction to the study	1
1.1 Introduction	1
1.2 Background	2
1.3 Research strategy.....	7
1.4 Context of the study	8
1.5 Roles of the researcher	10
1.6 Research questions	10
1.7 Significance and limitations of the study.....	11
1.8 Structure of thesis	12
Chapter 2 Review of literature	13
2.1 Introduction	13
2.2 Factors influencing change in higher education	14
2.3 Contexts for teaching and learning.....	26
2.4 Information and communication technologies	35
2.5 Educational change in higher education.....	37
2.6 New environments for teaching and learning	44
2.7 Relevance of the literature to this study.....	49
Chapter 3 Methodology and research design.....	51
3.1 Introduction	51
3.2 Overview of the study	51
3.3 The characteristics of this study	51
3.4 Qualitative research	52
3.5 Case study	53
3.6 Data collection and analysis	57
3.7 Research design for this study	61
3.8 Summary.....	86
Chapter 4 Preparation for a new campus	87
4.1 Introduction	87
4.2 Initiation stage.....	88
4.3 Organisational development	112
4.4 Summary.....	143
Chapter 5 The implementation process: perceptions of the first year.....	145
5.1 Introduction	145
5.2 Relevance to the study	145
5.3 Method	146
5.4 Course offerings in 2000.....	146
5.5 Bachelor of Arts (Community and Environment)	147
5.6 Perceptions of the subjects.....	160
5.1 Summary and discussion.....	209

Chapter 6 People, Processes and Structures	223
6.1 Introduction	223
6.2 Relevance to the study	223
6.3 Implementation	224
6.4 Support structures.....	225
6.5 Administration processes.....	240
6.6 Infrastructure.....	245
6.7 Discussion.....	256
6.8 Summary.....	270
Chapter 7 Recommendations and emerging model.....	271
7.1 Introduction	271
7.2 Perceptions of teaching and learning	272
7.3 Support for the learning program.....	280
7.4 Implications for teaching and learning	284
7.5 The implementation process.....	285
7.6 Emerging framework for implementation of a supportive distributed learning context....	304
7.7 Limitations of the study	311
7.8 Further research	312
7.9 Conclusion	313
References	315
Appendices	337

List of tables

Table	Page
3.1 Key role of stakeholders	67
3.2 Data collection matrix.....	77
3.3 Subjects survey: respondents and enrolments.....	78
3.4 Summary of data collection from primary sources	79
3.5 Stages of data analysis and representation	80
3.6 Verification procedures used in this study	85
4.1 Perception: Access to growth funds	100
4.2 Educational participation in the 12-24 year age group*	101
4.3 Perception: Improve educational equity and access	102
4.4 Perception: Competition for students.....	104
4.5 Perception: Improve teaching and learning	105
4.6 Perception: Partnerships with other education providers	106
4.7 Perception: Provide employment.....	107
4.8 Perception: Retain students in the local community.....	108
4.9 Timeline of key developments	115
4.10 External committees involved in planning and development.....	117
4.11 Information Technology Policy Advisory Committee: members and functions.....	122
4.12 Teaching and Learning Facilities Advisory Committee: members and functions	123
4.13 Educational Delivery Information Team: members and functions	125
4.14 South Coast Curriculum Committee: members and functions	126
4.15 Faculty of Arts committees involved in planning and development.....	130
5.1 The role of tutors.....	154
5.2 Subject A: Summary of perceptions of stakeholders.....	168
5.3 Subject B: Summary of perceptions of stakeholders.....	180
5.4 Subject C: Summary of perceptions of stakeholders.....	192
5.5 Subject D: Summary of perceptions of stakeholders.....	204
6.1 Student support issues	225
6.2 Incentives and deterrents: tutors	238
6.3 Incentives and deterrents: subject coordinators	239
6.4 Issues with computer use	251
6.5 Issues with educational use of technology: videoconference.....	253
6.6 Issues with educational use of technology: telephone access	254
6.7 Issues with educational use of technology: WebCT	255
6.8 Issues with educational use of technology: video/audio lectures	256

List of figures

Figure	Page
1.1 Location of University of Wollongong Campus and Access Centres, 2001	9
2.1 Related literature and research	14
2.2 Interactive factors affecting implementation	42
3.1 Roles and location of staff involved with degree implementation	66
3.2 Students enrolled in a first year subject overall, March 2000	68
3.3 Bachelor of Arts enrolments	69
3.4 Bachelor of Arts: Enrolment by gender.....	69
3.5 Bachelor of Arts: Enrolment by age range.....	70
4.1 South Coast planning and development structures.....	118
7.1 Model for implementation in higher education.....	287
7.2 Framework for implementation of a supportive distributed learning context	305

Chapter 1

Introduction to the study

1.1 Introduction

In December 1992, the Vice Chancellor of the University of Wollongong announced plans to offer two undergraduate degrees in the South Coast region of New South Wales, a Bachelor of Arts and a Bachelor of Commerce. As a result of extensive negotiations and planning with Shoalhaven Council, an interim campus was established in 1993 to convince the Federal government of the viability of establishing a university campus in the region. Access centres were included in the planning to meet the needs of students in the more remote towns on the far south coast, with the support of their local councils. The vision was realised in 2000 when the Shoalhaven Campus of the University of Wollongong, and two access centres at Batemans Bay and Bega opened their doors to students.

This qualitative case study investigated the first year of implementation of this initiative through the perspective of the participants in a Bachelor of Arts degree using flexible approaches to teaching and learning in a distributed learning context. The aim of the study was to understand the experience of teaching and learning in this context through the multiple perceptions of the participants and through examination of the support the institution provided for the initiative. By identifying the characteristics of a supportive context for distributed learning, the findings from the study will inform policy and practice at the University of Wollongong. The resultant recommendations may also assist the university with further implementation of the degree and with future change initiatives. The study may also have relevance for other institutions embarking on similar ventures.

This chapter explains the rationale for the study and situates it within the literature of higher education. The purpose of the study and the research questions are explained and an outline of the research strategy is provided. The researcher's role, the significance of the study and its limitations are also discussed. The chapter concludes with an overview of the structure of the thesis.

1.2 Background

In the 1990s higher education in Australia and overseas experienced a period of dramatic change. This was influenced by many of the social, economic, political and technological reforms that were pushing universities to be more business-like in their management and to provide a better service to their client base, the students. Institutions were competing for students at a national and international level, student expectations with regard to a quality education were higher, and politicians were placing unprecedented demands on higher education to do more with less as the public purse tightened in all areas of spending (Australian Vice-Chancellors' Committee, 1996; Bacsich, 1996; Bates, 1997; Daniel, 1996a; Yetton & Associates, 1997).

An Australian Federal government agenda of increasing access to higher education to meet the needs of rural and remote students (DEET, 1993; DEET & Beazley, 1994; DEET & NBEET, 1989) provided financial incentive for institutions in Australia to expand their physical boundaries to include satellite campuses and access centres. Many institutions took advantage of the offer, including the University of Wollongong (DEET, 1993). The university established a plan to meet the guidelines the Federal government had set to access this funding. In 1996, the *Provision of Higher Education on the South Coast of NSW - Options Study* (Fuller, 1996) initiated funding approval of \$6.62m from the government for a new campus located in Nowra, and access centres in Batemans Bay and Bega (DEET & Kemp, 1999). Further funding to support the initiative was provided through the partners in the initiative, Technical and Further Education (TAFE), and local councils.

Much of the national and international literature on higher education points to a rapidly changing environment in the 1990s and into the 21st century that provides five themes that are relevant to this study.

They include:

- a move from an elite to a mass education system with a resultant increased diversity of the student body (Adams, 1998; DEET & OECD, 1993; McInnis, James, & Hartley, 2000; Scott, 1995; Sharpham, 1993; Trow, 1973);
- the changing relationships between government and universities (Adams, 2002; Coaldrake & Stedman, 1998; CRHEFP, 1998; Gallagher, 2000; National Committee of Inquiry into Higher Education, 1997);

- the drive to transform teaching and learning from a teacher-centred focus to a student-centred focus (Biggs, 1999; Laurillard, 2002; Ramsden, 1992);
- the impact of emerging technologies on the provision of quality teaching and learning (Alexander & McKenzie, 1998; Bates, 1997; Gunn, 2000b; Harasim, Hiltz, Teles, & Turoff, 1995; McCann, Christmass, Nicholson, & Stuparich, 1998; McNaught, Phillips, Rossiter, & Winn, 2000); and
- the changing environment of academic work (Adams, 1998; Altbach, 2000; Anderson, Johnson, & Saha, 2002; Becher, 1989; Coaldrake & Stedman, 1999; McInnis, 2000; Taylor, 1999b).

The five themes influenced the experience of teaching and learning in universities and are briefly related to the context of the study. The themes are discussed in more detail in the literature review.

The diversification of the student body and increased numbers were coupled with reduced funding and increased accountability measures through government quality audits. Universities had to examine alternate ways to meet the demands of government and students for enhancements to the system that not only improved access for rural students but also for local students. The profile of students was changing as it included an increasing number of mature-age students who required greater flexibility as they managed competing priorities such as full-time or part-time work and parenting responsibilities with study (McInnis et al., 2000; McInnis, James, & McNaught, 1995).

‘Flexible delivery’ and ‘flexible learning’ are key terms used in the literature to identify an approach universities used to meet this demand. The terms were defined poorly during the 1990s and often used interchangeably. They were used across the sector to imply a shift from the traditional face-to-face lecture/tutorial format of teaching to a more student-centred approach that provided greater student choice in terms of time and place of learning. They included many other dimensions of flexibility such as varied entry and completion requirements, pace, content, instructional approach, learning resource, and technology use (Collis, 1998; Collis & Moonen, 2001; Moran, 1995, 1996; Nikolova & Collis, 1998; Nunan, 1996; Thomas, 1995). The term flexible delivery focused more on the choice of resources and appropriateness of the delivery medium, including technologies used; and the term flexible learning was adopted to reflect an increasing emphasis on student choice and control of the learning process in order to improve learning outcomes.

The basis for this change was student learning research, which focussed on the contexts and settings in which students learn and was supported by changes in educational psychology theory, in particular the theories of constructivism (Duffy & Cunningham, 1996; Jonassen, 1991). Constructivism was derived from early work by Dewey (1916; 1929; 1938) and Piaget (1977) and essentially espouses the view that learning is an active process of “constructing rather than acquiring knowledge” and that teaching should involve supporting the process rather than “communicating knowledge” (Duffy & Cunningham, 1996, p171). Further interpretation is provided by Biggs (1999) through his notion that meaning is created by “the students’ *learning activities*, their ‘approaches to learning’” (p12-13), derived from early work by Marton and Säljö (1976).

A ‘distributed learning context’ provides opportunity to use aspects of flexible learning, though the terms are sometimes confused in the literature. A distributed learning context for teaching and learning is the combination of reduced face-to-face teaching with both synchronous and asynchronous interaction often mediated by technology to produce an environment for learning which is student-centred.

This approach results in the teaching and learning activities being dispersed across a number of settings such as libraries, access centres and campuses and the student’s home; across time; and through a variety of technologies, including print, videoconference, and online tools (Dede, Brown L’Bahy, & Whitehouse, 2002; Salzberg & Polyson, 1995; University of British Columbia, 1995). Distributed learning is distinguished from distance education by the requirement that students attend tutorials at designated times throughout the semester, and from traditional on-campus teaching by the reduction of face-to-face meetings for lectures (Bates, 2001; Dede, 1995). Although there are a number of related terms referred to in the literature such as blended learning (Collis & Moonen, 2001; Hedberg & Corrent-Agostinho, 2000; Rossiter, 1997), mixed-mode (Bates, 2001), and networked learning (Harasim et al., 1995; Steeples & Jones, 2002), distributed learning best describes the context used for this study.

Conference proceedings in recent years have provided much descriptive evidence of subject and course development in these related areas, (see for example Educational Multimedia, Hypermedia and Telecommunications and Australasian Society for Computers In Learning In Tertiary Education conference proceedings, 1995 - 2000). However, research-based evidence is scarce (Alexander & Hedberg, 1994; Reeves, 1995; Reeves, 2000).

Support for teaching and learning in specific contexts such as traditional on-campus (Biggs, 1999; Ramsden, 1992), and distance education (Ragan, 1998) are plentiful, but there is a blurring of boundaries between the two groups supported by the use of educational technology (Ehrmann, 1997; Laurillard, 2002). However, only a small body of literature exists that investigates the change process required when the convergence occurs, as it does in a distributed learning context.

The research literature on educational change in the school sector (Cuban, 1984; Curry, 1992; Fullan, 1981; Fullan, 2001a, 2001b; Hargreaves, 1994) and the higher education sector (Taylor, 1999b; Trowler & Knight, 2002) is well documented. This literature draws on the body of work related to organisational change and learning organisations; for example the work of Argyris and Schön (1996) and the work of Senge (1992). This reflects the increased influence of the corporate world on the way schools and universities are managed, through policy and funding changes with demands for greater accountability and improvements to the quality of teaching (Gallagher, 2000; Trowler, 2002). Numerous models for educational change exist and Ellsworth (2000), within his system model of change, provides a taxonomy of key models, which reflects the change efforts to be addressed. From this he suggests the researcher apply different models to different stages, referring to the models as a toolbox from which to draw. In his framework for a change communication model, he identifies seven components of the toolbox and identifies key authors and their frameworks or models.

One well-known and respected model for educational change in the toolbox is Fullan's model of factors affecting implementation (Fullan, 1981; Fullan, 2001b; Fullan & Stiegelbauer, 1991). For this study, the researcher deemed Fullan's model, which focuses on the process of change and the impact of change agents during implementation, to be the most pertinent component of the toolbox to frame the discussion of implementation. It is deemed useful because it focuses on the participants in the change process, and as such meets the need of this study to examine the implementation process.

Although the model focuses on the school sector, it is well suited to the complexities of higher education, most importantly because Fullan (2001b) illustrates that change is a process not an event, attributing the failure of many educational reforms to poor attention and support at the implementation stage.

His model highlights the interactivity between the external factors, the characteristics of change, which include the need, clarity, complexity and quality of change, and the local characteristics, such as work units and the individuals responsible for implementing the change. He points out that successful innovations occur when “they combine good ideas with good implementation decision and support systems” (Fullan & Stiegelbauer, 1991, p112). Consequently, this study focuses on the characteristics of the settings in which the implementation took place and the decision and support systems that the institution established.

There are few studies in the literature on establishing satellite campuses, the impact of this on teaching and learning, and the change process within the university to support the establishment. For example, a study of the Logan Campus of Griffith University provides lessons learned from the initial four years of the campus, but does not expand this to discuss the change process (Taylor & Blaik, 2002). An institutional flexible delivery initiative is linked to the opening of a new campus in a study of change implementation at the University of Queensland. This study provides details of the process of planning and implementation from an institutional perspective, but does not examine the perceptions of academic staff and students (Chalmers, 1999). However, a recent report of models of flexible learning in higher education provides insight to the extent of adoption of flexible learning in Australia and suggests “further research and evaluation of learning processes and learning outcomes associated with flexible provision of higher education is required” (Ling, Arger, Smallwood, Toomey, Kirkpatrick, & Barnard, 2001, pxx).

There is also a scarcity of studies of the complex change process at the degree level to provide insight to the nature of a distributed or flexible learning context in Australia. Taylor and Blaik (2002) document the experience at the Logan Campus of Griffith University, but examine the institutional not the degree level. In the Netherlands, Collis and Moonen (2001) document the experience of the University of Twente to initiate an institution-wide change that focuses on flexible learning and indicates the complexity of the task of implementing imposed change across the institution. Among their recommendations to improve implementation, they stress the importance of focussing on the human side of change rather than the technological, and the importance of supporting staff through the process. Other literature also focuses on wider institutional change by examining the leadership and strategies required to support the change process in higher education (Astin, Astin, & Associates, 2000; Eckel, Green, Hill, & Mallon, 1999; Kezar & Eckel, 2002; Ramsden, 1998).

The implication for this study meant the implementation of the new degree was examined in the context of the institution through an investigation of how the initiative was supported. Furthermore, the perceptions of the participants were sought to determine how they experienced the first year of the implementation. The study is significant for further implementation of the degree and to inform practice within the institution.

1.3 Research strategy

A qualitative approach that used case study methods was employed for this study (Merriam, 1998; Stake, 1998). Qualitative research is useful when a “complex, holistic picture” is required to examine multiple dimensions of a problem or issue and is particularly useful in educational contexts (Creswell, 1998, p15). Creswell (1998) suggests that a qualitative approach should be used when it matches the nature of the research question, the research is exploratory, a detailed picture is required, it has a natural setting, and it emphasises that the researcher is actively involved. The study is predominantly qualitative in nature, but includes quantitative data collected from subject surveys and secondary data from institutional records. Case study methods are identified as useful within educational contexts because of the multidimensional aspects to be explored (Merriam, 1998).

The case is bounded by time (the first year of a new program implementation) and by location (the implementation sites) in order to inform practice for the following years of the program. The case is developed through a ‘thick description’ of the implementation process from the perceptions of the core stakeholders (Geertz, 1973). This study drew on the participants’ perceptions for an understanding of the phenomenon, used the researcher as the primary instrument for data collection and analysis, which involved fieldwork, adopted an inductive research strategy, and provided a rich description through the words of the participants (Merriam, 1998).

Since the focus of the study was on the implementation of a new degree program in a new learning environment, qualitative case study methods were deemed most appropriate because of the complex, context-specific nature of the study and the uniqueness of the implementation to the institution. It was also appropriate because of its usefulness for examining process where the characteristics of the context can be identified and are needed to interpret data (Merriam, 1998).

The study investigated the implementation process through to the end of the first year and collected data about the initiation. Data collection occurred in 2000. The participants for the collection of primary source material were the students enrolled in the Bachelor of Arts (Community and Environment), their tutors and subject coordinators for the subjects in the first year. Students and tutors were drawn from the Shoalhaven Campus, Batemans Bay Library and Access Centre, and Bega Education Access Centre. There were 46 students enrolled in the Bachelor of Arts (Community and Environment) in 2000. Sixteen tutors participated in the study. Four subject coordinators were interviewed, two of whom were the subject developers. The executive of the Faculty of Arts and the Centre Coordinators also participated in the interviews for the study.

The data sources included documents (such as reports, meeting minutes and staff development activity records), subject surveys, semi-structured interviews, focus groups, observations at the centres and during participation in committees, fieldwork notes, and informal discussions. A detailed description of the case is developed and an analysis of themes and an interpretation of the case informs the recommendations for future practice (Creswell, 1998; Stake, 1995). A holistic analysis of the entire case is used to inform the case study in order to illuminate implications for professional practice, hence the use of the qualitative approach.

Analysis of data sources occurred throughout 2000 as the data were collected. Interviews and focus groups were transcribed and analysed initially for categories and themes using the constant comparative method. The data were coded and the categories were constantly refined as themes emerged.

1.4 Context of the study

The University of Wollongong, a regional campus located on the South Coast of NSW, was developed originally to meet the needs of students in the Illawarra region. The university expanded to include a centre in Sydney, a temporary campus at Graham Park in Berry (since 1993), and an international campus in Dubai. In 2000, further expansion took place when the Bega Education Access Centre and the Batemans Bay Library and Education Access Centre opened their doors to students and the new Shoalhaven Campus replaced the interim Graham Park campus.

These three new centres form part of South Coast Education Network, a partnership initiative between the University of Wollongong, Illawarra Institute of Technology (TAFE), the Department of School Education, and local government bodies (See Figure 1.1 for location and distance between centres).



(University of Wollongong, 2001)

Figure 1.1: Location of University of Wollongong Campus and Access Centres, 2001

This case study investigates the implementation of a new degree, the Bachelor of Arts (Community and Environment), at the satellite campus and access centres in 2000. The implementation is examined within the wider context of the institution, the University of Wollongong. The case study was undertaken during a program evaluation conducted by the University of Wollongong. The South Coast Teaching and Learning Evaluation Working Party was a sub-group of the program evaluation team that was evaluating all degrees on offer, and the researcher was chair of the working party (see Lefoe, 2000; Wills, Lefoe, & Mobbs, 2000).

1.5 Roles of the researcher

The researcher had several roles in the study:

- Data collection instrument. The researcher was involved in collecting and analysing data, and observing and interacting with participants.
- Educational developer, Centre for Educational Development and Interactive Resources (CEDIR). In this support role the researcher was a member of South Coast Project (Arts) team and a member of design teams for the individual subjects, and will continue to work with subject developers and tutors in the areas of subject design and in a staff development role.
- Chair, South Coast Teaching and Learning Evaluation Working Party. The Centre for Educational Development and Interactive Resources (CEDIR) evaluation team formed the working party in 2000 to formalise the evaluation of the South Coast implementation. In this role, the researcher provided ongoing feedback from the evaluation to key stakeholders to address issues as they arose.
- Interviewer. The researcher conducted the interviews and focus groups.
- Participant Observer. The researcher observed the case study participants at each of the sites and participated in many of the committees involved in the implementation at the institutional and faculty level.

1.6 Research questions

The broad research question guiding this study is: *What are the characteristics that could constitute guiding principles and strategies for a supportive context for distributed learning?* The question addresses the need identified in the literature for a better understanding of the implementation of distributed learning context by investigating the setting for the initiative.

Two sub-questions were derived from the guiding question as the study developed, following the qualitative research tradition. These questions investigated two aspects of the implementation, the Bachelor of Arts (Community and Environment) and the decision and support systems the institution established for the initiative.

- 1) *What were the perceptions of the students, tutors, and subject coordinators in the BA program of teaching and learning in a distributed learning context?*

This question focussed on the new degree and the subjects within it. It investigated the nature of the degree through the subject design process and aspects of teaching and learning in individual subjects during implementation.

- 2) *What organisational factors promoted or constrained teaching and learning for students and staff in a distributed learning context?*

This question was concerned with the people, processes and structures within the institution that supported the implementation. The researcher considered the context for the implementation through examination of the initiation process for the new campus and centres at the institutional level, and for the new degree at the faculty level. The research followed the process through the first year of implementation.

1.7 Significance and limitations of the study

The continuation and survival of any university is dependent on how the institution manages the change process. New institutional policies and practices reflect this constantly changing environment. However, the research literature reveals little about initiating and implementing change in the higher education sector for the establishment of new teaching and learning environments in satellite campuses, and how institutions support such ventures. By examining how one institution met the challenge of establishing a satellite campus and access centres through the investigation of the distributed learning context this case study contributes to the small body of research in the area. It also contributes to the literature on educational change in higher education by examining the institutional decisions and support for the initiative. Whilst it is recognised that one case study does not provide sufficient evidence to extend theory on educational change, through the insights gained from this context it suggests further areas for research.

The study is significant for the implementation of further subjects in the three locations, but was restricted by the short time frame and limited offerings of subjects. A longitudinal study of the implementation of the whole degree would provide further insight to improving processes and the future development of policy in the area for the institution.

The case study investigated a multidimensional context that was bounded by a period of one year, in a specific institution and with specific participants. As such, the findings cannot be generalised by the researcher to other contexts. However, generalisations may be made by the reader to other contexts (Firestone, 1993; Stake, 1998).

The researcher in this context was also a stakeholder, and so made every effort to examine the researcher's subjectivity as well as the stakeholders' (Merriam, 1998). This is addressed through the verification procedures used in the study that included triangulation of data, external verification of procedures, member checking and the detailed description of the case.

Limitations of the case study method include the subjective nature of interviews with tutors, subject coordinators and students, and what could be considered an unrealistic expectation of a level of trust and cooperation considering the high political stakes involved for some of the participants. The case study will be embargoed to protect the participants, but conclusions will be disseminated by representation of outcomes in publications.

1.8 Structure of thesis

This chapter has provided an introduction and a background to the study. It describes the research strategy and questions that are explored in subsequent chapters. Chapter Two explores the research and conceptual literature related to educational change in higher education, as well as literature related to new approaches to teaching and learning. Chapter Three presents the methodology of the study, the rationale for a qualitative case study approach and the data collection and analysis methods. Chapter Four provides the institutional context for the establishment of the initiative. Chapters Five and Six present the results and interpretation of the study. Chapter Five describes the implementation of the first year of the new degree, the Bachelor of Arts (Community and Environment), through a description of the elements of the subjects. It then reviews the perceptions of the stakeholders to identify how they experienced the program. Chapter Six focuses on the broader context of how the learning program was supported by the institution, and the impact on the implementation process. Chapter Seven presents the findings of the study and makes recommendations to improve practice in the institution. It presents a preliminary framework for implementation of a supportive context for distributed learning that identifies the characteristics required to guide this implementation.

Chapter 2

Review of literature

2.1 Introduction

This study investigates the initiation and implementation of a new degree at a satellite campus and access centres of a regional higher education institution in Australia. Increasingly, researchers have become interested in the study of educational change, in the school and higher education sectors. However, the research reveals little about initiating and implementing change in the higher education sector for the establishment of new teaching and learning environments in satellite campuses, and how institutions support such ventures.

This chapter reviews the literature and is divided into six sections. The first section examines the factors influencing change in higher education. The second section looks at the contexts of teaching and learning in higher education and defines the concept of distributed learning. The third section examines the challenges and opportunities afforded by information and communication technologies for new learning environments. The fourth section considers educational change in higher education, and the frameworks and models for initiating and implementing this change. The fifth section focuses on specific studies related to implementing distributed learning contexts, the heart of this study. The sixth and final section locates this study in the context of implementation of change in a university. It concludes by identifying the relationship between this study and the literature, the gaps found and the way this study addresses the gaps.

The themes identified for the literature review are examined through the inter-related literature represented by Figure 2.1. Due to the nature of qualitative research, this literature review is presented with the benefit of hindsight. As themes emerged in the study, the relevant literature was identified and reviewed.

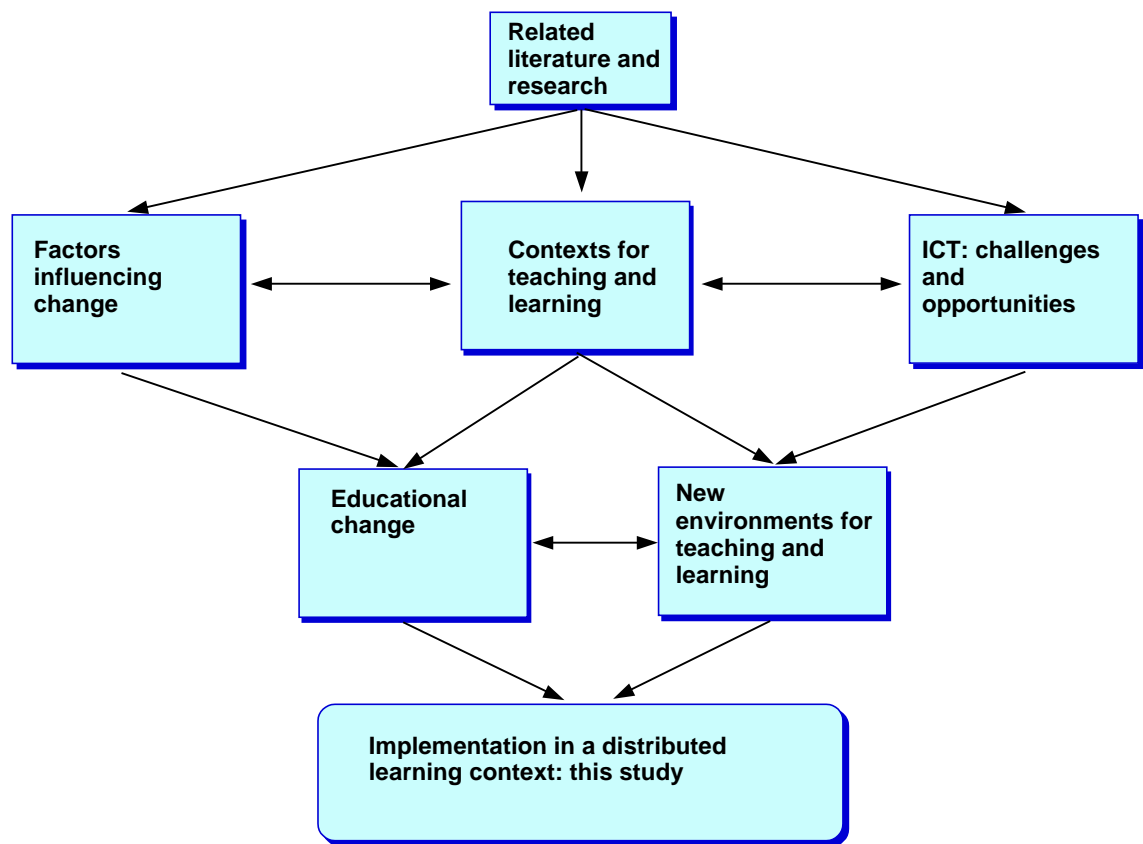


Figure 2.1: Related literature and research

2.2 Factors influencing change in higher education

Higher education is experiencing rapid growth in a period of massive change in Australia and overseas. Institutions are competing for students at a national and international level, student expectations with regard to a quality education are becoming higher and politicians are placing unprecedented demands on higher education to do more with less as the public purse tightens in all areas of spending. (Australian Vice-Chancellors' Committee, 1996; Bacsich, 1996; Bates, 1997; Daniel, 1996b).

Researchers have identified a number of drivers for change that had a significant impact on higher education in Australia in the 1990s. Social, political and economic reforms drove these changes, which were pushing educational institutions to be more business-like in their provision of service to their client base, the students. The major contributing factors influencing change included:

- a move from an elite to a mass education system with a resultant increased diversity of the student body;
- the changing relationships between government and universities;
- the drive to transform teaching and learning from a teacher-centred focus to a student-centred focus;
- the impact of emerging technologies on the provision of quality teaching and learning;
- the changing environment of academic work.

The following sections discuss each of these in more detail.

2.2.1 Massification of higher education

The higher education system in Australia has moved from an elite to a mass education system, an international trend acknowledged in the literature as occurring in all developed countries as a move toward universal access to improved educational opportunities (Coaldrake & Stedman, 1998; Ramsden, 1998; Sharpham, 1993; Trow, 1973). Trow (1973) suggests that the move from an elite system begins when more than 15% of the relevant age group attends higher education and the mass system continues to develop until about 50% are in attendance, when it can be labelled a universal system. In Australia, the movement towards a mass system occurred following the Second World War. The system has moved from eight universities in 1946 with approximately 26,000 students, to 36 universities in 2000 and 700,000 students (Ramsden, 1998; Sharpham, 1993).

As student numbers have increased, the student profile has changed. Non-traditional entrants (that is, those who are not school leavers) are increasingly studying in an off-campus mode and include women (all areas), part-time students (employed), workplace-based students, rural/isolated students, and busy managers and professionals (Resource Based Learning Working Party, 1996, p6).

Students may be working full-time and studying part-time and may change locations as their careers change direction. This has led to a number of changes in the student profile with an increased diversity in abilities, age, experience, socio-economic status, cultural background, and even motivation. Increased competition in the job market and increased costs for education, with large debts on completion, means that students also have changed expectations of what they perceive as “value for money” (Biggs, 1999, p2). Strategies for meeting the needs of such a changing student profile can be addressed through improving teaching and learning (Biggs, 1999; Boyer Commission & Kenny, 1998; Ramsden, 1992), and using emerging technologies in the teaching/learning environment (Bates, 1997; Laurillard, 2002).

The effect of this move according to Ramsden (1998) is that:

There are more students to teach, and they are no longer a gifted and motivated academic group, capable of surviving the bleakest of bad teaching, but much more like school students in their range of ability and the corresponding demands they place on our time and energy. (p15)

An Australian study of 2,000 students making the transition from secondary to tertiary education reported that students “consistently identify ‘independent learning’, ‘self-discipline’ and ‘self-reliance’ as basic goals of education. Yet many are unsure about how to achieve these goals, and often find that they are expected somehow to ‘know’ how to be independent and self-reliant” (Pargetter, McInnis, James, Evans, & Dobson, 1998, p56).

Ramsden (1998) contends that the impact on academic staff is even more profound in that it has led to changed management practices, differing public perceptions of higher education and changes to professional standards and the notion of accountability.

Sharpham (1993) suggested that the cost to maintain a mass system meant a need to improve efficiency, to reduce duplication, and to consolidate into “more economic units” (p13). This changing student profile has coincided with changed funding arrangements and increased workload for academic staff as governments and community called for increased “efficiency and effectiveness”, more “accountability” and improved “quality and diversity” in institutions (Adams, 1998, p421). elite to a mass education

2.2.2 Relationships between government and universities

Australian higher education institutions have been bombarded with change efforts, particularly since deregulation of the sector in 1988, representing a shift in power from the academy to the government (Gallagher, 2000). Many of the changes were driven by the new market economy that found universities competing for funds in a changed resource environment (Adams, 2002; Coaldrake & Stedman, 1998). The changes included forced amalgamation of institutions across sectors, specified funding for students on a triennial basis, funding incentives tied to national priorities and requirements from government of documentation related to planning and performance (Gallagher, 2000).

The initiative occurred within a national and institutional context of intentional change to improve the quality of the university experience for students. This was driven by the government's agenda of the 1990s to increase the efficiency and effectiveness of higher education through a quality assurance process, as power moved from the state to the federal government (Adams, 2002; Coaldrake & Stedman, 1998; Gallagher, 2000; University of Wollongong, 1994a).

In the early nineties in Australia, the Federal government provided the majority of funding for the university sector. The Department of Employment, Education and Training (DEET) provided the funds to the states for distribution to higher education institutions. The Government acknowledged that a pressure for new campuses was the result of an increasing and shifting population as well as increased aspirations for higher education, but was concerned about the "significant resource implications" (Department of Employment, Education and Training & Baldwin, 1992, p21).

In 1993, an amendment to the Higher Education Funding Act meant that from 1994 funding went directly to the institutions, ensuring that they became directly accountable to the Federal government for their expenditure. This gave the Federal government the power to push for improvements in quality assurance, staff development, innovative teaching practice, information and communication technology (ICT), and access and equity initiatives such as Open Learning (DEET & Baldwin, 1993). The government also incorporated capital funding into operating grants and that meant growth funds were only accessible through a capital development pool with funds available for the development of new campuses.

New campuses such as Coffs Harbour (University of New England), Ourimbah (University of Newcastle), and Berwick (Monash University) were funded from this pool (DEET & Beazley, 1994, p61).

Deregulation of universities in the mid-nineties meant significant changes to the way universities operated. Actual funding of university places dropped from \$11,522 per EFTSU (equivalent full time student unit) in 1988 to \$10,463 in 1999 (Adams, 2002). The student to staff ratio increased significantly from 12.9:1 in 1990 to 18.8:1 in 2000 (Anderson et al., 2002; Australian Vice-Chancellors' Committee, 2001). Universities looked beyond their boundaries for ways to increase funds and became more entrepreneurial in their outlook through the inclusion of full fee-paying international students and more vocationally-oriented postgraduate courses to raise revenue (Gallagher, 2000). They also looked offshore, forming relationships with other institutions to provide a university education in partnership with them, or establishing their own offshore campuses. Within Australia, they also competed for students and extra funding. Any opportunity for access to growth funds was essential to universities, particularly regional institutions with limited and reducing budgets.

Universities worldwide were finding it difficult to meet the challenge of decreased funding from government sources (Flew, 1998). Reviews such as the Learning for Life: Review of Higher Education Financing and Policy in Australia (Committee for the Review of Higher Education Financing and Policy, 1997) and the Inquiry into Higher Education in UK (National Committee of Inquiry into Higher Education, 1997), suggested new directions for the university sector through recommendations for change to funding structures.

Whilst academia did not receive these recommendations well, the reviews identified the need to improve access to education and the quality of the educational experience, ideas supported by earlier government reports (National Board of Employment Education and Training, 1990, 1995, 1996) and high on the political agenda. Whilst attempting to reduce costs created a challenge for universities, many believed this could be met by improving teaching and learning, and through the use of information and communication technologies (Cunningham, Tapsall, Ryan, Bagdon, & Flew, 1998; Tinkler, Lepani, & Mitchell, 1996; Yetton & Associates, 1997).

2.2.3 Nature of teaching and learning

A significant body of research has emerged over the last century on the provision of higher education. More recently, attention has turned to teaching and learning in higher education, and research in the field has increased substantially since the 1970s when a number of books were becoming available to support teaching methods in higher education and suggesting new approaches. The increased numbers and diversity of students, and decreased staff/student ratios that have emerged in the last twenty years have impacted on the teaching and learning context. The traditional methods of lecture followed by tutorial, whilst still used, are not working as well as they did with the smaller, elite groups of students according to Biggs (1999). He identified the need for improved teaching practice with a focus on student learning, a notion supported by other researchers (Martin, 1999; Prosser & Trigwell, 1999; Ramsden, 1992).

Governments have also been concerned about the quality of teaching in universities (see for example National Committee of Inquiry into Higher Education, 1997; Committee for the Review on Higher Education Financing and Policy, 1997). Many government policy initiatives in Australia have been designed specifically to enhance teaching in an era of increased accountability. This has resulted in such funding initiatives as one round of the Committee for Quality Assurance in Higher Education, and national committees such as the Committee for Advancement of University Teaching (CAUT), the Committee for University Teaching and Staff Development (CUTSD), and the Australian Universities Teaching Committee (AUTC). The national committees, through leverage of funding for innovations, have encouraged universities to engage in improving teaching and learning and to support the use of emerging technologies.

Increasingly there has been a shifting focus from teaching to learning reflected in the research (Biggs, 1999; Entwistle & Ramsden, 1983; Ramsden, 1992). Entwistle (1997) provides a review of the different psychological perspectives of learning research, which demonstrates a move from clinical settings to the settings where the research is applied. This involved a shift from using essentially quantitative methods to qualitative methods of research that focus on the perspectives of those involved in teaching and learning, that is, the teachers and the learners. In addition, he points to the importance of the move from behaviourist to constructivist theories of learning. Cognitive psychology principles have strongly influenced the development of constructivist theories.

In this move away from the outcomes-based behaviourist theory, more attention was given to the learning process and a greater degree of autonomy and initiative was given to the learner (Lefoe, 1998).

Constructivism was derived from early work by Dewey (1916; 1929; 1938) and Piaget (1977) and essentially espouses that learning is an active process of “constructing rather than acquiring knowledge” and that teaching should involve supporting the process rather than “communicating knowledge” (Duffy & Cunningham, 1996, p171). Further interpretation is provided by Biggs (1999) through his notion that meaning is created by “the students’ *learning activities*, their ‘approaches to learning’” (p12-13).

The research on the approaches students take to learning was strongly influenced by early work by Marton and Säljö (1976). They introduced the idea that students take either a deep approach to learning with the intention of understanding ideas for themselves, or a surface approach, with the aim of coping with the requirements of the course. Some students also take a strategic approach, varying the use of a deep approach or a surface approach to attain the best results in assessment tasks (Entwistle, 1997).

Biggs (1999) has argued that approaches to learning can be facilitated by the ways teachers teach, their “conceptions of teaching” and he proposes a “constructive alignment” is required between curriculum, objectives, teaching and learning activities and assessment (p25).

The literature on assessment in higher education identifies that for many students, assessment is the key to determining the quality of student learning (Nightingale et al., 1996; Ramsden, 1992). Assessment can be formative, to provide feedback to students on their learning, or summative to indicate to the student how well they have learned usually through marks which contribute to final results (Biggs, 1999; Nightingale et al., 1996). Students benefit where formative and summative assessment are combined, that is where they receive marks for assessment tasks throughout the semester, but these assessment tasks include feedback to improve their learning (Nightingale et al., 1996). Effective assessment practices encourage students to use deep approaches to learning rather than surface approaches, ensuring that understanding is developed and that students are able to do more than reproduce facts (Biggs, 1999; Ramsden, 1992).

Ramsden (1992, p71) promotes the idea that closely related to the assessment process is the notion of workload, that is the amount of content material taught and assessed. A recent study by Kember and Leung (1998) examined students' perceptions of workload, confirming findings in earlier studies by Entwistle and Ramsden (1983) and Marton and Booth (1997). When students perceive their workload as overly high, it can lead to a reduction in class enrolments and has a negative effect on their learning. Although Kember and Leung (1998) point out that actual workload is difficult to measure with any precision, their research identified that when workloads were perceived as high by students they tended to resort to a surface approach to learning, that is they rote-learned material or skimmed the surface to complete assessment tasks. The converse was also true, that when students used a surface approach to learning or rote-learned material they perceived their workload as high.

The changing context has presented new opportunities for teachers to examine the way in which they teach and how learners learn (Biggs, 1999; Chalmers & Fuller, 1996; Laurillard, 1997; Ramsden, 1992). Whilst research in the area of student learning is relatively new, the shift in focus on teaching improvements to improving the ways that teachers can assist students to learn is the key to improving teaching practice in higher education (Marton & Booth, 1997; Prosser & Trigwell, 1999; Ramsden, 1992). This requires effective teaching that encourages active engagement in learning by students. Emerging technologies were identified as one way to engage students in their learning, whilst decreasing costs and improving the quality of teaching and learning.

2.2.4 Emerging technologies and quality teaching and learning

The increasing use of technology in higher education is well documented (Cochrane, Ellis, & Johnston, 1993; Jonassen, 1996; Stoner, 1996). Technology research has been significantly affected by the paradigm shift from behavioural to cognitive psychology that points to a change in emphasis on:

- problem solving and process skills;
- using technology to create meaningful learning contexts where students are actively involved;
- interaction of specific learning technologies with specific learner characteristics;
- the process of learning rather than teaching. (Thompson, Simonson, & Hargrave, 1996, p64)

Educational technology is identified as one way to support this change in direction to improve the quality of learning. Whilst the use of educational technology has provided greater productivity and reduced costs across administration of universities and within the realm of the faculty for research, there is little evidence of improvements in teaching and learning, according to Green and Gilbert (1995).

A study by Yetton and Associates (1997) revealed universal agreement “that IT [Information Technology] initiatives had both improved the quality and reduced the costs of teaching and administration” (pviii). However, they found little evidence of evaluation to support such claims, an assertion espoused by Reeves (1995) and reiterated in a later article (Reeves, 2000).

Evaluation of UK initiatives in the educational technology field is identified in an early report on emerging technology use in higher education (MacDonald & Jenkins, 1979). This report on 35 innovative uses of emerging technology highlighted and supported findings in later research (for example, see Alexander & McKenzie, 1998; Collis, 1998) that provide good reasons for ensuring that sound pedagogy drives the use of technology in education. The main findings were that Computer Assisted Learning (CAL): had no basis in learning theory; consolidated previous knowledge for political survival; was an add-on to normal class work to minimise threats to the status quo; and was hindered by a number of technology problems. The report also identified the difficulties of transferability between institutions (MacDonald & Jenkins, 1979) that still plagues institutions today (Alexander & McKenzie, 1998).

Later initiatives, which highlight the integration of technology-enhanced teaching with pedagogical practices in Scotland, were evaluated in the Learning Technology Dissemination Initiative. The initiative provided reports and case studies of a variety of innovations across a number of disciplines and moved closer to addressing such issues (Hewer & Moge, 1997; Moge, 1998; Stoner, 1996), though still did not address the issue of transferability between institutions. Other initiatives in the UK such as the Teaching and Learning Technology Programme (TLTP) and the Joint Technologies Applications Program (JTAP) explored issues related to the use of technology in higher education. The TLTP initially focussed on developing materials for teaching and learning and approaches to implementation. By 2000, this focus had changed to integration of technology within higher education. Evaluation of this approach identified a need for more effective research to prove that “learning technology is ‘better’ or enhances learning and teaching” (Butland, Conole, O’Leary, Jones, & Cook, 2000, p444).

To support this need the JTAP projects were reviewed to determine their relevance for teaching and learning. The findings of this review indicated the importance of staff development and other support for effective implementation and that transferability was occurring across disciplines and institutions. However, the majority of the projects were technologically driven rather than pedagogically driven, though those with explicit pedagogical approaches provided evidence of “excellent and innovative applications” (Conole, Smith, & Franklin, 2002, p116).

In Australia, a study by Alexander and McKenzie (1998) focussed on CAUT funded projects during 1994 and 1995, and identified benefits for student learning and for teaching from the use of information technology. Successful projects addressed a specific learning need, were underpinned by educational knowledge, had student and staff support, had the support of institutional leaders and were evaluated appropriately. Unsuccessful projects were typically technology driven, poorly evaluated and lacked support at many levels. New funding initiatives made available for institutions through CUTSD required cross-institutional collaboration to improve dissemination of practice and products, and evaluation, following the report by Alexander and McKenzie (1998). One study funded through the CUTSD initiative addressed the need for further staff development to evaluate such projects (Phillips, Bain, McNaught, Rice, & Tripp, 2000).

As the use of information and communication technologies increases in higher education, and efforts are made to improve quality and enhance the practice of teaching and learning, the nature of academic work is changing to meet these needs.

2.2.5 Nature of academic work

The impact of the changing nature of academic work is identified in a number of studies in the UK, USA and Australia (see for example Becher, 1989; Blau, 1973; Martin, 1999; Taylor, 1999b). Significant changes to working conditions, appointment terms and financial rewards are identified in a series of studies of academics in the US and Europe (Altbach, 2000). In Australia, a number of studies have been undertaken with academic staff to determine their perceptions of how their roles have changed. Adams (1998) has analysed survey studies conducted from 1968 to 1996 and noted the changed perceptions relative to changes in government policy and funding incentives. She found that academics valued a number of areas of their work, identified across all the early studies that included freedom, flexibility, independence and autonomy, salary and prestige.

The later studies identified “more contentious issues” such as the research versus teaching dilemma, more managerialist practices, reduced job security and limited career opportunities, and workload changes (Adams, 1998, p427). She noted that high workload and insufficient resources were creating the most stress for academic staff, citing Australian and international studies that supported this view. Furthermore, Adams suggested that further research should examine “the synergy within particular departments or faculties within a university, and the effect of leadership on academics within the individual unit or institution, via case studies of such units” (Adams, 1998, p428). Other studies confirm Adams’ analysis. For example, Coaldrake and Stedman (1999) suggest that the impact of these changes includes: “pressures on time, workload and morale”; an increased “emphasis on performance, professional standards and accountability,” a move from local autonomy to an institutional focus; more specialised and demanding academic work; and the blurring of roles of academic and general staff (p9).

Pickersgill and associates (1998) compared the work of general and academic staff in their study on staff roles in higher education institutions. They identified the major effects of the changing environment on the academic role. The effects included greater responsibility for administration as centralised systems are devolved to faculties and a requirement to learn new teaching skills and strategies as class sizes increase, new technologies are implemented and new forms of assessment are introduced. They also discussed the impact new research roles were having on teaching with academics vying for external funds, and requiring greater collaboration within and across institutions.

Anderson, Johnson and Saha (2002) examined the ways in which academic life had changed in the previous twenty years. They noted that “although we did not ask a question about workload the comments from respondents made it abundantly clear that this has increased to the point where the quality of teaching and learning is threatened” (p29). They suggest that the basis for the problem is a lack of resources and new technologies, which require better training and more administrative support.

McInnis (2000) conducted a study of 2,600 academics across 15 institutions in Australia in 1999 that examined workloads, satisfaction and aspects of teaching and research. He suggested that the high 58.4% response rate was an indicator of how important the issues are to academics. He compared data from a 1993 survey to a 1999 survey and noted an increased interest in research compared to teaching, a decrease in job satisfaction coupled with an increase in stress, low job satisfaction related to salary and work conditions, and a decrease in opportunity to pursue academic interests. He qualified his findings by pointing to the diversity across institutions, area of study, gender, and stage of career. Significantly, he found that whilst the number of hours worked had increased from 47.7 to 49.2 per week, 55% of those surveyed felt their work hours had substantially increased, and that less time was spent on teaching, but administration had increased to take up 17% of their time.

Most notably in the 1999 results, McInnis indicated that workload changes related to teaching including the need to develop materials for new technologies, a lack of training for teaching, and perceptions reported by 91% of respondents who believed that research was rewarded more than teaching. He expressed his concern that the “management of academic work is one of the biggest challenges facing Australian Universities” (McInnis, 2000, pxi), a view supported in a number of international contexts (for American and European perspectives see Altbach, 2000). McInnis concluded,

we have possibly reached a limit to the total time academics can reasonably be expected to spend on their work, even with their altruistic commitment. We are perhaps at a critical point for the academic profession where the amount of hours worked, and the diffusion and fragmentation of tasks seriously threatens the quality of both research and teaching. (McInnis, 2000, p63)

Recognition and reward for good teaching in a climate where research is given higher status is identified in recent studies as hampering needed improvements to teaching practice (Anderson et al., 2002; Coaldrake & Stedman, 1999; Martin, 1999). Ramsden recommended that a national policy be established to recognise and reward good teaching that still allowed for diversity across institutions (Ramsden, 1995). Whilst improvements have been made to policy and practice within institutions there are still perceptions that effective teaching is not well rewarded (Boyer, 1990; McInnis, 2000; Ramsden, 1995), as indicated in the recent issues paper for the government review of higher education in Australia (Department of Education, Science and Training, 2002, p49).

The factors identified above indicate a very different higher education system from that experienced twenty years ago. Student numbers have increased while the number of academic staff has decreased. Government control of higher education, at least in Australia and the UK, has seen an increased demand for accountability and quality, leveraged by funding incentives. Research on higher education has encouraged a focus on student learning and the teaching methods required to enhance learning outcomes. Technology is used increasingly to support all facets of universities and is identified as the way to increase flexibility and access to education for many students, and to improve the quality of teaching and learning with little research to back up the claims. Academic workload has increased, often because of administrative tasks, whilst time for teaching and research is declining.

Despite many government and institutional initiatives, research achievement is still regarded as the key to promotion. Further research in the form of case studies is required to determine the impact of these changes, as Adams (1998) suggested at the faculty and unit level. In particular, there is a need to determine how institutions can best support change to ensure it does not have a detrimental impact on staff and students. For this case study of the implementation of a new degree, an examination of the institutional support for such an initiative may provide insight into how this can be achieved.

In order to understand the change process there are three areas that are examined further in this review of the literature. They are the contexts for teaching and learning in higher education, the use of information and communication technologies and the process of educational change. Specific studies related to this study are then examined.

2.3 Contexts for teaching and learning

The new directions for teaching and learning are reflected in institutional strategic planning, and teaching and learning policies in many international universities (for example, University of British Columbia, University of Twente, Central Florida) and Australian universities (for example, Queensland University of Technology, Griffith University, and the University of Technology). These policies and strategic plans indicate that at the institutional level there is a desire to move from a teacher-centred traditional model of education towards a student-centred model of learning, through a notion of increased flexibility in teaching and learning methods.

Many universities have made these changes through a combination of campus-based and open, distance or distributed learning environments (Bates, 1997, 2001; Collis, 1998; Taylor, Lopez, & Quadrelli, 1996). All acknowledge the significant role of educational technology in the implementation and many are directing financial resources to the development of technological infrastructure (See Anderson, Johnson, & Milligan, 1999; EdNA Reference Committee, 1999).

However, the changes are perceived by many academics to be driven by economic rationalism, as confirmed by the report on higher education (Committee for Review of Higher Education Financing Policy, 1998), rather than the educational issues which many strategic plans identify. National bodies such as the Australian Vice Chancellors' Committee have indicated that the way to meet the needs of an increasing student population is through more cost-effective methods of open and distance education, as universities struggled to remain competitive with significant cuts to staffing budgets (Australian Vice-Chancellors' Committee, 1998). The policy changes signify that the context for university education is changing. Twenty years ago, the choice for students was between a campus-based experience and a distance education experience.

Recent changes see a blurring between the two contexts as educational technology is used increasingly in both areas. In a recent report for UNESCO, Bates (2001) predicted that distributed learning would become the dominant context for teaching and learning in the future. The next sections examine the contexts for teaching and learning in higher education.

2.3.1 Campus-based learning

The traditional campus-based learning environment that provides buildings and infrastructure (such as lecture theatres, tutorial rooms, library and computer labs) is still the preferred learning environment for many students seeking a tertiary education, particularly school leavers (McInnis et al., 2000). As student numbers increase and funding decreases it is becoming progressively more difficult for even the wealthy universities to maintain their facilities to meet the needs of the diverse student group (Yetton & Associates, 1997).

Some universities still display traditional beliefs about teaching that demonstrate an attachment to an elitist notion of what university is:

Many universities and colleges still embrace notions of education, rooted in subtle and stealthy socialisation and acculturation rather than explicit intellectual formation and skills development, which are recognisably elitist. Consequently they remain committed to a personal engagement between teachers and students, and to individualised (even charismatic) styles of scholarship and, less so, research which appear to take little account of either the values or the imperatives of a mass system. (Scott, 1995, p2)

Although Scott is referring to the situation in British universities, he also describes the situation for a number of older Australian universities, who have not yet made the significant changes to aspects of teaching and learning that are evident in many of the regional and technological universities (Anderson et al., 1999; Yetton & Associates, 1997).

The lecture format of traditional education is still the most common mode of teaching on campus despite some evidence of its ineffectiveness in a mass education setting (Bligh, 1972; Gibbs, 1982; Ramsden, 1992; Serim & Koch, 1996).

Taylor (1998) suggested that the lecture is institutionalised despite the fact that it is a process whereby ‘the notes of the lecturer are transmitted to the notes of the student, without passing through the minds of either’ (p59). Successful lecturing, like any teaching strategy, involves more than the transmission of knowledge if it is to meet the needs of the changing student profile and this can be managed successfully where effective strategies are in place (Chalmers & Fuller, 1996).

The traditional model of teaching is grounded in the history of elite higher education in the preindustrial era when selected, male students from higher levels of society came together in the one place at the same time to learn from a master. The system worked well with the small number of students (McIsaac & Gunawardena, 1996). Correspondence education, understandably seen as a poor cousin to this elite system, was introduced in the late 1800s to provide educational opportunities in the industrial era for the non-elite. This was the first step in acknowledging that learning could occur when the learner and the teacher were separated in space and time, that learning could be an individual activity, and that students could work at their own pace. It was also the first step towards higher education for the masses.

2.3.2 Open and Distance Learning

The advent of new technologies during the First World War saw the first significant improvement to the correspondence model with the use of early radio and later television transmission, though more recently the use of audio and computer conferencing has impacted significantly on studies in the area (McIsaac & Gunawardena, 1996; Rossiter, 1997; Taylor, J. C., 1998).

The move from correspondence study to distance education is identified in much of the literature as occurring with the advent of the United States Distance Learning Association in 1987, despite the fact that Australia had embraced the term in 1973 (Cunningham et al., 1998). Although many definitions are provided in the literature (Daniel, 1996a; Dodds, 1995; Holmberg, 1986; Keegan, 1996; McIsaac & Gunawardena, 1996; Moore, 1990; Wedermeyer, 1981), no single definition is universally accepted (Anglin & Morrison, 2002).

According to Anglin and Morrison (2002), early definitions stated that in distance education the learner and the teacher behaviours are separated by distance *and* time. Later definitions recognised the increased use of technology for communication and suggested that learner and teacher behaviours were separated by location *or* time, a recognition that distance education had moved from self-study correspondence to a system that more resembled “traditional instruction and courses” (p161).

‘Open learning’ is also a term that has defied a universally accepted definition (Taylor et al., 1996). Initially the definition related to access to education without prerequisite qualifications, such as final year high school results, then became related to increased flexibility of education (Lewis, 1997). Most recently the term has been tied to distance education and the term ‘open and distance education’ is used to refer to this context of education, as evidenced by the addition of the term to the name of the Open and Distance Learning Association of Australasia, the national body in Australia.

McIsaac and Gunawardena (1996) claimed that the theoretical debate was focused on issues that centre on the learner at a distance, as opposed to the historical focus on organisation and media choice. They distinguish concepts such as transactional distance (Moore, 1990), interaction (Moore, 1990), control (Baynton, 1992), and social context (Vygotsky, 1978) as the keys to theoretical development and elaborate on these concepts in their chapter of the *Handbook of Research for Educational Communications and Technology* (McIsaac & Gunawardena, 1996).

Garrison (2000) in his review of the field of distance education, also noted the move from the focus on administrative and organisational concerns to one that focussed on the educational issues, which arise from learning at a distance. He saw this as the first step towards a theory of distance education, the absence of which he and others identify as a criticism of distance education (Anglin & Morrison, 2002). Wedemeyer (1971) is recognised as the leader in this move when he identified that a lack of flexibility in independent study materials restricted the choice and goals of the learner.

Later, Sherow and Wedemeyer (1990) are identified by Garrison (2000) as articulating a new direction for distance education through their proposal that a “unique system be developed for a new type of institution made possible through course design utilising media and technology and supported by counselling and resource and learning centres” (Sherow & Wedemeyer, 1990, p18). Garrison suggests that the discussion they created contributed to the development of the British Open University, whilst acknowledging the role Otto Peters had to play in developing an “industrial production model” of distance education (2000, p6).

The concept that higher education was only for the elite was swept away, particularly in the UK where The Open University (OU) was overwhelmed by new enrolments in the late sixties. Otto Peters (1994), through his analysis of the structure of distance education, identified a plan which could adopt industrial production techniques such as the division of labour, mass production, and organisation to realise economies of scale and reduce unit costs (Garrison, 2000). Initially teaching and learning issues were subservient in this industrial model to the structure and organisation. However, 1997 figures indicate that OU staff were amongst the world leaders in research into the areas of pedagogy and educational technology (Masterton, 1999). At the Open University subject development occurs in teams with more than 10 million pounds spent on staff development over five years (Laurillard, 1998). By 2000 the OU had over 200,000 students nationally and had expanded significantly into the overseas market, most recently through cooperative enterprises and relationships with overseas institutions (Masterton, 1999, Gunn, 2001a).

The lack of theoretical frameworks and models in the literature of open and distance education is the greatest hindrance to explaining and anticipating practices for the broad range of emerging educational purposes and experiences. Much of the literature in the field focuses on the delivery technology and educational outcomes with a distinct bias towards success stories and little discussion of failures or shortcomings (Caladine, 1993; Taylor et al., 1996). Garrison (2000) challenged researchers in the field to “provide an understanding of the opportunities and limitations of facilitating teaching and learning at a distance with a variety of methods and technologies” (p13).

Concurrent with the changes in distance education were changes in campus-based teaching and learning. The focus on student learning combined with the increased use of technology provided greater flexibility to meet the needs of the increasing numbers and the more diversified student body.

2.3.3 Flexible learning

‘Flexible delivery’ and ‘flexible learning’ are key terms identified in the literature as an approach universities used to meet this demand. Although ill-defined and employed interchangeably, the terms were used across the sector to imply a shift from traditional face-to-face lecture/tutorial format of teaching to a more student-centred approach that provided greater student choice in terms of time and place of learning (Moran, 1996; Taylor et al., 1996). They included many other dimensions of flexibility such as entry and completion requirements, pace, content, instructional approach, learning resources, and technology use (Collis, 1998; Collis & Moonen, 2001; Moran, 1995; Nikolova & Collis, 1998; Nunan, 1996; Thomas, 1995). The term flexible delivery focused more on the choice of resources and appropriateness of the delivery medium, including technologies used. The term flexible learning was adopted to reflect an increasing emphasis on student choice and control of the learning process in order to improve learning outcomes.

Flexible learning is identified in much of the literature, especially government commissioned reports, as a panacea to the problem of providing cost-effective access to education for more students (Mitchell & Bluer, 1997; Moran, 1996; Tinkler et al., 1996). It is perceived as a means of providing a quality education at a time and place that suits the immediate needs of many students who have had limited access to higher education. Limitations are not just for geographic reasons but also due to unsuitable lecture hours, difficulty accessing campus, family commitments, and physical disabilities (Moran, 1996).

It is not a new concept, though the terminology may be different, as indicated by this extract from the Sydney Evening News of 25 September 1883.

At a public meeting under the chairmanship of Mr George Reid, Dr Robert Steele moved a resolution for the establishment of evening classes in the University of Sydney (the purpose for which the meeting had been convened). Dr Steele supported his motion with these words: 'The University was not confined to its walls or halls – however much those of them who had been there liked to look upon those revered walls where they had worn the gown. Nor was the University so confined to canonical hours that it would only teach within certain prescribed times, when many people could not attend. That he took to be the great principle of any university instruction, that it ought to adapt itself as much as possible to the people, and if Mahomet could not go to the mountain, they must try to bring the mountain to Mahomet. (NBEET, 1992, piii)

Hedberg and Corrent-Agostinho (2000) suggest that flexibility bridges the gap between distance and on-campus education through the provision of “substantially the same teaching materials and learning experiences” (p83). They identify five discourses in the literature (see for example, Jonassen, Mayes, & McAleese, 1997; Kirkpatrick, 1997) that characterise flexible learning as providing:

1. *Efficiency*: A perceived pressure by some academics to teach more students with declining resources;
2. *The competitive edge*: As identified above it is incorporated in the strategic plans of many universities and in government commissioned reports;
3. *Equity and Access*: improving opportunity to access university study and equality in educational outcomes;
4. *Information and Communication Technologies*: whilst technology does not equal flexible learning, many flexibly-delivered subjects incorporate some form of technology;
5. *A strategy to improve the quality of the learning experience*: supported by changing views of learning theory and the impact of constructivism as a major philosophical approach to learning.

The concept of flexible learning highlighted the blurring of on-campus and off-campus modes of delivery and the necessity for changed practice to meet the changing needs of students in the future. Subjects may be flexibly delivered in distance and campus-based learning environments, drawing the contexts closer together. 'Distributed learning' is the term used to describe this convergence of the teaching and learning context.

2.3.4 Distributed learning

A distributed learning context provides opportunity to use aspects of flexible learning, though sometimes the terms are used interchangeably in the literature. Some studies report on the impact of new technologies and the resultant changes to teaching and learning within institutions, using a flexible learning approach, demonstrating that teaching and learning methods used for distance education and campus-based education have converged (Collis & Moonen, 2001; McNaught, Kenny, Kennedy, & Lord, 1999). Conference proceedings in recent years have provided much descriptive evidence of subject and course development in these related areas, (see Educational Multimedia, Hypermedia and Telecommunications (EdMedia) and Australasian Society for Computers In Learning In Tertiary Education (ASCILITE) conference proceedings, 1995 – 2000), however, research-based evidence of their effectiveness is scarce (Alexander & Hedberg, 1994; Reeves, 1995; Reeves, 2000).

Distributed learning is identified as a context of teaching and learning which blurs the boundary of campus-based and distance education. It focuses on learner needs, and provides opportunities for faculty and students to enter the learning environment at different times from different locations. It also integrates traditional institutional functions such as teaching spaces and library facilities (Oblinger & Maruyama, 1996). Oblinger and Maruyama (1996) identified a model for distributed learning, which focused on the student as the conceptual centre of the educational process, with more flexible access to information and people. They compare this to a traditional model that has the institution as the centre of the model where the student moves from place to place or person to person. They contend there are three major factors that vary across the model: the teacher's role and concepts of place and time.

They suggest that for universities to create such an environment they “must address both human and technological issues through planning, institutional support, and technology architecture” (Oblinger & Marayama, 1996, p6). Although they argue for a student-centred environment, they do not acknowledge the significant change in the student’s role in this model, and this should be considered as another major factor. Whilst the model has shortcomings, it is still a useful contribution towards a definition for distributed learning.

Dede (1995) took a futuristic outlook on distributed learning, predicting that eventually all teaching will have some form of distance education through the identification of four new forms of expression. He distinguishes distributed learning as requiring:

- knowledge webs, to complement instructors, libraries and archived information;
- virtual community interactions, to complement those in classrooms;
- synthetic environmental experiences, to extend real world settings; and
- immersion of the senses so learners can grasp reality through illusion. (Dede, 1995, ¶ 6)

Dede’s elaboration and a later case study of a postgraduate subject, written with associates, provides a better understanding of the context of distributed learning, particularly the role technology can play in supporting such an environment (Dede, 1995; Dede et al., 2002). They concluded that students felt that solely online interactions did not support their learning well, but that more than half of their students did not rank face-to-face interaction as their preferred medium. The work of Dede and others helps to inform the definition of distributed learning used for this study (Dede et al., 2002; Salzberg & Polyson, 1995; University of British Columbia, 1995). A distributed learning context is defined as: the combination of some face-to-face teaching with both synchronous and asynchronous interaction often mediated by technology to produce an environment for learning which is student-centred.

The approach results in the teaching and learning activities being dispersed across a number of settings, such as the libraries, access centres and campuses and the student’s home; across time; and through a variety of technologies, including print, videoconference, and online tools. Distributed learning is distinguished from distance education by the requirement that students attend tutorials at designated times throughout the semester, and from traditional on-campus teaching by the reduction of face-to-face meetings for lectures (Bates, 2001; Dede, 1995).

Although there are a number of related terms referred to in the literature such as blended learning (Collis & Moonen, 2001), mixed-mode (Bates, 2001), and networked learning (Harasim et al., 1995; Steeples & Jones, 2002), distributed learning best describes the context used for this study.

Distributed learning marks a radical shift for both distance education and campus-based education. According to Bates (2001), it is a “potentially revolutionary development” that will eventually become the dominant paradigm in higher education (p21). He suggests that “it requires radical changes to the organisation of campus-based teaching” with a focus on the application of information and communication technologies for teaching and learning (Bates, 2001, p27). For this reason a case study of a distributed learning context can inform the research in this field.

2.4 Information and communication technologies

The full potential of information and communication technology (ICT) is yet to be realised in the university sector while it is used as an add-on to traditional teaching and learning, whether at a distance or campus based. Gayeski (1989) proposed a number of reasons for this failure including technophobia, inhibition of human contact, changes to the legal and economic status quo, lack of appropriate designs and information, and reliability. She pointed out that people did not resist “technical change”, they resisted “social aspects of change” and the resultant change in their relationships (Gayeski, 1989, p7).

However, Coaldrake and Stedman (1999) believe this will change:

In contrast to the largely static nature of former technological developments, the growing power of networked computing and the convergence of information and communication technology hold the promise of enhancing communication and personal interaction, aspects of which are central to education. (Coaldrake & Stedman, 1999, p6)

Much of the early research on ICTs has focused on comparing delivery of instructional content through different media, for example, television versus the traditional classroom (see for example Schramm, 1962; Seels, Berry, Fullerton, & Horn, 1996). The comparisons only measured knowledge acquisition and failed to recognise the impact of other variables in the instruction that resulted in the “confounding of instructional method and content in media studies (Krendl, Ware, Reid, & Warren, 1996, p98).

Furthermore, the research focused on the impact of different media used to transmit information rather than the nature of relationships or the nature of interactions (Seels et al., 1996).

Clark (1983) initiated some interesting debate in his often-cited paper that questioned the research on conditions under which media influenced learning. He stated that 'media... are mere vehicles that deliver instruction but do not influence student achievement anymore than the truck which delivers our groceries causes changes to our nutrition' (Clark, 1983). This issue continued to be debated more than a decade later (see Kozma, 1994) with a special issue of Educational Technology Research and Development in 1994, and continued to provoke debate about whether researchers were asking the right questions (Ehrmann, 1997). Ehrmann provided an excellent example paraphrased from a talk by Roxanne Hiltz, who described an interesting phenomenon:

I've got two pieces of bad news about the experimental English composition course where students used computer conferencing. The first bad news is that over the course of the semester, the experimental group showed no progress in their ability to compose an essay. The second piece of bad news is that the control group, taught by traditional methods, showed no progress either. (Ehrmann, 1997, p1)

Ehrmann concurred with both sides of the debate. He suggests that research should study which teaching and learning strategies demonstrate best practice (especially those not feasible without new technologies) and which technologies best support those strategies (Ehrmann, 1997).

This focus on learning is supported by Laurillard (2002) who suggested that organisational infrastructure which focused on good teaching should be the centre for reform in higher education. Laurillard concurs with Ramsden (1992) that teaching and learning are essentially conversational and she identifies insufficient feedback on students' actions is "the weakest link" (Laurillard, 2002, p82). She provides a conversational framework to analyse "the extent to which [media] support the interpersonal and internal dialogue forms" (Laurillard, 2002, p83).

Her analysis concludes that a combination of media can be used to support student learning and that a careful subject design process dependent on the context for learning can determine optimal use. However, the learning context within a subject is influenced by contextual factors within an institution and Laurillard broadens her focus to examine the institutional context through an adaptation of her conversational framework. She points to the importance of dialogue at all levels of the institution and the necessity for the infrastructure to adapt to the changing context of teaching and learning.

Whilst many academics accept the changes as inevitable, there are some who are questioning the changes that are occurring. Some liken the impact of technology today to that of the impact of technology in the 1800s and the resultant Luddite movement, and identify economic rationalism as the reason for the change (Brabazon, 2002; Gunn, C., 2000b). “Socrates was not a content provider [he was a teacher]” stated David Noble in one of his four essays on *Digital Diploma Mills*, in which he expressed his concern about what he perceived as a system driven by economic rationalism rather than educational philosophy (Noble, 1997). Though as Berge (2000) points out:

Should Socrates live today, the educational establishment might not go so far as to require him to drink hemlock because his teaching methods have so changed the tradition of learning that they are perceived as corrupting students. On the other hand, he might not be granted tenure. (p26)

Other researchers conclude that educational philosophy should be driving change, and the move towards student-centred learning, with appropriate use of technology, gives a strategy for academics to drive this change (Collis & Moonen, 2001; Laurillard, 2002).

In the preface to her book, Laurillard affirms the view that “a university is defined by the quality of its academic conversations, not by the technologies that service them” (Laurillard, 2002). How the university supports such conversations through an increasingly changing context is the subject of the next section.

2.5 Educational change in higher education

The nature of educational change has been the focus of a great deal of literature in the field of higher education. Much of the literature on change draws on the body of work related to organisational change, for example the work of Chris Argyris and Donald Schön (1996) and the work of Peter Senge (1992).

Argyris and Schön (1996) take an inquiry approach to producing organisational learning with a focus on the thinking and actions of individuals to produce the capability of organisational learning. They suggest that productive organisational learning outcomes occur when individuals in the organisation interact to inquire into the systems of the organisation. Senge (1992) provides an example of the use of the five disciplines of systems thinking, developing shared vision, mental models, team learning, and personal mastery. He points out that “at the heart of the learning organisation is a shift of mind - from seeing ourselves as separate from the world to connected to the world, from seeing problems as caused by someone or something ‘out there’ to seeing our own actions create the problems we experience” (p12-13). He adds, “A learning organisation is a place where people are continually discovering how they create their reality. And how they can change it” (p13). The focus on organisational learning in education reflects the increased influence of the corporate world on the way schools and universities are managed, through policy and funding changes with demands for greater accountability and improvements to the quality of teaching (Gallagher, 2000; Trowler, 2002).

The earlier organisational and educational change literature focussed on two levels of change, the individual level and the organisational level (Fullan, 1981; Limerick & Cunningham, 1993). More recently, the literature focuses on another level which includes the values, culture and the impact of social groups within organisations (Fullan, 2001a, 2001b; Hannan & Silver, 2000; Senge, 1992; Trowler, 1998; Wenger, 1998; Whitely, 1995). Trowler and Knight call this the “mesolevel of social processes operating in workgroups” (2002, p143).

They identify a number of dominant discourses about change in higher education that identify the views of different theorists:

- *Contextual simplification* in higher education institutions does not recognise the complexity of the context (See for example, Becher, 1989; Bergquist, 1993; Taylor, 1999b).
- *Causal simplification* recognises the top-down technical-rational approach to change that emphasises processes of efficiency and goal or vision direction (Clark & Shattock, 1983; Fullan, 1993). This assumes “that if sufficient energy can be elicited from those involved by enthusiastic leaders with a clear vision of change then large scale transformations can be accomplished quickly and economically” (Trowler & Knight, 2002, p144). It also attributes failure to “ill-will, indolence, ineptitude or indiscipline”, which Trowler and Knight argue is not an accurate depiction of universities (2002, p144).

- *Obliteration of meaning and effect*: Since innovations get their meaning in practices, this focuses on the “personal attachment to the status quo” (Trowler & Knight, 2002, p145). Trowler and Knight point out that:
professional identity and, by referral, that part of self-identity associated with work, is bound up in practice and this emotional attachment to practice is not an aberration that should yield to rational argument or superior force. It is the way being an expert is. (Trowler & Knight, 2002, p145)
- *Contextual occlusion*: This identifies the problem with planning processes that occur “within a micro-social context that is distinct from the practices to which these planning activities relate”. Consequently, planning processes may ignore “the complexities of practice, familiar and obvious to practitioners” and the “unique set of problems and opportunities” related to the innovation itself (Trowler & Knight, 2002, p145).

Trowler and Knight (2002, p145) provide an alternative perspective of organisational change in universities, based on the complexity and diversity within and between the institutions. They point out that “values, attitudes and assumptions and taken-for-granted recurrent practices may be as different from department to department, building to building and institution to institution” (Trowler & Knight, 2002, p146). They show the importance of examining all levels of the social processes in place to understand the multiple cultures, including the individual interaction processes. They draw on social practice theory and see institutions as “constellations of communities of practice” (Trowler & Knight, 2002, p147).

Leadership and strategies for change are the focus of other researchers in examining the context of wider institutional change to support the change process in higher education (Astin et al., 2000; Birnbaum, 1999; Fullan, 2001a; Ramsden, 1998). The American Council on Education (ACE) Project on leadership and institutional change was a major venture aimed to support a group of 26 institutions that were implementing change using the institutions’ own strategic frameworks (Eckel, Green et al., 1999; Eckel, Hill, & Green, 1998; Eckel, Hill, Green, & Mallon, 1999; Hill, Green, & Eckel, 2001).

They did this through the provision of “useful tools, concepts and vocabulary” and through the engagement of participants in “learning about change together” (Eckel et al., 1998, piii).

Advocates of radical change in higher education suggest that what is required is to overhaul the system in order not just to do more with less, but to change what a university does. The more conservative view suggests that all aspects of universities are constantly changing and that this must continue within existing frameworks because of their history and their grounding in research and scholarship (Eckel et al., 1998, p2).

A third view, which the researchers put forward, was a notion of *transformational change*. This is based on an assumption that:

university administrators and faculty will alter the way in which they think about and perform their basic functions of teaching, learning and service, but they will do so in ways that allow them to remain true to the values and historic aims of the academy. (Eckel et al., 1998, p3)

Eckel and associates (1998) contend that this will produce visible changes such as changed priorities, allocation of funds, alternate teaching methods, structures and relationships, but also recognition for “their continuity of mission” (Eckel et al., 1998, p3). They provide a working definition of transformational change that it:

1. alters the culture of the institution by changing select underlying assumptions and institutional behaviours, processes, and products;
2. is deep and pervasive, affecting the whole institution;
3. is intentional; and
4. occurs over time (Eckel et al., 1998, p3).

The research study of 26 institutions provided a number of insights on implementing intentional change by proposing strategies for institutional change that can inhibit or promote change (Eckel, Hill et al., 1999 p1-9). The authors contend that there are actions that a university can control for a successful initiative, which include useful strategies to support the change and missteps to avoid during this complex process.

The complexity of the educational change process, whilst recognised in the literature, was not reflected in the available models for implementation. Early models such as that of Becher and Kogan (1980) identified a framework that acknowledged the importance of examining how change was implemented at the level of the institution, the faculty, and the department or program, since, unlike some corporations or government departments, there is a level of autonomy in each of these groups.

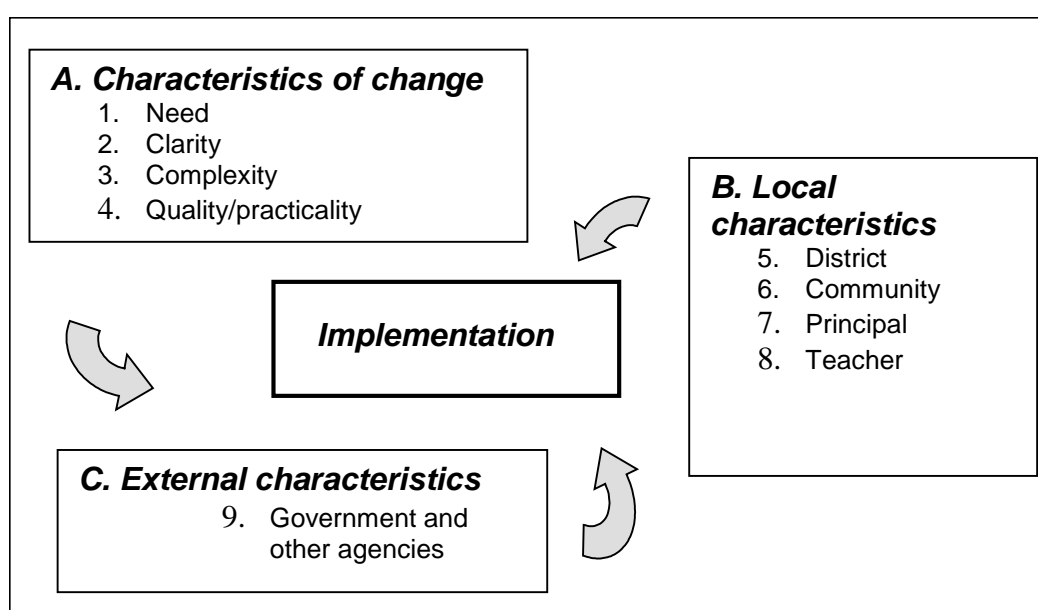
There are three broad phases of change that are identified in the literature: initiation, implementation and institutionalisation. The initiation phase involves the planning that leads to the adoption of the change. The implementation phase, usually the first few years of use, covers the time when the initiative is first carried out. Fullan (2001b) defines this phase as consisting “of the process of putting into practice an idea, program, or set of activities and structures new to the people attempting, or expected to change” (p69). The institutionalisation phase occurs when the initiative has become part of the routine of the organisation or has ended. Fullan (2001b) points out that this is not a linear process, but a dynamic one that frequently involves revisiting each phase during the process.

The literature on educational change identifies the difficulties of initiating change, and Fullan (2001b) states that the main dilemma is “whether to seek majority agreement before proceeding versus being more assertive at the beginning” (p66). He points to the lack of evidence that “widespread involvement at the initiation stage is either feasible or effective” and suggests that for initiation to occur it requires impetus for action (Fullan, 2001b, p91). He cautions that a top-down or assertive approach can be successful providing it is blended with “empowerment and choices as the process evolves”, and that ownership will develop over time provided the ideas for the initiative are good and the people involved “have the capacity and opportunity to make informed judgements” (Fullan, 2001b, p67).

Ellsworth (2000) takes a system view of change and stresses the importance of applying different models to different stages of change, referring to them as a toolbox from which to draw. In his framework for a change communication model, he suggests seven components of the toolbox and identifies key authors and their frameworks or models. These include innovation (Rogers, 1962), environment (Ely, 1976, 1990), change agent (Fullan, 1981; Fullan, 2001b), change process (Havelock, 1973; Havelock & Zlotolow, 1995), intended adopter (Hall & Hord, 1987; Hall, Wallace, & Dossett, 1973), resistance (Zaltman & Duncan, 1977) and system (Reigeluth & Garfinkle, 1994). There is some overlap among the models for example, Fullan (2001b) and Havelock and Zlotolow (1995) both stress the change process and the role the stakeholder or change agent plays at all levels.

One well-known and respected model for educational change in the toolbox is Fullan's model of factors affecting implementation (Fullan, 1981; Fullan, 2001b; Fullan & Stiegelbauer, 1991). For this study, the researcher deemed Fullan's model, which focuses on the process of change and the impact of change agents during implementation, to be the most pertinent component of the toolbox to frame the discussion of implementation. It is useful because it focuses on the participants in the change process, and as such meets the need of this study to investigate the implementation process.

Although the model presents a focus on the school sector, it is well suited to the complexities of higher education, most importantly because Fullan (2001b) illustrates that change is a process not an event, attributing the failure of many educational reforms to poor attention and support at the implementation stage. His model, shown in Figure 2.2, highlights the interactivity among the external factors, the characteristics of change, which include the need, clarity, complexity and quality of change, and the local characteristics such as work units and the individuals responsible for implementing the change.



(Fullan, 2001b, p72)

Figure 2.2: Interactive factors affecting implementation

2.5.1 Characteristics of change

In the early implementation stage the 'need' for the change may not be seen as a priority by those required to implement the change, especially if there are many competing changes in the work environment. Therefore, the need must be seen to be significant and there must be some evidence of progress towards the goal. Fullan (2001b) notes "early rewards and some tangible success" are required for people to continue with implementation (p76). A common problem in the change process is the 'clarity' of the vision, that is the goals of the innovation and the means by which they will be achieved (Fullan, 2001b). Anxiety and frustration are the result of lack of clarity. 'Complexity' is interpreted as the degree of difficulty and the depth of change a person must make to implement the innovation and this can vary depending on where the person or group starts. Fullan (2001b) suggests that, "change can be examined with regard to difficulty, skill required, and extent of alterations in beliefs, teaching strategies, and use of materials" (p78). The 'quality and practicality' of the initiative is largely determined by the attention paid at the adoption stage and the preparation in terms of planning and resource allocation for the implementation. However, "ambitious projects are nearly always politically driven. As a result the timeline between the initiation decision and when it starts is often too short to attend to matters of quality" (Fullan, 2001b, p79).

2.5.2 Local characteristics

This stage of the model examines the "social conditions of change" and looks at the setting, the 'planned and unplanned events' that will determine the success of the implementation (Fullan, 2001b, p80). Fullan points out that this is frequently determined by how well the organisation supports the cultural change and the strategies it establishes to do this.

2.5.3 External characteristics

This stage recognises that change in education is within a broader context of society. The ability of government agencies to create a balance between forcing and supporting change influences its implementation.

Fullan points out that successful innovations occur when “they combine good ideas with good implementation decision and support systems” (Fullan & Stiegelbauer, 1991, p112). Furthermore, Sarason (1990) contends that for this to occur, there is a need to focus on the culture of local systems. She contends that even good ideas may not be implemented “because the process of implementation requires that you understand well the settings in which these ideas have to take root. And that understanding is frequently faulty and incomplete” (Sarason, 1990, p61). Fullan argues further that the critical factor in change is “the uniqueness of the individual setting” and “what works in one may not work in others” (Fullan, 2001b, p49). He suggests that research findings should assist others to ‘make sense’ of the various strategies to plan, implement and evaluate change (Fullan, 2001b).

Consequently, this study focuses on the settings in which the initiation and implementation took place and the decision and support systems that the institution established in order to assist others to make sense of the implementation.

2.6 New environments for teaching and learning

There are a small number of related research studies in the areas of distributed and flexible learning that are relevant to this study, though many descriptive studies exist that provide valuable insight into the changes taking place in the field. The following sections review international and Australian studies by focusing on specific institutions and their relationship to the current study.

2.6.1 International studies

Experiences at the University of British Columbia (Bates, 1997), and the Simon Fraser University (Harasim et al., 1995) are examples of such studies in Canada. Both institutions form part of Canadian TeleLearning Network, which was a collaborative project involving close to 130 researchers in 30 institutions from 1996 to 2002 with a large budget (Campos & Harasim, 1999).

The goals of the postsecondary arm of this network were to “to design and evaluate networked learning environments to support post-secondary courses, and to develop both discipline-independent and discipline-specific tools and approaches to support advanced models of learning” (Campos & Harasim, 1999, p1). Harasim (2000) and her team conducted comprehensive field trials of an online learning environment with over 400 courses taught by 250 faculty and over 15,000 students.

They support an active model of learning that engages students in conversations. Major findings of the studies have indicated that online instructors face a high initial workload as they develop new skills and that this reduces when the course is repeated. For students the major challenge was network difficulties and lack of confidence about the appropriateness of messages sent, indicating a need for early feedback. The studies concluded that educational design of the learning experience integrated with appropriately designed technology could provide advantages for student learning through the use of collaborative techniques (Harasim, 2000). Whilst the focus is different to the current study, the studies make a major contribution to the field in terms of the use of technology for collaboration and communication, an aspect of distributed learning (see for example Bereiter, 2003; Campos, Laferrière & Harasim, 2001).

The experience of the British Open University is also well documented in the literature as various studies have evaluated the implementation of open and distance learning environments (Eisenstadt & Vincent, 1998; Laurillard, 2002; Mason, 1999; Wade, 1994). Implementations have been investigated in the context of computer education subjects, though more recently this focus has expanded to other disciplines with an increased focus on flexibility and the use of technology for communication and collaboration (Mason, 1998, 2000, 2002; Salmon, 2000). The studies are different from this study because the Open University has always been a distance education university with a focus on distance learners so the studies do not examine the aspects of change required in a campus-based institution.

At the University of Twente in the Netherlands, Collis and associates report a systematic approach to implementing flexible learning strategies at the university that includes the identification of a three-phase progression that faculties follow to use technology in their teaching (Collis, 1998; Collis & De Boer, 1999; Collis, Winnups, & Moonen, 2000; Nikolova & Collis, 1998). Their focus is on web-based courses for on-campus and off-campus students, and they use strategies to embed tools in subjects at all levels. They believe the key to success is their integration of technology, strategy and pedagogy. One of their studies (Collis & De Boer, 1999), which investigated the expectations and experiences of students, indicated that students expected to have concerns with time management and dependence on technology. The expectations were confirmed in the off-campus mode, but were not in the on-campus mode. Problems with networks were experienced and the difficulty of finding information was not as big a problem for off-campus students as they expected, but was worse for on-campus students.

Collis and Moonen's book (2001) describes major reform of an institution through a model for change, stressing the need for a top-down/bottom-up approach in more detail than the earlier study. Their findings indicated the importance of a leader for implementation who has "practical and personal experience" of the initiative, not the "managers and central-support unit directors who are typically given project responsibility" (Collis & Moonen, 2001, p60). They discuss the need for staff engagement and identify the need for a balance between "sufficient administrative stimulation and too much for academic acceptance" (Collis & Moonen, 2001, p61). Collis and Moonen identify eighteen lessons learned from the experience as the initiative moved through initiation to implementation then to institutionalisation. They describe the challenges the institution faced and make a number of recommendations to improve practice at all levels. Two recommendations to those responsible for implementing such initiatives are particularly relevant to the current study:

1. Pay more attention to the human aspects of implementations than to the technical.
2. Plan instructor support around a just-in-time model and tools to support this. (Collis & Moonen, 2001, p204)

Their study provides a comprehensive overview of a large-scale change initiative for flexible learning incorporating the use of technology across a university. Their recommendations provide valuable insights for the current study, which was conducted before the book was released, and they provide a useful international perspective with which to compare the findings of the current study.

The University of Central Florida reports on an institutional initiative to implement distance and distributed learning as part of a wider institutional evaluation of implementation of distributed learning (Hartman, Dziuban, & Moskal, 1999; Hitt & Hartman, 2002; Sorg et al., 2000). The purpose of the move to distance and distributed modes was to address the needs of an increased number of students and the lack of physical space to support this increase. The university uses distributed learning to reduce face-to-face time for on-campus students whilst emphasising "student-centred active learning" (Hartman et al., 1999, p3). In another article on the initiative, Sorg and associates (1999) compare their implementation model with that used at the University of Twente, whilst pointing out the differences in the model including voluntary participation by staff.

They identify the keys to the implementation as the need for faculty support, including time, resources, expertise and organisational arrangements, and technology support as well as a range of student support. Reports at this stage are mainly descriptive and further research-based reports are required to expand on the implementation in the institution.

Whilst international studies of institutions implementing distributed or flexible learning approaches indicate that research in the field is developing, many focus on distance education or technology-based initiatives, through large-scale, well-funded institutional change. The next section reviews specific studies in Australia.

2.6.2 Australia

In Australia, the majority of universities are involved in some form of flexible or distributed learning, unfortunately without the major funding initiatives that are evidenced in Europe, Canada and the United States (Taylor et al., 1996). Empirical studies of such initiatives are not well reported in the literature and are often confidential to the institution. However there are many valuable, smaller studies that give insight into the changes occurring in a number of institutions (Agostinho, Lefoe, & Hedberg, 1997; Chalmers, 1999; Gosper & Rich, 1998; Gunn, 1999; Hedberg & Corrent-Agostinho, 2000; Kirkwood & Ross, 1997; Oliver, Omari, & Herrington, 1998).

A DETYA commissioned report examined policy and practice in a number of non-metropolitan universities to determine the range of flexible learning models used in Australia (Ling et al., 2001). The report provides ten case studies of Australian institutions. The data were obtained largely through self-reporting though within a framework provided by the authors requiring supporting evidence from policy and other documents from the institution. However, the report does not draw on the perceptions of students and academic staff or discuss methods of implementation, both of which are the focus of this study. The report examined the flexibility, effectiveness and costliness of flexible provision of courses and concluded that many of the models in use were effective and flexible. However, it was difficult to determine the cost effectiveness because many of the innovations were still in the early stages. The report provides insight into the range of models in use and the importance of institutional context for flexible provision of courses, and suggests, “further research and evaluation of learning processes and learning outcomes associated with flexible provision of higher education is required” (Ling et al., 2001, pxx).

The Ipswich campus of University of Queensland, opened in 1999, and the Logan Campus of Griffith University, opened in 1998, are two examples of institutions that have established satellite campuses, which used flexible teaching and learning methods from the beginning. The Ipswich study identified a model for implementation in such a campus but at this stage there are no published reports of an evaluation, which began in 1999 (Chalmers, 1999).

Chalmers' description of implementation at the Ipswich campus is linked with the model of implementation used in the University of Twente with the identification of the five aspects of pedagogy, technology, culture, organisation and implementation as critical to success. Chalmers also indicates an agenda for change for the university as a whole with the intention of 'mainstreaming' the innovation at the main campus.

A comprehensive report on the Logan Campus of Griffith University identifies lessons learned in the first four years of operation of this new campus (Taylor & Blaik, 2002). The campus used a flexible approach to teaching and learning with significant institutional support for the development of learning materials and teaching strategies for student-centred learning. The report identified a successful start, though "academic staff are less convinced of the value of flexible learning than are members of the general staff, while graduates hold the most positive views" (Taylor & Blaik, 2002, p4). The report also identified significant changes to the roles and workloads of staff and students, a need for increased support for both groups and better ways to reward staff for their involvement. While there are a number of permanent staff located at Logan, many academic staff travel between campuses to provide workshops for students, creating communication problems with students. Taylor and Blaik (2002) express concern for the sustainability of the program and make recommendations for improving practice and ensuring teaching and learning reflect the policies of the institution. They question the direction of the campus, "as pioneering gives way to less personalised, proactive and optimistic practices, and as thinking and decision-making become more routinised and bureaucratised" (Taylor & Blaik, 2002, p6).

Several small studies of aspects of the Logan Campus of Griffith University have been reported. Gilbert (1999) for example, examines the student experience of a flexibly delivered Arts subject. The small study of seven self-selected students analysed student responses to the learning materials available. The findings indicated the necessity to integrate the use of technology with other teaching strategies, that assessment should be integral to the content and that technology should be used only when effective and incorporated in the learning design.

The study also indicated that students must have access at their preferred place of study (be it at home or at an alternative campus). The small sample size does not allow for generalisation to other subjects, courses or campuses, but the findings are consistent with earlier research. Another study at the Logan Campus (Fowler & Branch, 2000), addressed a problem of student dissatisfaction with level of contact with staff. It led to the development of an innovative student support structure in one school involving a common time for students and staff to meet informally. The study found benefits for staff and students that included increased contact and collaboration, and reduced faculty time required for individual consultation.

The Logan Campus initiative provides a context for flexible learning that is different to the present study. The lessons learned are specific to the context of a larger new campus with different organisational implementation efforts, and the focus differs in that the major report looks towards the institutionalisation of the flexible learning initiative and does not focus on specific courses. The current study investigates the first year of implementation of a distributed learning environment and includes access centres as well as a new campus. At the organisational and faculty level, this requires the management of student learning concurrently at three distant locations, and for some subjects, students at the main campus as well. Thus, further research is required to identify the impact of contextual elements on implementation of such initiatives, the support required and the impact on faculty and students.

2.7 Relevance of the literature to this study

This chapter has reviewed the literature on pedagogical change in higher education and has identified the current research base for new contexts in teaching and learning. The following gaps in the literature are identified in this review:

- There is little research that examines distributed learning contexts from a holistic perspective, providing insights at the organisational, faculty and subject level.
- Little is known about initiating and implementing change in the higher education sector for the establishment of new teaching and learning environments in satellite campuses.

There is a need to determine how institutions can best support such change to ensure it does not have a detrimental impact on staff and students. This study addresses these gaps. The next chapter provides the research methodology for the study and the rationale for a qualitative approach.

Chapter 3

Methodology and research design

3.1 Introduction

This chapter defines the approach adopted by the researcher and provides a description of the case study methods used. It presents the rationale for the qualitative research approach through an overview of the related educational research literature. Furthermore, it discusses the method of data collection and describes the methods employed for organisation and analysis of the data used to inform the themes and categories. The chapter concludes with a discussion of the limitations of the study and verification of the procedures used for the study.

3.2 Overview of the study

The aim of this study was to identify how the students, tutors and subject coordinators experienced the first year of implementation of a Bachelor of Arts degree in order to describe their experience of teaching and learning in a new learning environment. The researcher investigated the development process within the institution and sought to identify the stakeholders' perceptions of the implementation. The study also investigated how the institution supported the implementation process and the implications this had for policy and practice.

3.3 The characteristics of this study

The study is essentially qualitative in nature, but includes survey data. It draws on the participants' perceptions for an understanding of the phenomenon. The researcher was the primary instrument for data collection and analysis, which involved fieldwork, inductive research strategy, and provided a rich description through the words of the participants. Since the focus of the study was on the implementation of a new degree program in a new learning environment, qualitative case study methods were deemed most appropriate because of the complex context-specific nature of the study. This approach was the most suitable one due to:

- the context of the case;
- the process of development; and
- the uniqueness of the implementation to this institution.

The perceptions of participants in this case may be quite different to the perceptions of those in other cases, since their context is different. As the focus is on the process of development and implementation that was particular to the context, it is necessary to view the process through the records and documents of the institution and through the eyes of those involved, in order to understand the experience. The purpose of this study is to improve institutional processes to support further development of the Arts degree and to identify ways to improve policy and practice to best meet these needs. Therefore, the study requires a focus on the specific context to increase understanding of the case.

The following sections of this chapter place this study within the educational research literature, specifically in the area of qualitative case study research, and provide further justification for the approach chosen. Whilst case study research can be conducted within both quantitative (Yin, 1994) and qualitative (Merriam, 1998) methods, for the purpose of this study, a qualitative approach is chosen because of the exploratory nature of the study, though quantitative data were collected through subject surveys. The argument for placing this study within a qualitative framework is developed, and followed by discussion of case study research. The design of the study is then explained through the context, methods and procedures used.

3.4 Qualitative research

Qualitative research is a term that encompasses a number of inquiry processes including biography, ethnography, phenomenology, grounded theory, and case study (Creswell, 1998). It embodies a key philosophical assumption that “reality is constructed by individuals interacting with their social worlds” (Merriam, 1998, p6). Underpinned by a need to understand and explain the “meaning of social phenomena,” qualitative inquiry aims to achieve minimal disruption to the natural setting (Merriam, 1998, p5).

Throughout the literature, there are a number of processes identified and often discussed as if they are interchangeable. Interpretive, inductive, naturalistic research, field study, ethnography, participant observation and case study are all terms identified by Merriam (1998, p5) though up to forty qualitative types or approaches are acknowledged. Creswell (1998, p3) clarifies the various types of qualitative research by stating that diverse disciplinary perceptions influence the research approach used.

He states that by understanding the traditions from which the method is drawn a researcher is able to create a rigorous and informed choice for research design. From this Creswell defines qualitative research as:

An inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyses words, reports detailed views of informants, and conducts the study in a natural setting. (Creswell, 1998 p15)

He further states that his definition is similar to Denzin and Lincoln's (1998) but differs as they focus more on "sources of information" whilst his focus is more on creating "a complex, holistic picture" (Creswell, 1998, p15). For this study, case study methods are used within the methodology of qualitative educational research to create a holistic picture of the implementation.

3.5 Case study

Case study research is interpreted in various ways in the research literature. Although case study is identified as a research methodology (Weiss, 1998; Yin, 1994), it has also been described as an object to be studied (Stake, 1995; 1998) and as an end product (Merriam, 1998). Louis Smith's definition (1978) of a case as a "bounded system" is evident when examining various definitions for congruence (Merriam, 1998; Miles & Huberman, 1994; Stake, 1995; Yin, 1994). For example, Merriam (1998) defines a case study as "an intensive, holistic description and analysis of a single instance, phenomenon or social unit" and adds that it is a "bounded system" (p27). The boundary determines in effect what will be studied and what will not be studied as part of the case, providing limits for the researcher since the researcher cannot "study everyone everywhere doing everything" (Miles & Huberman, 1994, p27).

The researcher may study a case because of its uniqueness, an intrinsic case study, or to focus on an issue, an instrumental case study. An *intrinsic case study* is undertaken to achieve a better understanding of the case, because the case itself is important. An *instrumental case study* is undertaken to examine a particular issue or to refine theory. When an instrumental case study examines a number of cases, it is a collective case study (Stake, 1998). The intrinsic case study researcher develops an understanding of "what is important about the case in its own world, not so much the world of researchers and theorists, but developing its issues, contexts, and interpretations" (Stake, 1998, p99).

In the context of this study, case study is used as a research method (Merriam, 1998) and as a report format (Guba & Lincoln, 1981). It is the most appropriate method to use because the focus was on the uniqueness of the implementation and the researcher's interest in the case. It is an intrinsic case study. The 'heart' of the case is the implementation of a new Bachelor of Arts degree. The case is bounded by time (the first year of a new program implementation) and by location (the implementation sites) in order to inform practice for the following years of the program.

The case is developed through 'a thick description' of the implementation process from the perceptions of the core stakeholders (Geertz, 1973). Through analysis and interpretation of the perceptions, it makes recommendations to improve the process (or to modify practice) during further stages of the implementation beyond the first year. However, despite its strengths, the case study does have limitations, and both strengths and limitations are discussed to build on this rationale.

3.5.1 Strengths and limitations of case study

The strengths of case study research make it particularly useful in applied social science areas such as education:

Educational processes, problems, and programs can be examined to bring about understandings that in turn can affect and perhaps improve practice. Case study has proven particularly useful for studying educational innovations, for evaluating programs, and for informing policy (Merriam, 1998, p41).

A number of strengths and limitations have been identified in the literature on using case study. Case study is chosen when it is the most appropriate way to address the research problem and can play an important role in advancing the knowledge base of a field. It offers a way to investigate multidimensional social units with many variables that may enhance conceptions of a phenomenon and is useful for examining process where characteristics of the context can be identified to support understanding (Merriam, 1998). Since it is a real-life situation, a detailed account of the phenomenon can be provided that offers insights to expand the reader's experiences. These insights may assist the structuring of hypotheses for future research, which is particularly useful for understanding new research areas (Merriam, 1998).

The case study report format is most useful because it enables the use of thick description, is “holistic and lifelike”, and provides an experiential perspective (Guba & Lincoln, 1981, p376). It simplifies and focuses the data, points out the essentials in a well-integrated way, and builds on the “tacit knowledge” of the reader, using “natural language” (Guba & Lincoln, 1981, p376).

Through reading the account, the reader “comes to know some things told, as if he or she had experienced them” (Stake, 1998, p94). Stake points out that through this process of raising “awareness and understanding” or “naturalistic generalisation”, the researcher helps the reader to construct knowledge (Stake, 1998, p94). He suggests that through reading the case study report, readers make links with their own knowledge and understandings of similar cases and that through their interpretations knowledge is “socially constructed” (Stake, 1998, p95).

In some case studies, the strength can also be a limitation (Merriam, 1998). Limitations of case study research may include time and cost, length of report, oversimplification or exaggeration, the investigator's sensitivity and integrity, ethics, bias and the political nature of case study (Guba, 1981; Merriam, 1998). Whilst a researcher may want a rich, thick description and an in-depth analysis of the case, the availability of both time and money may be a constraint. In addition, a lengthy report may not be read or used by those for whom it is intended. Even if it is read, the reader of a case study report may reach the wrong conclusions if it appears to oversimplify or exaggerate the situation since a reader may interpret the study as definitive rather than ‘a slice of life.’ Walker emphasises that “Case studies tell a truth but not *the* truth. They may offer certain claims to truth, depending on the nature of the evidence they provide, but they are always partial accounts; constructions of reality; representations” (1986, p115, original italics).

Since the researcher is the main instrument of data collection, another limitation is the “sensitivity and integrity” of the researcher which can be related to the limited guidelines and training available in the literature to novices in the method (Merriam, 1998, p42). Perhaps the most important limitation is that of ethics, for example, ensuring the anonymity of participants, disclosure (or not) of purpose, and bias, since a researcher can use the data available to illustrate almost anything required and must be aware of his or her subjectivity and power relationships. Power relationships are important in educational studies, particularly where those with power fund the study. Furthermore, there is frequently discrepancy between what people think they are doing and what they say they are doing.

Revelation of these discrepancies can create both personal and political dissonance (See, for example, Guba & Lincoln, 1989; MacDonald & Jenkins, 1979). For the researcher, conducting the study within the context of her employment, there are political issues and power relationships that provide limitations to the study, which it would be imprudent to pursue because of the impact on her work within the institution.

As a result, the issue of subjectivity, both of the researcher and of those interviewed needs to be addressed usually through strategies to improve reliability, validity, and generalisability (Merriam, 1998). These limitations or issues as they relate to this study will be examined more fully in the data analysis section of this chapter.

3.5.2 Rationale for case study

The case study design was chosen for this study to develop an in-depth understanding of the implementation of the new degree and to gain insight from those involved in this implementation. The focus of the study is on the process of the implementation rather than on specific outcomes, such as student results or satisfaction. The study examines the whole context rather than a specific variable, and seeks to discover rather than confirm existing hypotheses (Merriam, 1998). In this study, the educational program is studied to understand the dynamics of the development and implementation process. Measurement of the program's success alone will not provide the understanding required for improving the implementation process. Instead, a holistic account of the first year through the eyes of those involved in the educational program is required to inform future developments of the program. Therefore, the case is studied to learn more about this particular context. The researcher is intrinsically interested in this case because of her role in the development and implementation and in staff and curriculum development processes in the new degree (Stake, 1998, p88).

For this study, case study methods provide the best way to understand how the program was implemented in the context of this new learning environment. They present opportunity for a rich, holistic account to describe how the program was experienced through the observations of the participants. The study offers an account of the first year of the program that the reader could use to develop 'naturalistic generalisations' of the phenomenon, placing the study within the qualitative research tradition (Creswell, 1998; Firestone, 1993).

3.6 Data collection and analysis

Data collection and analysis occur simultaneously in qualitative research and reflect an iterative process (Merriam, 1998). Whilst this chapter treats them separately for the purpose of explanation, the processes involved are intertwined with analysis occurring from the first data collected, assisting with the “refinement or reformulation of questions” and continued throughout the collection and analysis process (Merriam, 1998, p151).

3.6.1 Data collection

Qualitative data offer insight into “naturally occurring, ordinary events in natural settings” and provide the basis for the rich, thick description used in case study research (Miles & Huberman, 1994, p10). The data collection involves a “series of interrelated activities aimed at gathering good information to answer emerging research questions” (Creswell, 1998, p110).

Data collection in a qualitative inquiry includes three main sources: interviews, observations and documents, and although the researcher makes choices about what information is needed and how best to collect it, in case study research all three are generally included (Merriam, 1998; Patton, 1990). Patton (1990) expands on the three. He includes “direct quotations” from the participants about the experience, “detailed descriptions” of the actions and interactions of those involved, as well as related “organisational processes”; and “document analysis” of records related to the case including “organisational... records, memoranda and correspondence; official publications and reports; personal diaries; and open-ended responses to questionnaires and surveys” (Patton, 1990, p10). Creswell (1998) also expands on these three to include audio-visual data such as video and audio recordings, a distinction which Yin (1994) also makes though he calls them physical artefacts.

All point to the importance of collecting data that will answer the emerging research questions, a process interrelated with the analysis, which is discussed in Section 3.7.5.

3.6.2 Data analysis

Qualitative research produces a large volume of data, which can lead to “data overload” for the inexperienced researcher (Miles & Huberman, 1994, p2). Before the 1990s, novice and experienced qualitative researchers had little guidance for methods of analysis which led to criticisms of the use of “insight, intuition, and impression” (Dey, 1995). Whilst quantitative methods had clear conventions for use, methods of analysis were not clearly formulated for qualitative researchers, leaving little protection “against self-delusion, let alone the presentation of unreliable or invalid conclusions to scientific or policy-making audiences” (Miles, 1979, p591).

In more recent times the tacit knowledge about the process of analysis is explicated in more research reports and texts aimed at sharing this knowledge of analysing data through “explicit, systematic methods” which are used to draw conclusions and test them (Miles & Huberman, 1994, p2). Miles and Huberman’s highly regarded sourcebook details methods for qualitative analysis which are supported by others who provide guidance on analysis methods (Boyatzis, 1998; Constatas, 1992; Creswell, 1998; Denzin & Lincoln, 2000; Gibbs, 2002; Merriam, 1998; Miles & Huberman, 1994; Patton, 1990; Strauss & Corbin, 1990; Wolcott, 1994). There are some methods which focus specifically on case study analysis (Gillham, 2000; Merriam, 1998; Stake, 1995; Stake, 1998; Yin, 1994).

Whichever method of guidance for analysis a qualitative researcher follows, there is also a need to draw on intuition and understanding of the context for this is the nature of qualitative research. Identifying and clarifying the process provides the needed rigor and reliability. For this study, the researcher followed a process indicated by Creswell (1998), which is discussed below.

Data analysis is referred to as making sense of the data through “consolidating, reducing, and interpreting” what has been said, what has been seen and what has been read by the researcher (Merriam, 1998, p178). This process of data analysis includes “data reduction, data display, and conclusion drawing/verification”, which is a simultaneous flow of activity (Miles & Huberman, 1994, p10). Represented as an interactive model, these processes occur before, during and after data collection, concurrently with study design and early analysis through to the final report of the findings (Huberman & Miles, 1998).

Data reduction occurs as the researcher identifies “a conceptual framework, research questions, cases, and instruments” and reduction of the amount of data occurs through “data summaries, coding, finding themes, clustering, and writing stories” (Huberman & Miles, 1998, p180). Data display is “an organised, compressed assembly of information that permits conclusion drawing and/or action taking” and is required in order to form an understanding of its meaning (Huberman & Miles, 1998, p180-181). These displays can include text summaries, vignettes, network diagrams, and text-based matrices. Drawing and verifying conclusions occurs when the researcher interprets the displayed data and continuously verifies or tests that results can be related to the literature (Huberman & Miles, 1998).

The whole process of analysis is iterative and continuous through the study. This process is best presented as a spiral rather than a linear progression, and Creswell (1998) describes this as moving through analytic loops of data management, reading and memoing; describing, classifying and interpreting; and representing and visualising to produce the account of the case study. He indicates the differences and similarities amongst the traditions of inquiry used in qualitative studies, but points out that techniques will differ depending on the nature of the study.

For case study research, he suggests starting with a detailed description of the case, identifying categories that are then collapsed into key themes or patterns, and subsequently generalising about the themes and how they compare and contrast to the related literature (Creswell, 1998). The data analysis processes for this study are discussed in section 3.7.6.

3.6.3 Quality of the study

Validity and reliability of research, carried out in an ethical way, underpins the trustworthiness of both quantitative and qualitative traditions. Whilst there are well documented methods for ensuring validity and reliability with quantitative studies, judging the quality or ‘trustworthiness’ of qualitative research has been debated in the literature and could best be described as a developing field, a “complex and emerging area” (Creswell, 1998, p193).

Trustworthiness involves the issues of standards of quality and process of verification for qualitative research, and it is difficult to separate the two issues (Creswell, 1998). The standards are the judgement of rigour or criteria by which the study is measured by the researcher and the reader of the study on completion. In qualitative research this is derived from "...the researcher's presence, the nature of the interaction between the researcher and the participants, the triangulation of data, the interpretation of perceptions, and rich, thick description" (Merriam, 1998, p151).

The substantiation process occurs throughout the study, when data is collected, when it is analysed and when it is reported (Creswell, 1998). In quantitative studies the terms internal validity, external validity, reliability, and objectivity are used in verifying the scientific research procedures whilst Lincoln and Guba (1985) in a well documented debate, suggest the terms credibility, transferability, dependability, and confirmability are more useful in qualitative research to confirm trustworthiness (see p300-328).

The term verification, according to Creswell, is more useful than validity since it "underscores qualitative research as a distinct approach" (Creswell, 1998, p201). He presents eight verification procedures gleaned from the literature, which include: prolonged engagement and persistent observation in the field; triangulation; peer review or debriefing; negative case analysis; clarifying researcher bias; member checks; rich, thick description; and external audits. He suggests that the researcher uses at least two of these procedures. The verification procedures for this study are explained in section 3.7.8, based on those provided by Creswell (1998).

3.6.4 Naturalistic generalisations

Naturalistic generalisations are processes the reader of a case study engages in to make links with their own understanding (Stake, 1998). The ability to generalise qualitative research was seen as an almost impossible goal for qualitative researchers according to Lincoln and Guba (1985) although this is disputed later by them as they agree that 'grounded theory' can have generalised principles that can be transferred to other sites. In earlier work Guba had stated "Generalisations of the rationalistic variety are not possible because phenomena are intimately tied to the times and contexts in which they are found" (1981, p81). They suggested later however, that the research findings may be applicable elsewhere and there is the possibility of transferability (Lincoln & Guba, 1985), a view that is supported by Firestone's notion of 'case-to-case transferability' (Firestone, 1993).

The case-to-case transferability idea suggests that the reader makes the judgement about how applicable components of the case are transferable or not transferable to their own situation, providing the researcher gives sufficiently detailed information for this to occur through the “rich, thick description” (Merriam, 1998, p211). In this study rich, thick description provides the detail to allow the reader to make these decisions.

3.7 Research design for this study

3.7.1 The research setting

The University of Wollongong is located on the South Coast of New South Wales, Australia, about an hour and half drive south of Sydney. The university opened a new campus, the Shoalhaven Campus in Nowra and two new education access centres in Batemans Bay and Bega, as indicated in Figure 1.1. Nowra is 65 km south of Wollongong, Batemans Bay is 191 km, and Bega is almost 336 km or close to five hours by car from the Wollongong Campus. The Moss Vale Access Centre, opened in 2001, is not included in this study as the data collection occurred in 2000.

3.7.1.1 Location and description of the centres

3.7.1.1.1 Bega Education Access Centre

Location

The centre is located in the town of Bega, which had a population of 4,200 people when the centre was proposed (Fuller, 1996, p14). However, the drawing area for students was much larger, with the population of the Bega Valley estimated at 23,000 people (using 1991 Australian Bureau of Statistics Census figures), which included the major urban centres of Bega, Bermagui, Eden, Merimbula, Pambula, Pambula Beach, Tathra and Tura Beach (IRIS, 1996, p9). This population had grown to 30,500 by the 2001 census (Australian Bureau of Statistics, 2002). Students travelled in their first year from as far away as Eden, which is about a two-hour drive from the centre.

Description of the centre

The Bega Centre partnership included the University of Wollongong, the Illawarra Institute of Technology, and Bega High School. This is the only one of the centres with involvement from the secondary school education sector. The access centre was a purpose-built, red brick building, located in a residential area opposite the local high school.

On either side were older weatherboard houses, which meant that the building was restricted in size to accommodate the nature of the residential area (Development Officer, 2000). Inside the centre on the right are two small tutorial rooms with seating for about ten; a computer laboratory, with seating for about thirty; and a larger teaching space, with seating for about twenty-five. There is an office for the coordinator, a small kitchen, and shared amenities. The office contained the phone and fax machine.

An additional computer laboratory is located at the back of the building for use by the high school, providing them with their own external access. Between the tutorial rooms and the main laboratory is an open space with casual seating where people congregate for coffee and food, or to wait to see teaching staff or the centre coordinator. There are noticeboards and information carrels there, both for current and prospective students. In the hallway on the left, there is a storage room with access to electrical equipment, and beside this is an unlocked cupboard with centre resources such as whiteboard markers and photocopy paper, available for tutor use.

3.7.1.1.2 Batemans Bay Library and Education Access Centre

Location

The town of Batemans Bay is a thriving tourist location, built on the banks of the Clyde River in close proximity to many beaches. With a population which had grown from about 6,500 in 1986 to just over 8,300 in 1991, it was one of the fastest growing towns on the South Coast of NSW (IRIS, 1996, p9). By the 2001 census, it had grown to over 10,000 (Australian Bureau of Statistics, 2002). Batemans Bay is located in the Eurobodalla Shire.

The Shire had a population of about 27,000, from the 1991 census statistics (IRIS, 1996, p101) which grew to over 33,000 by 2001 (Australian Bureau of Statistics, 2002). The town is about two hours drive from Canberra, and is a weekend and holiday destination for many public servants and a popular retirement spot.

Description

The Batemans Bay centre partnership includes the University of Wollongong, the Illawarra Institute of Technology (TAFE), and the Eurobodalla Shire Council. The access centre is located a couple of kilometres from the main town thoroughfare and shares its space with the community library. On one side of the centre is the local basketball stadium, on the other are community tennis facilities and sportsgrounds.

The modern design of the building uses bold colours and glass at the front to create a welcoming façade. On entering the building, immediately on the left is the 24-hour access computer laboratory, which includes three rows of computers and two collaborative workspaces for group work. A corridor just past the laboratory leads to a kitchenette, amenities, and a small videoconference teaching space, with seating for about twenty, and a small meeting or tutorial room. The new community Library on the right of the entrance opened in 1999. The Library, contracted to provide library services to the university, had assigned a section of the new facility for the university resources.

There is a feeling of spaciousness in the foyer, which includes a casual area with seats and a table for people to relax. This area leads into the rest of the teaching areas. On the right are the facilities for Technical and Further Education (TAFE) and on the left are the facilities for the university. The coordinator's office is the first on the left and this is beside the tutors' work area and staff room that includes office desks, computers and teaching resources as well as a table and chairs for meetings or coffee. There are two university teaching spaces beyond this office. One is a small tutorial room with seating for about ten people, and a larger teaching space with seating for about thirty people.

3.7.1.1.3 Shoalhaven Campus

Location

The City of Shoalhaven was identified as having a sufficiently large population to warrant the building of a campus of the university (University of Wollongong, 1995). The population in the City of Shoalhaven was 68,290 in 1991, which had grown to just over 83,500 in 2001 (Australian Bureau of Statistics, 2002; University of Wollongong, 1995). This included the main centre of the population, Nowra-Bomaderry, with a population of 24,700, where the new campus was located (Australian Bureau of Statistics, 2002).

In 1992, the university and Shoalhaven Council had reviewed a number of possible sites in the Shoalhaven region that led to the short-listing of five sites (Fuller, 1996; University of Wollongong, 1995). They further refined their criteria and eliminated three of the five sites because of isolation and the resultant high infrastructure costs, political problems and withdrawal from sale.

The remaining properties were the Graham Park Campus site, which was eliminated because of its location on the northern fringe of the shire, and another, which subsequently became the campus. The site was:

vacant Crown Land site of approximately 67.6 ha. located in the vicinity of Flat Rock Dam, off Yalwal Road, West Nowra. The site is approximately 7 km from the Nowra Post Office and 3 km west of the intersection of Yalwal Road and Albatross Road. (Fuller, 1996, p7)

Despite an Aboriginal Land Claim on a section of the site, the partners were able to negotiate a withdrawal of the claim and subsequently acknowledged the generosity of the Nowra Local Aboriginal Land Council and the local Aboriginal Community in the opening ceremony (University of Wollongong, 2000c).

An interim campus had been located in Berry, a small rural village about 15 minutes north of Nowra and 45 minutes south of Wollongong. This interim campus had served for seven years and was the location for the first few months of the implementation of the new degree as the new campus was not complete in time for the start of session. The Shoalhaven Campus was opened to students in May 2000.

Description

The Shoalhaven campus is a shared facility with TAFE and is several kilometres out of town. Built on 67 acres, there is plenty of room for expansion in this bushland setting, to include a high school in the future as well as other campus facilities when required. This is a campus not just an access centre and is much bigger than the other centres. A long driveway leads through two roundabouts. The artwork, in the centre of the roundabouts, reflects the Aboriginal heritage of the area and acknowledges the owners of the land. The university facilities are on the left and the TAFE facilities on the right, with large parking areas on both sides. There is a central colonnade linking four buildings. In the centre of the buildings is a fountain and behind this are two buildings which are shared facilities and include the library, computer access centre and a videoconference room in one building and the student facilities, including cafeteria and a lounge area in the other building. From the cafeteria there are superb views of the mountains in the distance. There is a large outdoor area for students to sit and enjoy the view.

The entry to the university building leads to a long hallway, with an inquiry desk at the end. There is a casual work area immediately on the right, next to a large lecture theatre with seating for about fifty people. Next to this are two smaller teaching spaces. On the left side is another teaching space and then two computer laboratories. Past the laboratory are two smaller tutorial rooms. Round the corner from the inquiry centre and administration assistant's office are individual offices for the Head of the Shoalhaven Campus and support or technical staff.

There is a larger tutor space for casual tutors, which contains desks but no evidence of use, and a number of offices for lecturers. There is a science laboratory set up beside this area. At the end of the hallway, there are staff amenities as well as a kitchen with table and chairs for staff use.

The university section of the new campus was not ready for the start of session in 2000. Numerous delays with building, extreme weather conditions during the building period and theft of equipment at times from the isolated location, meant it was difficult to meet the building deadline (Building updates, South Coast Education Network meetings, various dates). The TAFE section was ready for occupancy first and in use from the start of session in February. TAFE had closed their Business School facility, which was located beside the main street in Nowra, to relocate to the new campus and so could not delay their move. It made sense for the builders to target one section for completion, when it became obvious that not everything could be completed on time. The library and some of the other facilities were also set up and ready to operate for the start of the TAFE year.

3.7.2 Participants

There were many members of University of Wollongong staff with a stake in the program identified as institutional stakeholders. Figure 3.1 shows the staff involved and their location and presents the complex picture of the vast network of people involved in the degree. The researcher identified from this group key stakeholders for interview, though many others provided secondary data sources through meeting notes and informal discussions.

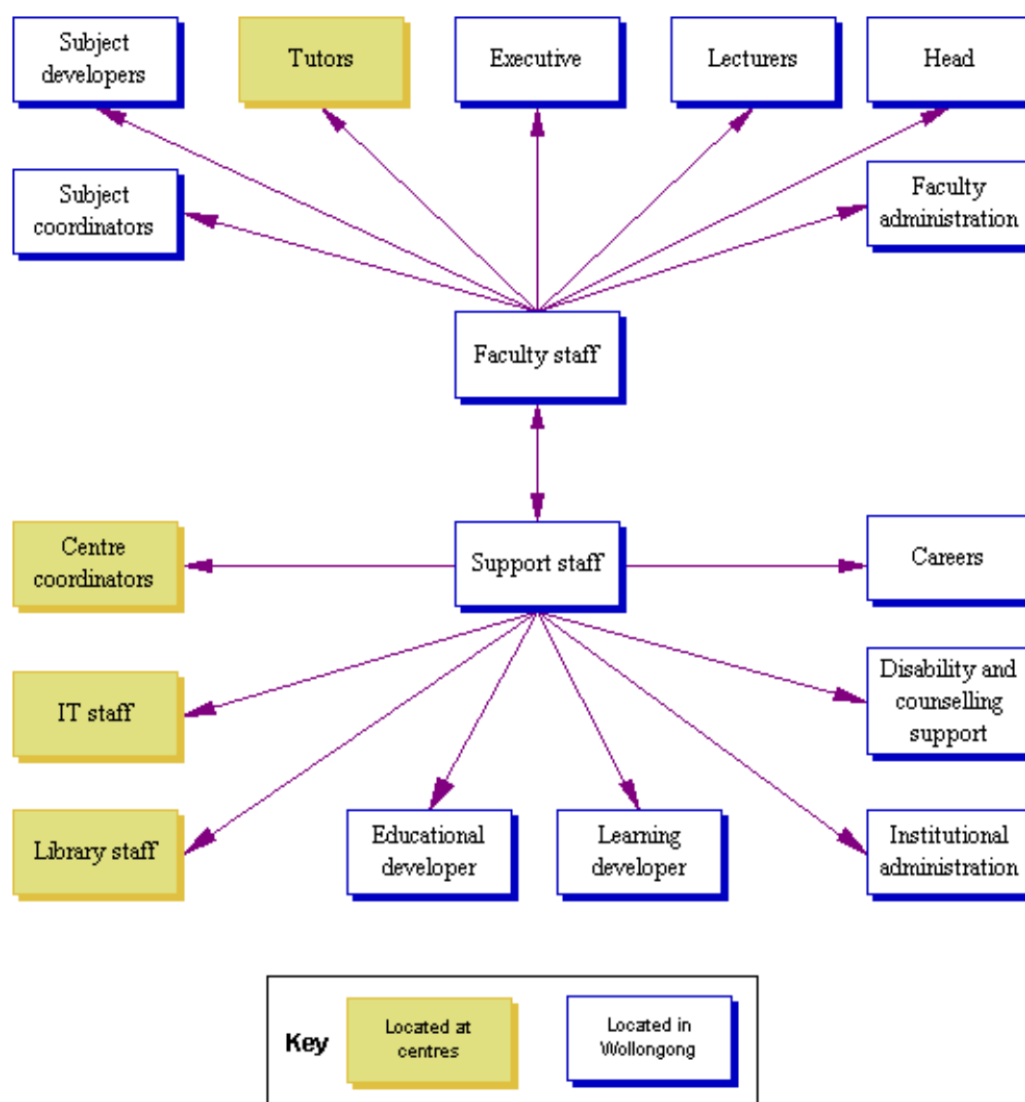


Figure 3.1: Roles and location of staff involved with degree implementation

The stakeholders' roles are clarified in Table 3.1, which identifies the key purpose for each role. Some of the roles overlap, for example, the subject developer, subject coordinator, and lecturer may be the same person.

The stakeholders for the collection of primary source material were the students enrolled in the Bachelor of Arts (Community and Environment), and their tutors and subject coordinators for the subjects in the first year. Students and tutors were drawn from the Shoalhaven Campus, Batemans Bay Library and Access Centre, and Bega Education Access Centre.

There were 46 students enrolled in the Bachelor of Arts (Community and Environment) in 2000, with 30 students (65.2%) located at the Shoalhaven Campus, 9 students (19.5%) at Bega, and 7 students (15.3%) at Batemans Bay. Sixteen tutors participated in the study. There were four subject coordinators interviewed, two of whom were the subject developers.

In addition, the executive of the Faculty of Arts and the Centre Coordinators also participated in the study and they are identified as core stakeholders.

Table 3.1 Key role of stakeholders		
Stakeholders	Location	Key role
Students	All centres	To engage in learning
Tutors	All centres	To implement the learning program designed by the subject developer
Subject coordinator	Wollongong	To administrate and coordinate the subject implementation and to coordinate the tutors
Subject developer	Wollongong	To design and develop the subject including academic content and learning strategies
Lecturer	Wollongong	To present lecture(s) to students within a subject
Associate Dean (Undergraduate Studies)	Wollongong	Initially a subject developer, then Head of South Coast Project (Arts) To oversee course development and manage implementation process
Dean	Wollongong	To provide leadership and management of the faculty
Head of Campus, Graham Park	Berry, then Nowra	Established and managed interim campus. Later became Manager, Shoalhaven Campus
Centre coordinators	Batemans Bay Bega	To manage centres and provide administration support
Student support services	Wollongong	To provide assistance for students for their learning
Educational Developer (Arts) The researcher	Wollongong	To support teaching and learning practice through curriculum development and subject implementation, including tutor training
Administration	Wollongong and centres	To provide all aspects of administration including student enrolment
Technical support	Shoalhaven Campus	To support technology in the centres including computers and teaching equipment

3.7.2.1 Enrolment Statistics for South Coast Campus and Access Centres

The Strategic Planning Unit of the University of Wollongong provided the following information in March 2000. There were 151 students enrolled in one or more subjects offered on the South Coast, but in the South Coast courses, there were only 108 students. The remaining 43 students were enrolled in Wollongong Campus courses, but were taking one or more subjects at the South Coast centres. Of all students enrolled in South Coast subjects, roughly 15 percent were taking subjects at Batemans Bay (24) and Bega (22), and roughly 70 percent at the Shoalhaven Campus (105), as shown in Figure 3.2.

Most students who were fully enrolled on the South Coast were undertaking a Bachelor of Business Administration, a Bachelor of Commerce, or a Bachelor of Arts. There were small numbers enrolled in other degrees, which only offered the first year at Shoalhaven, and these students would complete their degrees at the Wollongong Campus. There were two students, enrolled previously in the Bachelor of Arts at the Graham Park Campus, who completed some of the subjects on offer at Shoalhaven and others at Wollongong. The Arts students comprised 49.6% of the students fully enrolled on the South Coast.

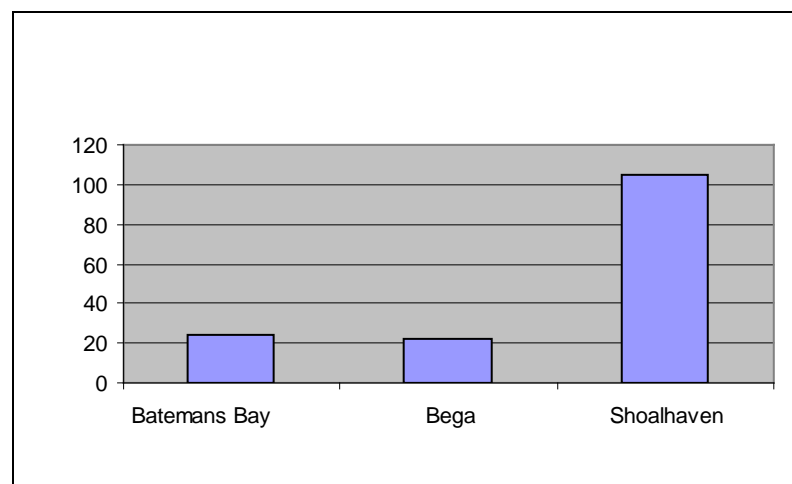


Figure 3.2: Students enrolled in a first year subject overall, March 2000

Enrolment Statistics for Bachelor of Arts (Community and Environment)

Figure 3.3 shows there were 46 students enrolled in the Bachelor of Arts (Community and Environment) in 2000, with 30 or 65.2% located at the Shoalhaven Campus, 9 or 19.5% at Bega, and 7 or 15.3% at Batemans Bay.

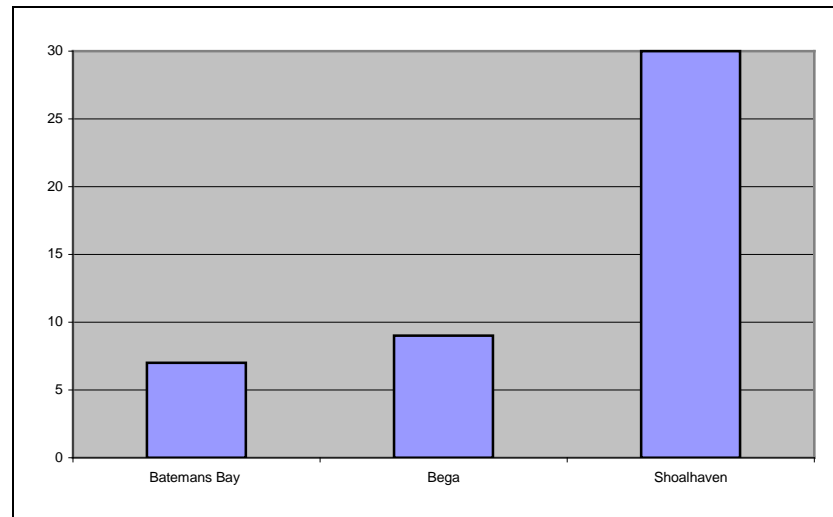


Figure 3.3: Bachelor of Arts enrolments

Enrolment by gender

The majority of students enrolled in the degree were female. Figure 3.4 indicates the spread across the centres. The ratio of females to males at Shoalhaven Campus was 22:8, and at the other centres the ratio was 6:1 at Batemans Bay and 8:1 at Bega, with a single male enrolled at each centre.

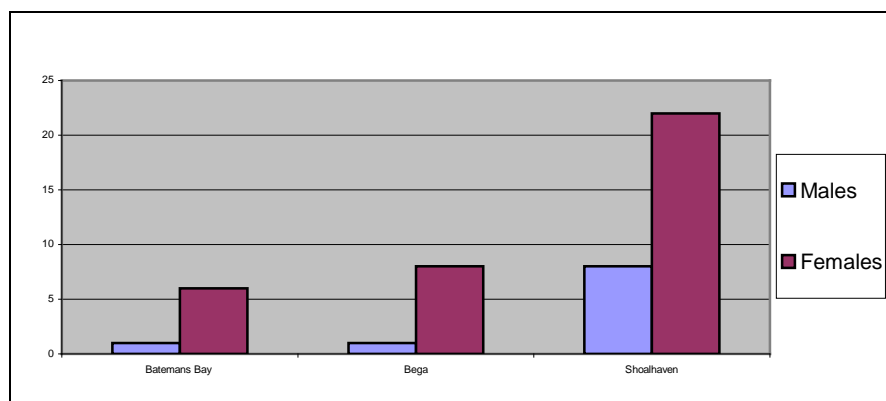


Figure 3.4: Bachelor of Arts: Enrolment by gender

Enrolment by age

Figure 3.5 shows the enrolment by age. At the Shoalhaven Campus the predominant age range was 15-19. The spread of ages indicates approximately one third of students or 33% were postsecondary at the Shoalhaven Campus with a further 17% in the 20-24 age range. There was also a cluster between 30 and 44, of 33%, with 17% over 50. At Batemans Bay there was one postsecondary student whilst 43% of students were in the 35-39 age range. At Bega there was one student under 24 with the predominant age range between 35 and 44.

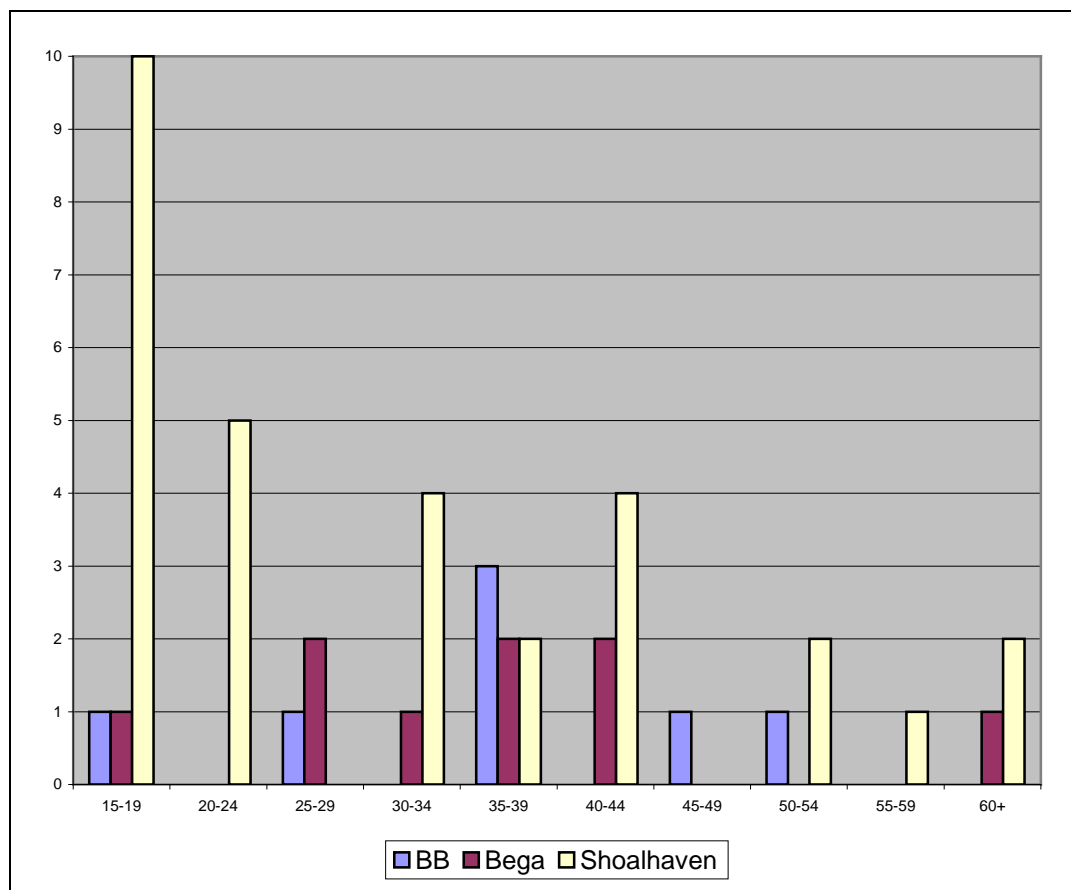


Figure 3.5: Bachelor of Arts: Enrolment by age range

There was an anticipated enrolment of mostly mature-age, female students in the BA, which was confirmed at the smaller centres. The Shoalhaven enrolment of 50% of students under 24 was not anticipated. This was due to a number of factors, but included direct application students who did not meet the required high school entrance levels for access to the university course. Due to the more personalised teaching format with the small numbers anticipated, they were accepted with special consideration that with extra learning assistance and whilst living at home, they could expect to complete the degree.

3.7.2.2 Campus and centre staff members

The university appointed the Head of Graham Park Campus as Manager, Shoalhaven Campus, and he was already a member of the academic staff. The appointment of the centre coordinators for Bega and Batemans Bay as general staff occurred in December 1999. The appointment of coordinators occurred before the centres opened, so they could spend some time at the Wollongong campus to become familiar with university procedures and develop relationships with staff in Wollongong. The reporting line was to the Head of Shoalhaven Campus. Initially the role was four days a week, but within a few weeks, the positions became full-time.

Batemans Bay Library and Education Access Centre

The Centre Coordinator at Batemans Bay was the only permanent member of the university staff. She was a mature woman, who had lived in Batemans Bay since her first teaching appointment some twenty years earlier. She had strong community ties through involvement in cultural and community activities, as well as her involvement in a family business. She had actively supported her husband in his role as Mayor, some years earlier, and was aware of the local government politics. She had most recently worked as a librarian and therefore had an excellent background to manage the centre, and a good relationship with the library staff.

Bega Education Access centre

Similarly, the Centre Coordinator at Bega was the only permanent member of university staff at the centre. She was a mature woman who was actively involved in the community in a number of areas including political and cultural groups and displayed a strong commitment to the community.

Her previous role in teaching and administration in a large TAFE institution in Sydney provided her with a good background to manage a centre with partnerships between the university, TAFE and the local high school and the involvement of the local library.

Shoalhaven Campus

The Head of the Shoalhaven Campus was an academic staff member for a number of years at the Wollongong campus before managing the interim Graham Park Campus at Berry. Originally employed as a secondary teacher in the Shoalhaven area, he had strong ties with the community through basketball and football. In Wollongong, he had worked at the Wollongong Teachers' College before its amalgamation with the University of Wollongong. Since then, he had been a member of the Faculty of Commerce and his discipline was marketing. He had lectured in this area at the Graham Park Campus for the previous seven years. The Shoalhaven campus opening was celebrated on his 62nd birthday.

In his new role, the Manager, Shoalhaven Campus was not involved in teaching. He was well aware of the academic and administrative systems in place in Wollongong and how to work within and around them. He was used to making decisions about the Graham Park Campus, in consultation with the Pro-Vice Chancellor (Academic), and was happy with this arrangement. He had been in control of such things as employing tutors and timetabling of subjects. He had provided academic advice to students and organised social occasions, fund-raising efforts, and marketed the campus through school visits. He had provided the link between the community and the university through his relationship with the local council and its staff, and through his attendance and promotion of the university at many community functions. He was well respected in the local community.

There was one other full time academic member of staff based at the Campus, jointly appointed by the Faculty of Arts and the Aboriginal Education Centre as a lecturer for Aboriginal Studies and she started work at the beginning of the second semester. Two other staff, previously located at Graham Park Campus, also moved to the new location. They were both in administrative roles, one as an administrative assistant and the other as a professional officer, originally funded by the Faculty of Arts.

New appointments made to the centre included the Librarian, who had previously worked in the library at the University of Technology in Sydney, and an Information Services Officer. There were two technical appointments made with overlapping skills: one by Information Technology Services (ITS) and the other by the Centre for Educational Development and Interactive Resources (CEDIR). Whilst the ITS Technician's role was to look after the network infrastructure and the laboratories, the CEDIR Technician's role was to service the teaching technology used in the classrooms, including the videoconferencing unit. They were required to provide support at all of the centres.

3.7.2.3 Sessional staff

At the smaller centres, many of the sessional staff, who had limited term appointments as tutors, knew each other before the opening of the university centres through their involvement in protecting the environment, in political groups and in other educational contexts in their local community. The opening of a new tertiary education centre provided an opportunity for employment, for a support network for some in their postgraduate studies and for their obvious commitment to their local community. They were keen to make a success of the centres and were aware of the need for this if the centres were to survive beyond the initial funding. At a workshop the tutors attended, before the opening, they identified "strong relationships and personal support" as key factors in the success of the centres. They also believed that the centres should be "alive, vibrant and interesting" and that they should have an "awareness of a sense of belonging to the [Wollongong] campus" (Tutor workshop, Batemans Bay, February 5, 2000).

The tutors at the Shoalhaven Campus tended to be more experienced in traditional tutoring methods, and several lived in Wollongong and travelled to Nowra for tutorials, making it unlikely for them to see each other at the Shoalhaven Campus. Many were also completing higher degrees, whilst some were already lecturers at Wollongong or another university. They displayed a strong commitment to their students and frequently were available before or after tutorials to meet with their students, and several had the added advantage of 'corridor chats' with the subject coordinator in Wollongong when tutoring there.

Many of the tutors had prior teacher training or experience, for example, primary training and tertiary experience, or secondary and TAFE. Of the sixteen tutors, there were three with primary school training, three with secondary training, and six with TAFE training. Six tutors had previous experience with tertiary teaching and one with Yoga teacher training. There was one tutor with no training or experience and there were two with unknown qualifications.

Most had little experience with using technology in teaching. They had attended tutor training sessions early in February at the Graham Park Campus or at the Batemans Bay Access Centre which provided an introduction to the technology and to the role of the tutor. They attended the Wollongong Campus for a further two days in late February to build on their initial training and to meet the subject coordinators.

Compared with on-campus tutors, who are usually drawn from postgraduate students in the Faculty of Arts with little or no teaching experience, this group were well qualified. They had considerable expertise in teaching and learning, providing many of them with a good basis for managing the learning environment in the face-to-face tutorials and for teaching adult learners.

3.7.2.4 Wollongong Campus Staff members

Subject coordinators

The lecturers or subject coordinators were all based in Wollongong at the main campus, up to ten hours return journey by road from the most remote centre. Two of the subject developers were on study leave, which meant their subjects were coordinated by experienced academics who had not been involved in the subject development.

One of the other coordinators was a part-time lecturer, who worked at another institution on the day the tutorials were held in the centres. Six of the lecturers/coordinators were experienced tertiary educators, though not necessarily familiar with flexible teaching methods.

Head of South Coast Project (Arts)

The Head of the project was initially a member of a subject team who piloted new teaching methods in one of the second year subjects on-campus. She later became the Associate Dean of Arts (Undergraduate Studies). She facilitated the curriculum development process for the new degree, and modelled the practices in her own teaching on-campus. She collaborated with the researcher and other staff involved to publish on the South Coast experience (Albury, 2001; Albury, Lefoe, Littler, & Trivett, 2001; Curtis, Lefoe, Merten, Milne, & Albury, 1999; Lefoe & Albury, 2002; Lefoe, Albury, Littler, & Trivett, 2001).

3.7.3 Ethics approval and considerations

Approval from the Human Research Ethics Committee of the University of Wollongong to undertake the research was received in May 2000. The following steps were followed as stated in the application to protect the participants:

- Participants were fully informed about the study and provided with an information sheet for future reference (Appendix 3.1).
- Consent forms were signed by all student participants (Appendix 3.2).
- The nature of the study was described to all participants and voluntary participation was sought.
- Participants were advised that they were free to leave the study at any time and should they withdraw that data collected from them would not be used in the study. Furthermore, their withdrawal would not affect their access to resources or progress in their degree or their relationship with their faculty. There were no withdrawals from the study.
- Information collected from the participants would remain confidential and be identifiable only from a code where necessary to compare responses.
- Observation was overt, not covert.
- Members of academic staff including tutors were personally invited to participate and supplied with a copy of the information sheet (Appendix 3.1).
- Subject surveys were voluntary and anonymous for all students in classes (Appendix 3.3).
- Any publications related to the thesis do not identify names of participants.

3.7.4 Role of the Researcher

The researcher had several roles in the study.

- Lecturer, Centre for Educational development and Interactive Resources (CEDIR). In this support role the researcher has been a member of South Coast Project (Arts) team and a member of design teams for the individual subjects and has continued to work with subject developers and tutors in the areas of subject design and in a staff development role.
- Data collection instrument and interviewer. The researcher was involved in collecting and analysing data, observing and interacting with participants, conducting the interviews and focus groups.
- Participant Observer and Chair, South Coast Teaching and Learning Evaluation Working Party. The Centre for Educational Development and Interactive resources (CEDIR) evaluation team formed the working party in 2000 to formalise the evaluation of the South Coast implementation. The researcher observed the case study participants at each of the sites and participated in many of the committees involved in the implementation at the institutional and faculty level. In this role, the researcher provided ongoing feedback from the evaluation to key stakeholders to address issues as they arose.

The researcher acknowledges her subjectivities as influencing the selection of the case studied and the research design, as well as the choice of data collected and the presentation and interpretation of the study. Furthermore, the researcher acknowledges her bias towards a constructivist philosophy and her belief that there are “multiple perspectives of reality” (Merriam, 1998, p22). Extensive verification procedures were used and are provided in Table 3.6.

3.7.5 Data collection

In order to create a holistic account of this case study, the researcher selected multiple sources of information to provide the detailed description of the development and implementation process. The data sources include documents, subject surveys, semi-structured interviews and focus groups, observations, and informal discussions. Table 3.2 provides an overview of data sources collected to investigate each of the research sub-questions.

Table 3.2 Data collection matrix		
Research sub-questions	Primary sources	Secondary sources
What were the perceptions of students, tutors, and subject coordinators in the BA program of teaching and learning in a distributed learning context?	Semi-structured interviews Subject surveys Focus Groups	Institutional documents including subject outlines, minutes of meetings, reports, and planning documents. Observations and informal discussions including email
What organisational factors promoted or constrained teaching and learning for students and staff in a distributed learning context?	Semi-structured interviews Subject surveys Focus Groups	Institutional documents including reports, submissions, minutes of meetings, planning documents. Observations and informal discussions including email

Student focus groups were held with volunteers in each semester at each centre with participant numbers varying as available from two to six members. Whilst guiding questions (Appendix 3.4) were used to ensure similarities across centres, there was sufficient flexibility to allow the concerns and issues of the participants to be further explored. The same method was used for semi-structured interviews (Appendix 3.5) with the four available subject coordinators, which also allowed for their concerns and issues to be pursued. Quotes provided from the interviews and focus groups in the subsequent chapters are presented with minor amendments.

Observations made at centres on site visits, staff development activities, faculty and institutional meetings, as well as the researcher's notes, media reports, student information documents, and marketing materials were collected to support the primary data. They were used to assist with the thick description of the development and implementation phases of this case study.

The case study includes some quantitative data derived from subject surveys that were developed in collaboration with subject coordinators (See sample survey, Appendix 3.4). The surveys were designed using the validated database of questions provided in the subject survey instrument, Subject Online Survey or SOS, developed by the University of Wollongong, (Corderoy, Stace, & Ip, 1999; Corderoy, Stace, Wills, & Ip, 2000). Survey statements were chosen in collaboration with subject coordinators and the surveys were distributed during class time by centre coordinators in the access centres and the professional officer at Shoalhaven Campus. For confidentiality, students were not required to provide any personal information in the survey, since they could easily be identified in the access centres with such small numbers in each subject.

Subject surveys were conducted for six of the seven subjects on offer in the first year in the degree program. The subject surveys used a 6-point Likert scale and required students to indicate a response from strongly agree, agree, slightly agree, slightly disagree, disagree, and strongly disagree. There was also an option to indicate if a statement was not applicable. They included open-ended questions.

Table 3.3 provides details of the number of respondents and the number enrolled for each subject. The subject surveys did not aim to compare the subjects, but to determine student perceptions of the implementation of individual subjects and to confirm perceptions from student focus groups, in order to triangulate data, which is discussed further in Section 3.7.8.

Table 3.3 Subjects survey: respondents and enrolments				
Subject code	Semester	Number enrolled	Respondents	Response rate
Subject A *	1	27	17	63%
Subject B*	1	29	19	65.5%
Subject C	2	19	17	89%
Subject D	2	19 plus 2***	21	100%
Subject E*	1	26	11	42%
Subject F*	1	24 plus 2***	11	46% or 42%
Subject G *	2	27	Lecturer surveyed students	0
Elective **	2	N/A		N/A

Statistics derived from new student database, which was implemented in 2000, included some students enrolled in Wollongong but attending at Shoalhaven Campus. * Indicates core subject. ** Elective chosen from any available subjects depending on location and offerings. *** Some students enrolled at the Wollongong campus attended class at Shoalhaven Campus since they lived locally.

The summary of primary data sources is provided in Table 3.4. Additional sources of data included institutional documents (see Table 3.2) that included publicly available documents such as subject outlines, planning reports and policy documents. They also included documents such as minutes of meeting, reports, and submissions that were required to understand the context. The processes of data collection and analysis continued in parallel and the process of data analysis is discussed in Section 3.7.6.

Table 3.4 Summary of data collection from primary sources			
Method	Who	Number of times	Number of participants
Interviews	Executive (Dean, Associate Dean)	1	2
	Subject developers or coordinators	1	4
	Head of Campus, Graham Park (later Manager, Shoalhaven Campus), Centre Coordinators	1	3
	Tutors	1	16
Focus Groups	Students	1 per semester	Varied from 2 -6 per centre
Surveys	Students	1 per subject	46

3.7.6 Data analysis

The subsequent chapters have “a greater proportion of description than other forms of qualitative research in order to convey a holistic understanding of the case, [and] the level of interpretation ... extend[s] to the presentation of categories, themes, models” (Merriam, 1998, p194). This case study does not aim to develop theory, but focuses on the descriptive and interpretative elements of case study methods. Feedback was supplied to stakeholders as early as possible and continuously throughout the study, with modifications made to questions and methods in response to their concerns. For example, analysis of subject survey results was used to support question development for the focus groups and a stakeholders’ meeting in October 2000 provided a member check of the case (Lefoe, 2000). Table 3.5, based on Creswell’s data analysis stages (1998, p148-149), provides an overview of steps taken, as well as products of the analysis, such as publications and chapters. The procedures undertaken for specific types of data collected are described in more detail in the following sub-sections.

Table 3. 5 Stages of data analysis and representation			
Stages	Case study	Analysis procedures	Analysis products and reporting
Data managing	Create and organise files for data	<ul style="list-style-type: none"> Identifying, collecting, and organising all electronic documents into computer filing system which assisted to identify gaps for future document collection. Transcription of audiotape interviews to word processing files. Attribute values assigned to documents for computer coding. 	Computer files.
Reading, memoing	Read through text	<ul style="list-style-type: none"> Make margin notes, form initial codes. The constant comparative method was used initially to identify early categories, recorded as margin notes and in researcher's diary. 	Initial codes Annotations
Describing	Describe the case and context	<ul style="list-style-type: none"> Contextual information collected during site visits, through media reports and institutional documents and added to data set. Various data sources reviewed including subject outlines, handbooks, institutional records such as student profiles and meeting records. Multiple perspectives provided through focus groups with students and interviews with tutors, subject coordinators, and centre coordinators and through collaboration on writing with institutional stakeholders. Description of case and context continuously refined, and presented in conference papers. 	<p>Summaries</p> <p>Rich description</p> <p>Member checking occurred through report to stakeholders meeting in October 2000 (Lefoe, 2000).</p> <p>Paper presented at Higher Education Research and Development Society of Australasia conference and subsequently published in monograph (Albury et al., 2001; Lefoe, Albury et al., 2001).</p>

Table 3. 5 Stages of data analysis and representation			
Classifying	<p>Use categorical aggregation</p> <p>Establish patterns of categories</p>	<ul style="list-style-type: none"> Categories for coding identified from <ul style="list-style-type: none"> concerns and issues which emerged from data research questions research literature models were developed to determine relationships between categories and to identify themes or patterns. Other data display techniques used to identify themes included matrices and diagrams (Miles & Huberman, 1994). Identified categories and tested with student focus groups data then with tutor interviews. Member checking occurred through publication. Analysis software used to test and confirm categories and themes, a process that involved continuous refinement (Bazely and Richards, 2000; Gibbs, 2002). Review and refinement of categories with external researcher to confirm categories and coding. 	<p>Working hypotheses presented through conference papers and publications: Australasian Society for Computers In Learning In Tertiary Education conference paper received Outstanding Paper Award and consequently revised version published in Australasian Journal of Educational Technology (Lefoe, Gunn, & Hedberg, 2001b; Lefoe, Gunn, & Hedberg, 2002).</p> <p>Papers presented at Improving Student Learning Symposium and International Conference in Computers in Education conference and subsequently published in proceedings (Lefoe, Hedberg, & Gunn, 2002a; 2002b).</p>
Interpreting	<p>Use direct interpretation</p> <p>Develop naturalistic generalisations</p>	<ul style="list-style-type: none"> Data was examined for instances which were aggregated to confirm themes (Stake, 1995, p73). Summaries are presented through direct quotes from the data. The final chapter provides the lessons learned derived from the researcher's interpretation of the data and related literature. 	<p>Chapter 7 provides recommendations to improve practice.</p>
Representing and visualising	<p>Present narrative augmented by tables, and figures</p>	<ul style="list-style-type: none"> Results of the analysis are presented in Chapters 4 to 6. These chapters represent descriptions and the researcher's interpretation of the case, using tables and figures to exemplify the case through summaries of data. 	<p>Chapter 4 describes the initiation process and organisational development.</p> <p>Chapters 5 and 6 describe the implementation process.</p>

3.7.6.1 Analysing documents

Documents were analysed to “understand behaviour, issues and contexts,” related to this case (Stake, 1995, p78). Documents such as the *Faculty of Arts Undergraduate Handbook*, subject outlines and workbooks, and *Studying on the South Coast* student guide were examined for descriptive information about the degree and the subjects, and for insights into the subject developers’ beliefs about teaching and learning. At the institutional level, public documents such as the *Strategic Plan for Teaching and Learning* (University of Wollongong, 1997c), annual reports (University of Wollongong, 1992, 1996b, 1997a), and private documents such as minutes of meetings and reports to committees were examined to understand the context within which the degree was developed and implemented. Government reports related to the issues such as Triennium Funding documents (Department of Employment, Education and Training & Baldwin, 1992; Department of Employment, Education and Training & Crean, 1996) and invited submissions (University of Wollongong, 1995) were also examined to understand the context of higher education during the 1990s.

3.7.6.2 Analysing interviews and focus groups

Data were collected and organised chronologically in semester, then subject order. Transcripts of the initial interviews and focus groups were compared with the audio recordings. Initial analysis was conducted through multiple readings of the interviews and focus groups to identify themes using the constant comparative method (Glaser & Strauss, 1967; Merriam, 1998).

The constant comparative method involves the researcher in identifying an incident in the data then comparing it with other incidents and instances in the same document or in others that leads to tentative categories. Merriam describes this process:

Constant comparative method involves comparing one segment of data with another to determine similarities and differences. ... Data are grouped together on a similar dimension. This dimension is tentatively given a name; it then becomes a category. The overall object of this analysis is to seek patterns in the data. (Merriam, 1998, p18)

Data analysis software has been developed to facilitate this process. This allows the researcher not only to categorise data, but also to follow hunches, and question the data through its search capabilities, in a way that would be very time consuming using card- or paper based-methods.

In this study, the data were imported into the analysis software and attributes were identified for each document such as location, semester, subject, and occupation (student, tutor, subject coordinator) to assist later analysis. The list of attributes is included in Appendix 3.6. The data were further analysed to create categories and sub-categories and all interviews and focus groups were coded into these groups, which were constantly refined throughout the process. A sample node coding report is included in Appendix 3.7. Memos were attached to documents and to 'nodes' or categories as the researcher interpreted the relationships between them. A list of nodes is included in Appendix 3.8. Models of the themes and categories and their relationships were developed and manipulated to build up an understanding of the relationships between the categories and sub-categories (See Appendix 3.9). The process was constantly refined to confirm the move from purely descriptive categories drawn from the data to more conceptual categories and sub-categories to identify relationships among them (Bazely & Richards, 2000; Gibbs, 2002; Richards, 1999).

3.7.6.3 Analysing surveys

The survey data included a combination of statements using a 6-point Likert scale and open-ended questions that required a written response. The number of respondents to the surveys varied from 11 to 19, an acceptable return for subjects that had from 21 to 29 students enrolled, across the three centres. All data were analysed qualitatively since the number of respondents was small and insufficient to determine whether the results were statistically significant. Pattern searching and coding were used for the open-ended responses. Survey questions and results are included in Appendix 5.

Overall, the analysis of the data allowed the main themes to be represented and visualised, and an interpretation of the case that informed the recommendations for future practice (Creswell, 1998; Stake, 1995). The limitations of the study are now examined, followed by a discussion on the trustworthiness of the study.

3.7.7 Limitations of the study

A limitation of this study is the short time frame for data collection since it was restricted to the first year of implementation for a single degree in the three locations, and limited offerings of subjects. A longitudinal study of the implementation of the whole degree would provide further insights to improving processes and the future development of policy in the area. However, this study provides recommendations to improve practice for further implementation at the new campus and access centres for the next two years of the degree.

A further limitation of the method used is the subjective nature of the qualitative data collected through interviews with faculty and students, and what could be considered an unrealistic expectation of a level of trust and cooperation with the obvious high political stakes involved for some of the stakeholders. The researcher in this context was also a stakeholder, and so made every effort to examine the researcher's subjectivity as well as the stakeholders' (Merriam, 1998).

The case study investigated a multidimensional context that was bounded by a period of one year, in a specific institution and with specific participants. As such, the findings cannot be generalised by the researcher to other contexts. However, generalisations may be made by the reader to other contexts (Firestone, 1993; Stake, 1998).

3.7.8 Quality of the study

For this study, a number of procedures to ensure quality and support verification were used. They included observation, triangulation, peer review, member checking, clarification of bias, and a rich, thick description of the case. Table 3.6 provides a summary of these procedures, with further details drawn from Creswell (1998).

Table 3. 6 Verification procedures used in this study	
Procedure used	Details
Prolonged engagement and persistent observation in the field	Researcher visits to sites, contact through email and videoconference. Attendance and observations made at related meetings. Notes made of observations during visits, and diary.
Triangulation	Data collected in multiple forms including interviews, focus groups, surveys, and documents. Multiple sources were used to support findings.
Peer review or debriefing as an external check of the research process	<p>This occurred through a variety of means:</p> <ul style="list-style-type: none"> – Ongoing discussions with a research colleague not involved in the study and with the Head of the program. – Review of identification of themes and the data coding process by external researcher – Publication of peer reviewed paper (received Outstanding Paper Award), reviewed again before publication in journal (Lefoe, Gunn et al., 2001b; Lefoe, Gunn et al., 2002a) – Informal member checking occurred through collaboration on a publication after the data collection (Albury et al., 2001).
Clarifying researcher bias from the start of the study	The researcher outlined this in a proposal presented to a faculty panel and to the University Ethics Committee. Further reflection during the study.
Member checks	<p>The presentation of a report to stakeholders, including subject coordinators, tutors and students (Lefoe, 2000) and consequent discussion and actions for improvement that followed.</p> <p>Member checks were also conducted through provision of published papers to subject coordinators, tutors, and students with invitation for comments.</p>
Rich, thick description so reader can make decisions regarding transferability	Description is used throughout the study, including the words of the participants, to provide sufficient detail for the reader to make these decisions.

Trustworthiness has been achieved through the combination of a number of procedures as identified in Table 3.6. In addition, the themes identified were verified when an external researcher reviewed the identification of themes and the data coding process, which included detailed discussion of the categories and the researcher's interpretation of the data. Peer review for publications on the study provided further verification of the process used.

3.8 Summary

This study employed a qualitative case study approach to investigate the first year of implementation of an innovative Bachelor of Arts degree in a new learning environment. Multiple perspectives are presented within the description and interpretation of the case. The case study design was the best strategy to gather an in-depth understanding of the implementation of the new degree and to gain insight from stakeholders involved in this complex implementation, providing a rich, holistic account of the process. Through analysis and interpretation of the data, the case study identified recommendations to improve the process (or to modify practice) during further stages of the implementation beyond the first year.

The study was bounded by time - the first year, and place - the University of Wollongong and its satellite centres on the South Coast of NSW. The participants included students who were enrolled in the subjects at the centres and their tutors, as well as staff at the Wollongong campus who were vital to the implementation, including the subject coordinators, and the executive members of the Faculty of Arts. The researcher was the main data collection instrument and had several roles in relation to the study. Data collection and analysis was an iterative process that was conducted throughout the study. Data was collected through documents, focus groups, interviews, subject surveys, and overt observations. The data analysis procedures included describing, summarising, and comparing the data to determine the themes, which the researcher interpreted and compared to the literature to determine the lessons learned and to make recommendations for policy and practice.

The quality of the study is confirmed through a number of verification procedures, including observation, triangulation, peer review, member checking, clarification of bias, and a rich, thick description of the case. This allows the reader to make decisions about the transferability of the study. The next chapter provides a detailed description of the context for the study. The implementation of the new degree occurred within a complex context that involved external and internal change processes. Chapter Four examines the external factors that influenced the establishment of the satellite campus, and then describes the internal complexities, including the institutional and faculty-based structures to provide an understanding of the institutional context.

Chapter 4

Preparation for a new campus

4.1 Introduction

Australian higher education institutions have been bombarded with change efforts, particularly since deregulation of the sector in 1988, representing a shift in power from the academy to the state and later from the state to the federal government (Gallagher, 2000). Many of the changes were driven by the new market economy, which found universities competing for funds in a changed resource environment (Adams, 2002; Coaldrake & Stedman, 1998). These changes included:

government-driven amalgamation of institutions across sectors, central allocation of operating grants for student places at normative prices on a rolling triennial basis, categorical funding to meet national priorities, and requirements on institutions to produce planning and performance documentation (Gallagher, 2000, p7).

Since governments were unlikely to fund new universities in this era, the responsibility to meet the needs of rural and remote students fell to existing universities. In a time of otherwise reduced funding, universities were encouraged by the offer of financial incentives from the government to set up satellite campuses. The University of Wollongong followed this path.

This chapter details the context for the establishment of a satellite campus by the University of Wollongong that was the setting for this study. Section 4.2 describes the university's early forays into providing higher education for the South Coast of NSW first through its provision of a branch campus in Nowra, then an interim campus in Berry before establishment of the Shoalhaven Campus at Nowra and access centres further down the coast. It discusses the planning process including how funding was secured and how the technology infrastructure was established. It explores the perceptions of a rationale for the establishment of the Shoalhaven campus and access centres.

Section 4.3 develops the context further through an overview of the organisational development process that the university underwent to achieve the goal of establishing a campus and access centres on the South Coast and to prepare for teaching and learning in these centres in 2000.

In order to describe the context, this chapter draws on a number of primary and secondary data sources that were analysed by the researcher including:

- Interviews conducted with executive staff; the Head of Campus, Graham Park, who later became the Manager, Shoalhaven Campus; centre coordinators; tutors and subject coordinators.
- Focus groups and surveys with students at the different centres each semester.
- Government invited reports, occasional papers and funding reports (for example, Department of Employment, Education and Training & Baldwin, 1992; Gallagher, 2000; National Board of Employment Education and Training, 1990).
- University of Wollongong planning, reporting and marketing documents (for example, University of Wollongong, 1992, 1994a, 1994b, 2000c).
- University of Wollongong research publications (for example, Castle, 1991; Illawarra Regional Information Service, 1996).
- South Coast planning documents and minutes of related meetings (for example, Fuller, 1996; University of Wollongong, 1995).
- Related literature and research (for example, Davidson, Dekkers, & Booth, 1994).

4.2 Initiation stage

4.2.1 The changing face of Australian higher education

In the early nineties in Australia, the Federal government provided the majority of funding for the university sector. The Department of Employment, Education and Training (DEET) provided the funds to the states for distribution to higher education institutions. The government acknowledged that a pressure for new campuses was the result of an increasing and shifting population as well as increased aspirations for higher education, but was concerned about the “significant resource implications” (Department of Employment, Education and Training & Baldwin, 1992, p21). The Higher Education Funding Report in 1992 identified principles for the support of new campus developments. These included:

- evidence of strategic planning mechanisms;
- support from the state and the local community;

- piloting an offering of limited courses before significant expenditure;
- ensuring that the best modes of delivery were used, including cooperative partnerships with NSW Technical and Further Education Commission (TAFE);
- sufficient subjects on offer for students to complete their study; and
- assurance of the long-term viability of the new campus. (DEET & Baldwin, 1992, p21-22)

Deregulation of universities in the mid-nineties meant significant changes to the way universities operated. Universities looked beyond their boundaries for ways to increase funds and became more entrepreneurial in their outlook through the inclusion of full fee-paying international students and more vocationally oriented postgraduate courses to raise revenue (Gallagher, 2000). They also looked offshore, forming relationships with other institutions to provide a university education in partnership with them, or establishing their own offshore campuses.

Within Australia, they also competed for students and extra funding. Any opportunity for access to growth funds was essential to universities, particularly regional institutions with limited and now reducing budgets.

4.2.2 Impact on the University of Wollongong

Within this context, the Vice Chancellor of the University of Wollongong announced plans in December 1992 to offer two undergraduate degrees in the Shoalhaven area, a Bachelor of Arts and a Bachelor of Commerce. The idea of a regional campus came at the instigation of Shoalhaven council at an Illawarra Regional Development Council meeting which the Vice Chancellor attended earlier in the year.

Castle (1991) described the Vice Chancellor:

Ken McKinnon was not cast in the traditional mould. He was not an academic steeped in the ways of department and faculty. He was a highly successful academic administrator who had skilfully chaired the Schools Commission. His experience with Canberra bureaucracy and the Australian Government was a singular advantage at a time when Canberra was tightening its control over universities and demanding efficiency while imposing accountability. His Canberra days enabled him to see what could be important in gaining Government support. (p28)

The Head of Campus, Graham Park, involved in the planning from the start, described him in a similar manner and identified his strengths also:

Ken McKinnon was ideal for the job. He knew where all the hollow logs were, because he had been involved in the political arena. You see back in 1972, he was the chairman of the Education Commission, the king of the court. So he knew that there was money in offering a campus away from the central campus. This is why Graham Park [Berry] was set up, to attract those funds. (Interview, 26/3/00)

Due to the extensive negotiation and planning with Shoalhaven Council, and the Vice Chancellor's knowledge of funding opportunities, the university initiated a pilot project at the Graham Park site to convince the Federal Government of the viability of setting up a university campus in the Shoalhaven region. The University of Wollongong ensured that it met the requirements of the government guidelines for establishing a new regional centre. It provided evidence of strategic planning for the development and delivery of higher education services through the formation of the South Coast Educational Network (SCEN). This was a partnership among the University of Wollongong; Technical and Further Education (TAFE), through the Illawarra Institute of Technology; the New South Wales Department of Education and Training (DET); and the three local government areas on the South Coast: Bega Valley, Eurobodalla, and Shoalhaven. The university tested the demand for the courses by offering some first and year second subjects at an interim campus in Berry, which required students to complete their degree in Wollongong. Academic staff developed cooperative arrangements with TAFE, specifically focussed on articulation between TAFE courses and university degrees. They piloted alternative delivery modes at the Berry campus. At the new Shoalhaven campus, there would be assurance of its long-term viability through the offering of sufficient subjects for students to complete a Bachelor of Business Administration or a Bachelor of Arts, with some limited offerings from other faculties.

In 1996, the *Provision of Higher Education on the South Coast of NSW - Options Study* (Fuller, 1996) provided the impetus for approval of \$6.62m to be made available from the funding pool for a new campus located in Nowra, and access centres in Batemans Bay and Bega (DEET & Kemp, 1999). The Department of Education and Training granted further funding for the centres through the collaboration with the Illawarra Institute of Technology. This meant an allocation of more Federal government funding of \$5.8m from the TAFE Commission resources (Program, Opening Shoalhaven Campus, June 2000). Shoalhaven council provided \$3m towards the infrastructure costs, and local governments at Bega and Batemans Bay provided additional funds.

4.2.3 South Coast trials

4.2.3.1 The early history

Academic staff at the University of Wollongong had been early adopters of innovative uses of technology in teaching and learning since the 1980s. An early study found that over 90 academic staff at Wollongong engaged in some form of computer-based education during 1992, one of the highest involvement rates for academic staff amongst the 28 universities surveyed (Cochrane et al., 1993). The university executive provided an environment that supported and rewarded technology innovations and the Faculty of Education were early adopters in this area, despite a lack of suitable network infrastructure for the technology they were piloting.

The University of Wollongong had offered short courses in the Nowra area since the early 1980s, in the areas of teaching and management (University of Wollongong, 1993 p10). In 1992, a Bachelor of Education (fourth year only) was offered "as a consequence of long standing pressure from local teachers" (Davidson et al., 1994, p81) to upgrade their qualifications. Based within the local high school, thirty students enrolled in the first cohort at the Nowra branch campus.

In 1992, Davidson and associates collected data for a case study through questionnaires sent to students enrolled in the Bachelor of Education program, and through interviews of university staff and local stakeholders (Davidson et al., 1994). Lecturers from the Wollongong campus used computer technology to aid student learning, supported with four or five visits per semester. A local teacher provided technical assistance for four hours per week in the technical high school facilities, where students could access the technology required. The university funded the initiative with \$28,000 through an internal University Challenge Grant.

However, the findings identified that the technology used hampered the success of the program, a difficulty for many early trials in this era when the telecommunications infrastructure was not in place (Davidson et al., 1994).

There were three specific problem areas identified: lack of reliability of the technology, lack of student training, and lack of staff training (Davidson et al., 1994). Email was the primary technology used, but many students indicated that because of technical difficulties and the cost involved in submitting their work, it was easier to mail or fax assignments to their lecturers.

From the university's perspective, the lessons learned from these early adopters of new technology for teaching and learning included the need to upgrade computer facilities and infrastructure on-campus if technology was to be used successfully in future programs. The study also pointed to the need for skills development and support for staff and students involved in such initiatives. This experience laid the groundwork for future offerings on the South Coast and the opening of an interim campus, located in Berry.

4.2.3.2 The interim campus

The next development was the opening of an interim campus in 1993, which was located in Berry, approximately twenty minutes north of Nowra. It was located in an artificial insemination centre, Graham Park Research Station, which had been unused for several years. The Head of Campus, Graham Park described how the decision was made to use this centre:

There were five of us that came down. Lauchlan Chipman, the Pro Vice Chancellor (PVC), was one and I the other, one from Education, one from Engineering and one from Science and we spent about 11/2 hours going through the building. [PVC] said, 'Right oh, what do you think of the place?' And the first said, 'no, it's got no interest for us'; the second one said the same thing; third one said the same thing. They all showed no interest. I was the last one and I sat down and he said, 'What do you think?' I said, 'It's fantastic!' I said, 'Put up a coat of paint and new carpets, desks and chairs in there and TV sets and whiteboards. I can see students. It will go.' He said, 'That's funny so can I, I can see the same thing.' So, although we were out-voted three to two, he went back and spoke to Ken McKinnon (Vice Chancellor). The next thing I knew Lauchlan pulled me in and said, 'You've been appointed. You don't have to come up here any more. We want you to go down there and get it off the ground.' (Interview, 26/3/00).

The Vice Chancellor had identified a champion for the initiative and the Head's commitment was exemplified as he worked at all levels internally and externally to ensure the success of the venture. He was however 'a lone ranger', used to working on his own (see Taylor, P. G., 1998), frequently finding ways to work around the systems in place at the main campus, encouraging academics to provide quality subjects and networking within the local community for support (Interview, 26/3/00).

Despite a late announcement in December 1992, fifteen students enrolled in February 1993. The mature-aged students were supported in their studies through additional learning support and small class sizes. One of these students, who had won the University Medal in her final year at Wollongong, was completing a doctorate at Monash University in 2000. The Head frequently used her as an example of the calibre of the students who started at the campus (Interview, 26/3/00).

The Shoalhaven Council continued its strong support for the venture, and the Head of Campus, Graham Park stated: “We’ve always known since the council stepped in after the third year and decided, as a result of those census declarations, that we were socially and economically disadvantaged, ... [to buy] this place for us” (Interview, 26/3/00). The Council purchased the Graham Park site in 1995, leasing it to the university for a nominal rent of \$1 per year from 1996 until 2000. The Head of Campus saw the contribution of funds by the council as a strong indicator of the future of the campus: “The die was cast. We were never ever going to close down here. We were never going to go back to Wollongong. The place was always going to go forward. Then they started planning the site” (Interview, 26/3/00).

Because of the earlier trials and the short time frame for redevelopment of subjects, technology was not used to support this initiative, which for the most part replicated campus teaching. Some lecturers sent amateur videos of Wollongong lectures, which were not well received by the Head or the students, who expressed concerns about a ‘second rate degree’. Later trials using videoconferencing were more successful, though technology problems related to the telecommunication networks and funding for the facility continued to impact on teaching and learning.

The campus offered students the first year of a Bachelor of Commerce and the first year of a Bachelor of Arts. Over the next few years, the offering was increased to include some second year subjects, but students were eventually required to attend classes in Wollongong to complete their degree. This was partly due to the limited offerings in first and second year, but also because there were no third year subjects. The pattern of completing the degree in Wollongong was firmly entrenched, with student numbers too small by the third year to offer viable subjects. The faculties involved were subsidised \$8,000 for each subject each semester, and many of the faculty travelled to Berry for the lectures and tutorials, with some local tutors employed.

As the first year progressed the Head of Campus tried to persuade the faculties to increase the number of subjects, but as students wanted to major in a range of areas it was harder to have sufficient numbers to justify a wider offering. There was also a suspicion on the main campus that the Berry Campus was draining funds from the institution, despite the fact that it was bringing funds into the university. The Head of Campus described his experience:

[The Pro Vice Chancellor] said to me, 'look once we've started go around and see all the Deans and see what they are prepared to offer next year'. The first bloke I walked into was [a Dean]. He tore into me saying that it was my fault that he wouldn't be able to afford audio laboratories next year because the money was to be drained off the main campus and relocated down here. ... He was hostile and I still run into hostility] (Interview, 26/3/00).

Despite strong marketing on the Wollongong campus by the Head he pointed out that, "I have broken it down a bit, that antagonism towards a satellite campus. If you took a vote up there [in Wollongong] you would still be forced to close the doors" (Interview, 26/3/00). This was a clear indicator that although some groups of staff were aware of the purpose of the satellite campus and its funding sources, many were not.

In spite of the importance of the initiative, the message was poorly communicated within the university itself. Although the university had developed strong relationships with external stakeholders, management failed to get internal support where it needed it, even from some at the highest level within the faculties, and certainly not at the level of those who were required to implement the change. However, the pilot project was required to secure funding for the new campus and it was important that the project continued to develop if this was to occur. Whilst the interim campus developed with small student numbers and a small band of supporters, the planning process to secure the funding continued. The next phase of the project involved a study of options to secure funding. This involved identifying a suitable location for the new campus and an exploration of how technology could be used to support the venture.

4.2.4 Planning process for a new campus

4.2.4.1 Funding the venture

As early as July 1993, the university recognised the South Coast, and in particular the Shoalhaven Shire, as significant growth areas with long-term prediction of further significant growth (University of Wollongong, 1993).

A report signalled the start of the facility planning for a Shoalhaven Campus, acknowledged submissions for Federal and State funding were underway and stated the key objectives for the development as:

- A 21st century campus using the latest in telecommunication developments;
- Provision of access to higher education for this growth area; and
- The development of “appropriate teaching and research activities ...that focus on the needs and potential ...of the region and not regard the development as an overflow for the university’s main campus” (University of Wollongong, 1993, p10).

This step highlighted the importance of the venture for the University of Wollongong, the changes it would bring about in teaching and learning and the fact that it would be a separate entity from the Wollongong Campus. The report indicated that the university intended to continue to support the endeavour with a move towards securing external funding.

In 1996, when the interim campus had been running for three years, the *Provision of Higher Education on the South Coast of NSW - Options Study* was finalised for the Department of Employment, Education, Training, and Youth Affairs, formerly DEET (Fuller, 1996). A Commonwealth-State Working Party on Higher Education Provision on South Coast of NSW had commissioned the Options Study Steering Committee to address the following terms of reference:

1. site options for a hub facility in the Shoalhaven area ...as well as suitable locations for at least two access centres to serve the far South Coast regions;
2. options for electronic linkages between the main campus, hub facility and the two access centres including identification of the indicative installation and operating costs of appropriate transmitting and receiving equipment;
3. opportunities for effective cooperation with TAFE and school systems including articulation of courses, co-locations and/or joint use of facilities together with any related capital requirements concerning existing and proposed facilities; and
4. the physical building requirements and on-site infrastructure appropriate for the proposed mix of traditional and electronic modes of course delivery including identification of indicative costs, together with associated off-site infrastructure and related costs. (Fuller, 1996, p3)

Fuller (1996) described the commitment and beliefs of the key partners in the endeavour to establish a campus in the area:

Strong local support for the establishment of the South Coast Education Network is demonstrated by the provision of suitable sites, contributions to infrastructure costs, and the effective consultation and collaborative planning undertaken with Local Government bodies, the NSW Department of School Education, the NSW Department of Training and Education Co-ordination and TAFE NSW. There is a firmly held belief right down the South Coast that access to higher education, linked to improved post-compulsory education offerings, will prove to be a catalyst for much needed regional development and the subsequent creation of employment opportunities for the region's youth. (p1)

The report drew on a number of consultants "including architects, social researchers and communication and information technologists" (Fuller, 1996, p4). The study also involved extensive consultation with a range of people from the local government areas in Shoalhaven, Eurobodalla, and Bega Valley.

4.2.4.2 Locations

The Graham Park Campus was a temporary location as it was considered "too far north of the population growth centres for a suitable permanent facility" (Fuller, 1996, p6).

By 2000, the Head of Campus was well established at the interim campus and demonstrated a commitment to remain at the Graham Park Campus. He predicted other reasons for the move:

You have to allow a little to and fro for the politicians, there is not a better site than the campus here [Graham Park]. Why we ran away from here, I'll never know. You can only guess that egos came into it and politicians came into it and electoral boundaries formed by the river came into it and suddenly we were thrown out of one electorate into another electorate and out in the bush. (Interview, 26/3/00).

The university proceeded with the majority of the recommendations from the *Options Study* (Fuller, 1996). The Shoalhaven Campus was located at the recommended site in West Nowra. This required support from the local community, particularly the Nowra Local Aboriginal Land Council and the local Aboriginal Community, who generously lifted a land claim they had made on the site. Although discussions were still ongoing about a Department of School Education presence, the TAFE relocated its Business School from a location in the main street of Nowra to the new site.

The final statement on the program for the opening of the Shoalhaven Campus acknowledged the contribution of the community: “[we] wish to thank Federal, State and Local governments, the Nowra Local Aboriginal Land Council, corporate and individual sponsors, individuals, volunteers and members of the community for their commitment and generosity over the past 10 years” (University of Wollongong, 2000c).

The recommendations from the Options Study (Adams, 1998; Fuller, 1996) were also followed for one of the other centres. The Batemans Bay Education and Library Access Centre was built on the site of the existing library, incorporating extensive new library facilities as well as TAFE facilities. The Bega Education Access Centre did not become part of the high school redevelopment plan as originally proposed, but was built across the road from the school, and incorporated a high school computer laboratory within the Centre with external access for the school students.

4.2.4.3 The technology infrastructure

Networking and communication technologies were identified early as an integral factor in the success of the venture. Indeed the government expected an exploration of alternative delivery methods, including technology, before it would commit funding (Department of Employment, Education and Training & Baldwin, 1992, p21). Changes to the Higher Education Funding Act meant that capital funding could include costs for technology infrastructure and courseware:

to facilitate the application of technology to improve quality and productivity. This will help encourage more imaginative and cost effective approaches to providing access to higher education and should effect planning for new campuses no less than modes of delivery through established campuses. (Department of Employment, Education and Training & Baldwin, 1993, p35)

The government’s strong support in funding such developments meant that the university could not only apply for funds for the new centres, but could also get funding to improve the infrastructure on the main campus. This would be necessary to support new developments off-campus and to support the university’s strategic move towards finding a niche in the area of telecommunications. The university had already signalled a strategic direction in this area through the early establishment of a Faculty of Informatics; through its research partnership with Nortel, an international telecommunications company; and through the establishment of the business arm of the university, Illawarra Technology Corporation (Castle, 1991).

A number of alternatives were explored, and Fuller (1996) recommended a private microwave network that would allow videoconferencing to all centres, as well as computer network and communication facilities. Although this would mean higher establishment costs, it would be more financially viable in the longer term, as the recurrent costs would be reduced. This would be the better option for the university because the establishment costs would be paid through Commonwealth funding and the university would later start paying the recurrent costs. Fuller (1996) recommended this option because of “its cost efficiency, its ability to be scaled up to meet the expanding needs of the [South Coast Education] Network, and flexible high quality broadband capability it can deliver to each location” (p18).

Initially, the university, the schools and TAFE intended to share this network, however later government legislation blocked this when changes were made to telecommunications legislation which effectively stopped the sharing of such networks, even for educational use (Department of Communications, Information Technology and the Arts, 1997). The new legislation, designed to remove the monopoly of current telecommunication providers, required the university to pay for carrier status. The content service provider status required no payment, but meant that the university was only able to allow access to its immediate circle, that is staff and students only, not other institutions (Australia's Academic and Research Network, 2002).

The university's strategic plan (1997-2005) identified that “a high bandwidth network will provide high quality interactive video, voice and data communication capability between these sites and the main campus, and will be used to deliver courses using innovative teaching and learning methodologies” (University of Wollongong, 1997c, p11). The university had already established a broadband network, using microwave technology, to increase access to international facilities through the Australian Academic and Research Network (University of Wollongong, 1994b, p20). The proposed broadband network on the South Coast would extend this access to the new centres. The university developed the broadband network between Wollongong and Nowra. It waited for other regional telecommunication funding initiatives to be expanded to include Batemans Bay and Bega because of the high costs involved in establishing a microwave link where there was no existing infrastructure to support it. The university contracted Telstra, (the national partially-government-owned telecommunications provider), to provide access between Bega and the other centres through dedicated lines for videoconferencing and other data exchange.

4.2.4.4 Planning issues

The University of Wollongong initiated the pilot campus in 1992 to convince the Federal Government of the viability of setting up a university campus in the Shoalhaven region. The new campus initiative received funding in 1996 and planning commenced for the Shoalhaven Campus and access centres at Bega and Batemans Bay. During the pilot stage of the project, details of the initiative were not disseminated well to academic staff at the main campus.

Through identification in the University Strategic Plan, management was able to signal to staff the importance of the venture for future directions (University Education Committee, 1997). However, as funding was generally not discussed in public forums, relying instead on dissemination through the committee structure and planning documents, academic staff may still not have been aware that funding was provided for the initiative through a government grant. They may not have understood the purpose for the initiative, something they clearly needed to do for the success of the venture.

The corporate management style in evidence at the university was also resisted by academics, particularly those in the Faculty of Arts, who favoured the collegial decision-making efforts that were the norm for the faculty.

External imperatives were the drivers for change at the institutional level. Within the institution, stakeholders needed to share the vision and understand the rationale for development in the South Coast region. The previous section has examined the chronology of events for the initiation of the innovation. The next section examines the perceptions of the rationale for the initiative.

4.2.4.5 Perceptions of the South Coast initiative

Despite the lack of knowledge about the project indicated by some staff, many of the executives interviewed as part of this study showed a clear understanding of the nature of the project. Institutional documentation and reports were also available to provide background information about the initiative and were provided to the researcher on request, though often stored on the hard drive of an individual's computer, further indicating a lack of dissemination to staff.

The reason for expanding the campus to include the South Coast locations was multifaceted. In the Shoalhaven Campus Opening program, the primary objective for the formation of the South Coast Education Network was “to provide regional economic and social growth on the South Coast of New South Wales through the provision of education, training, research and development opportunities” (University of Wollongong, 2000c).

Whilst this public statement of purpose provided one goal for the move into the southern region, there were other reasons for engagement by the university. These included issues such as financial incentives, increased participation in higher education, competition for students, and improving the quality of teaching and learning. The initiative drew on emerging technological developments, raised the profile of the university to ‘claim the territory’ of the South Coast, and developed relationships with other educational providers, for example, through articulation of course between TAFE and university. It also retained tertiary students locally, and improved and provided employment prospects.

The next sections examine the reasons in more detail. Quotations from interviews, focus groups and through various support documents provide insights into the perceptions of various stakeholders of the purpose for the initiative.

4.2.4.6 Financial incentives

As discussed earlier, access to funding was a primary motivational factor for the university to expand beyond the local campus, as the Federal government reduced public funding for the sector. Indeed, it was a priority for many universities at this time of increasing enrolments and reduction of funding, as indicated by the relevant funding reports (DEET & Baldwin, 1992; DEET & Baldwin, 1993; DEET & Beazley, 1994).

Table 4.1 Perception: Access to growth funds	
Establishment of pilot campus	[Graham Park] was really held together for 4 or 5 years in order to be able to lodge and get our bid accepted by both State and the Commonwealth for funding for the Shoalhaven campus. (Development Officer, 20/1/00).
Financial incentives	I mean they know that they get some money in terms of development and I think that is partly appreciated by some but by others it is taken for granted that if they've got to develop something new the money has got to be there. (Dean of Arts 21/1/00).
	This is why Graham Park [Berry] was set up, to attract those (growth) funds. (Head of Campus, 26/3/00).

4.2.4.7 Participation rates

A framework for educational equity in higher education designed to increase access and participation, identified a number of groups that had been marginalised from university participation, including low socio-economic status students, students with a disability, women, Aboriginal and Torres Strait Islanders, rural and isolated students and those from a non-English-speaking background (DEET, 1990).

The framework also pushed for the improved retention, progression, and success of these groups. Further reports continued to identify the need to improve access for these students (NBEET, 1995; 1996). A later study, which aimed to evaluate the status of equity in the higher education sector, concluded that: “within the existing framework, a clear trend is the lack of progress of the socio-economically disadvantaged and people from rural and geographically isolated areas (Postle et al., 1997, pxii).

The Options Study undertaken for the South Coast identified the area as significantly disadvantaged in terms of participation of these groups and their access to higher education (Fuller, 1996). The study identified the unique circumstances that:

existed in South Coast communities, such as: higher than average rates of unemployment, lower than State and National average participation rates in secondary education, lower than average family incomes, a lack of access to Higher Education facilities, relatively poor infrastructure in the region and population growth that is substantially higher than the State average. (Fuller, 1996, p3)

The education participation rate as a percentage of the 12 to 24 year-old cohort (see Table 4.2) was well below the state average.

Table 4.2 Educational participation in the 12-24 year age group*				
Region	NSW	Shoalhaven	Eurobodalla	Bega Valley
% Male attending	59.29	54.69	56.38	52.49
% Female attending	59.35	54.65	56.97	55.02
Total attending	58.83	54.66	56.68	53.58

*Adapted from Table 1A, derived from NSW Office of Youth Affairs 1994 local area youth profiles, Table 6 for each of the relevant Local Government Areas (University of Wollongong, 1995, Appendix A).

The figures highlighted the need for better access to higher education for rural students, since the percentage of those not participating in education of any kind in the age group varied from 2% at Eurobodalla (Batemans Bay area), 4% in Shoalhaven to more than 5% in Bega below the state average. This may not be a true reflection of the impact since many young people leave the area to find work or to participate in further education (University of Wollongong, 1995, Appendix A).

The perception that students wanted local access to higher education is supported by the comments in Table 4.3.

Table 4.3 Perception: Improve educational equity and access	
Reasons for enrolment	<p>...you don't have to leave home to study was one of my main reasons (Student 1)</p> <p>I would agree with that one, being close to home ...(student 2) and I've got kids (student 3) (Focus group, 30/5/00).</p>
Insufficient funds to attend university	<p>We proved quite conclusively that there were sufficient households between the Victorian border and Kiama shire that were impoverished in terms of disposable income and were impoverished in terms of educational opportunity and educational achievement and Yr 12 levels. Putting that package together you then have a very strong case that says even if students are clever enough to survive secondary schooling on the South Coast chances are mum and dad wouldn't have enough money to send you anywhere unless you have a scholarship (Development Officer, 20/1/00).</p>
Increase access	<p>To provide enhanced access to and equity in quality post-compulsory level education and training on the South Coast of NSW leading to increased enrolments (University of Wollongong, 1997b, p1).</p>
Educational disadvantage	<p>In all areas, there is a common perception that the inability of residents to access adequate post-compulsory educational facilities continues to be a ongoing source of disadvantage, reflected in the outflow of the brightest and best of each generation of school leavers (Illawarra Regional Information Service, 1996, p52).</p>

Table 4.3	Perception: Improve educational equity and access
Economic, social and educational disadvantage	<p>The region is one of significant social disadvantage, it is currently typified by:</p> <p>low incomes (with the 1991 Census reporting that over 65% of persons aged 15 or over earned below \$20,000 as opposed to a state average of 56.69%, while less than half of the state proportion earned over \$60,000);</p> <ul style="list-style-type: none"> • lower than average school retention rates, and therefore a low participation rate in post compulsory education; • very poor transport infrastructure with no railway services south of Bomaderry, and a road network that deteriorates in quality south of Shoalhaven; • an out-migration of the 17 to 24 year age cohort, and out-migration of the 40 to 50 year age cohort; • a higher than average aboriginal (sic) population (182% of the NSW average in Shoalhaven, 253% of the NSW average in Eurobodalla); • high population growth, with the high school population of the South Coast growing by 3.4% from 1994 to 1995" (University of Wollongong, 1995, p2).

4.2.4.8 Competition for students

Claiming the territory of the South Coast before another institution did was a focus as universities were forced to become more competitive for their students as government funding sources continued their downward spiral (Yetton & Associates, 1997). Students' preferences for university placement in their final year of high school reflect the necessity to compete for students in the area. In the university's submission to the Federal government in 1996 they stated:

For the 1995 academic year, there were 824 applications from the region through the UAC system, for places at NSW universities, with 500 (60.6%) from the Shoalhaven LGA. The University of Wollongong was selected by 250 of the 824 [South Coast potential students] as the first preference institution (30.3%) or two and a half times more often than the next highest preferred institution (the University of Canberra) being the preferred first choice institution for 100 (12.1%) of applicants (University of Wollongong, 1995, p2).

For the University of Wollongong, there is evidence of this competition on the South Coast, where the university was competing with Canberra-based universities, and some other strategic locations. The university has developed:

- the Sydney Business School, in the heart of the Sydney;

- the new Moss Vale Access Centre, to claim the Southern Highlands, opened in 2002;
- the new Access Centre at Loftus, opened in 2003, to provide a presence in the southern suburbs of Sydney.

The purpose is not only to gain students in these areas as identified, but also to maintain a presence in the local community so that potential students will consider the University of Wollongong as their first option when choosing a university.

Table 4.4 Perception: Competition for students	
Compete with other universities	... remembering also that our competition, they move fairly swiftly.... We were conscious of the fact we had to steal up on the opposition, as it were to be able to offer a full degree and a new style of operation and offer some face- to-face presence (Development Officer, 20/1/00).
Loss of students interstate	... although increasingly strongly orientated towards the University of Wollongong, regional students have also been enrolling in increasing numbers in the state's non-metropolitan universities and, from the Bega Valley LGA, in Victorian institutions (Illawarra Regional Information Service, 1996, p101).
	...[the] University in Canberra are actually biting at the heels of what is supposed to be our patch, but in fact they saw it as their patch until we did what we've done. Earlier on the students down that way [would] go to Canberra, the trend has just been changed (Dean of Arts, 21/1/00).

4.2.4.9 Teaching and learning quality

A need to improve the quality of teaching and learning has become an imperative for many universities, and the University of Wollongong addressed this need through its Learning and Teaching Strategic Plan (University Education Committee, 1997). This was acknowledged through “a number one ranking in the three years of the DEET Quality Assurance rounds” (Yetton & Associates, 1997, p25). A number of issues contributed to this need, including changes in government funding policy, increased competition between universities for students, the move from an elite to a mass system to meet the needs of wider range of students - but also as graduate employment statistics revealed the need to be more competitive. New information and communication technologies were also making an impact, especially for accessing information and increasing interaction between students and staff, and were seen as the foundation for a move to flexible delivery of subjects, to satellite campuses both onshore and offshore.

The University of Wollongong, through the Educational Innovation Subcommittee of the University Education Committee, introduced a coordinated plan for staff development in this area and funded pilots for a number of subjects to trial the new technologies. This strategy influenced subjects and individuals, but did not influence campus teaching as much as the Pro-Vice Chancellor (Academic) had hoped. She saw the South Coast initiative as a way of encouraging flexible delivery, with its imperative of using technology to underpin teaching and learning (Interview, PVC (A), 20/1/00). Table 4.5 provides comments from a number of executive and planning documents about this area.

Table 4.5 Perception: Improve teaching and learning	
Rethinking teaching	For me personally I was convinced about it [the innovation] because I saw it as a good way into changing and rethinking the ways in which humanities and social sciences could be taught. So not simply a matter of delivery but really an opportunity to rethink what it means to teach and in some ways it's providing a, I can't say teaching qualification, but a teaching experience for people. The opportunity to think differently about their teaching (Dean of Arts, 21/1/00).
Influencing changes to teaching	South Coast Project ... made us come to grips with university teaching ... won't be the same again... the way we do things ... the tools we use ... (PVC (A) Videoconference presentation to CEDIR staff, 23/9/00)
Impact on campus	Once you had a campus that was delivering to another campus ... and you're trying to do that cost effectively [since] it isn't viable in its own right. Therefore, people had to rethink their teaching and I am hoping that that will have an impact on the way we teach on campus (CEDIR Director, 12/5/00).
	... changing the way that the Arts faculty thinks about teaching and learning ... to see about that in terms of how the lessons learned in this [South Coast] can then be applied to the faculty (A/Dean of Arts, 22/1/00).
Technology support	The network would draw upon emerging educational technological developments to expand the availability of, and improve accessibility to, relevant educational programs (Illawarra Regional Information Service, 1996, p1).
	A high bandwidth network link will provide high quality interactive video, voice and data communications capability between these sites and the main campus, and will be used to deliver courses using innovative teaching and learning methodologies (University of Wollongong, 1997c).

4.2.4.10 Intersectorial partnerships

A government agenda of linking education providers was supported in this South Coast initiative through the enforcement of partnerships among the sectors, a key requirement for the university to access additional Federal funding. It provided an opportunity to develop better relationships with TAFE and schools, with the long term aim of increasing student numbers through the development of a lifelong learning focus and also to seek opportunities for articulation between the providers, as represented in Table 4.6.

Table 4.6 Perception: Partnerships with other education providers	
Resource sharing	[SCEN] provides opportunity for the development of working partnerships between University of Wollongong, TAFE NSW, and the NSW Department of School Education, in terms of integrated curriculum planning, flexible delivery of courses, learning support services and the joint use of some facilities... (Fuller, 1996, p2).
Improve articulation between education providers	The aim is to develop a comprehensive cross-sectionally articulated plan for the delivery of effective post-compulsory education and training across university, TAFE, secondary school and other training sectors (Illawarra Regional Information Service, 1996, p1).
	Avenues for articulation from university to TAFE and vice versa and for concurrent study towards combined qualifications will be planned specifically for the areas of study available in the South Coast Network as part of the curriculum planning and approvals process (University of Wollongong, 1997b).

4.2.4.11 Provision of employment

Increasing access to employment opportunities was on the agenda of many of the stakeholders, as shown in Table 4.7. Since the South Coast areas had high unemployment rates, the new centres provided some employment opportunities for local university graduates and those participating in postgraduate study. In Wollongong, the centres provided employment opportunities for Wollongong tutors, who travelled to Nowra, and supported contract staff seeking a permanent position on campus. The centres also provided potential opportunities for future employment for students when they graduated.

Table 4.7 Perception: Provide employment	
Opportunity for employment	I've been teaching here in modern languages for five years and at the uni for nine years. Various casual and fixed term contracts, but I think that's all about to end (Interview, 6/9/00).
	(The) framing of the committee early was getting all these on contract people (involved) in the hope of keeping them. (Associate Dean of Arts, 22/1/00).
Improve work prospects	We have the highest unemployment in the state down here. Things are tough. Every one of our students here will tell you that they are doing the degree ultimately, first of all, in the hope of getting a better job and then there is all the other good flow on reasons (Interview, 31/5/00).
	There is a firmly held belief ...that access to higher education, linked to improved post-compulsory education offerings, will prove to be a catalyst for much needed regional development and the subsequent creation of employment opportunities for the region's youth. (Fuller, 1996, p2).

4.2.4.12 Retention in local community

The availability of a local university education meant that people who may have left the area were able to stay where their local support services, including family and friends, were available. Local politicians had expressed concern about the movement of rural youth to the cities and the trend for those who attended university in the city not to return. There were also equity issues for families unable to support their children to attend university away from home, and adults unable to attend university because of family and work commitments. Table 4.8 identifies the perceptions of stakeholders.

Table 4.8 Perception: Retain students in the local community	
Contemplating departure for study	<p>I'd been thinking about moving for about two years, so I could go to study (Focus group, 1/6/00).</p> <p>I thought about moving out of the area so I could study full-time somewhere and read about this in the paper, and that was it, I was here (Focus group, 1/6/00).</p>
Financial incentive	<p>Parents have been relieved of that [financial and emotional] burden and you are able to send your offspring to the local place while the offspring still lives at home. (Head of Campus, 26/3/00).</p> <p>A heavy burden of support is also often placed upon the parents of those youngsters who do leave to access further education (a figure of \$10-12,000 annually was commonly cited as the cost of maintaining a dependent student away from home (Illawarra Regional Information Service, 1996, p52).</p>
Balance work and study	<p>And a lot the jobs around here are part-time so they can fit in studies as well and better themselves and build up the resources, and they can take those skills back into the community and regenerate (Centre Coordinator 30/5/00).</p>
"Brain drain"	<p>The community had been losing too many of their young people to other areas due to the lack of a high standard education facility 'It was a brain drain' she said (Joanna Gash, Federal member for Gilmore, Illawarra Mercury, June 3, 2002).</p>

4.2.5 Discussion

The reduction in funding for higher education during the 1990s was driven by increasing political and economic pressure for accountability and quality assurance. One area in which growth funds were available was for the provision of satellite campuses, allowing improved access for rural students to higher education and an expectation that the students would be retained in the local community. The government identified new developments in computer technology as a way to support this move and provided funds for initiatives in this area, despite little empirical evidence of the benefit to higher education (Taylor et al., 1996).

From the early 1990s, the University of Wollongong signalled its intention to set up a satellite campus, with access centres, on the South Coast of NSW. The executive of the university initiated and supported the innovation at the highest level and spent considerable time and effort gaining support at local, State and Federal government levels to secure funding for the initiative. They worked at developing relationships with potential partners within the school and TAFE systems. A champion for the initiative, the Head of Graham Park Campus, was recruited early. He shared the vision of the executive and developed relationships with the local community to ensure the success of the interim campus. The purposes were not clear to all stakeholders in the program and this may have been a contributing factor to a lack of support on the main campus, particularly when key members of staff believed campus funds were supporting the project.

Although the vision and the strategic planning processes were in place for the new venture to occur, many of those teaching at the main campus may not have shared that vision or realised the importance of it to the university, a common issue identified in the literature (Eckel, Hill et al., 1999; Fullan, 1993; Senge, 1992). The university encouraged wider ownership of the project by publicising the nature of the innovation to the campus community, and gave recognition and credibility to those already involved in the interim campus (University of Wollongong, 1993).

For many academic staff, teaching at the interim campus was additional to their primary role of teaching and researching in Wollongong. Even though financial rewards were provided to teach at the new centre, it was insufficient motivation for the increase in workload required and many subjects were taught in a traditional way, with only limited trials of new teaching methods or use of technology. Research shows that the incentives to innovate are related to improving the quality of teaching and learning or “when circumstances are such that they have no choice but to depart from their old methods to cope with new demands” (Hannan & Silver, 2000, p32). It would seem that these circumstances were not sufficient for the interim campus, where the teaching did not require a rethinking of methods for many of the staff involved. The need for a shared vision is paramount for the successful implementation of change. Without it managers may get compliance but not commitment from the people who are implementing the change (Senge, 1992; Silver, 1998). At the interim campus, there was compliance rather than commitment to change from some of the academic staff involved.

In 1996, the use of information technology in teaching and learning was still viewed with some suspicion by many academics in Australia, though an increasing number were beginning to experiment with possibilities to improve the learning experience for students (Hesketh, Gosper, Andrews, & Sabaz, 1996; James & Beattie, 1996; Taylor et al., 1996). For the University of Wollongong, access to development funds supported new strategic directions that allowed it to position itself as a leader in the telecommunications area. Early trials indicated that the existing telecommunications infrastructure at the Wollongong campus and between Wollongong and the South Coast required improvement if it was to support new teaching and learning developments using technology. The early trials highlighted the need for staff development and student support when using technology in teaching and learning, issues also highlighted in the literature (Ehrmann, 1997; Laurillard, 2002).

Whilst a major purpose for the new campus was to increase funding for the institution, the rationale for the enterprise included: increasing the participation of equity groups; rising competition for students; improving the quality of teaching and learning through the use of technology; forming partnerships across the educational sectors; providing employment; and retaining university graduates in the local community. Although planning documents signalled some of these intents to the university community, they were not promoted well at the grass roots level - an important step in getting commitment from those who would eventually implement the innovation, according to the literature (Fullan, 2001b; Scott, 1999).

Some academic staff demonstrated compliance to achieving the goals but many lacked commitment to its implementation at this stage, which can be expected “when someone else defines objectives, goals, and the steps to be taken to reach them” (Argyris, 2000 p41). Argyris (2000) suggests that internal commitment “derives from energies internal to human beings that are activated because getting the job done is intrinsically rewarding” whilst external commitment “is triggered by management policies and practices that enable employees to accomplish their tasks” (p40). In a period of rapid change where perceptions were that institutions did not reward teaching well, putting extra time into curriculum development for this initiative was most likely to gain compliance from some academics and outright refusal from others (Ramsden, 1998).

This initiative occurred at a time where the push for a corporate management style was not well received by academics who favoured the traditional collegialism (Coaldrake & Stedman, 1998; Gallagher, 2000; Meek & Wood, 1998). This idealistic view of collegialism is identified in the higher education leadership and administration literature as not representative of reality in Australian universities and is portrayed as a method for resisting change (See, for example Coaldrake & Stedman, 1998; Meek & Wood, 1998; Ramsden, 1998). Imposed innovation that uses a rational, top-down approach may form the basis for a lack of enthusiasm in such a climate and can result in resistance, a result well documented in the literature (Fullan, 2001a, 2001b; Trowler, 2002). However, Fullan (2001b) suggests that when people are empowered during the process they may engage in the initiative and develop ownership over time.

In the literature on change, the stages of initiation and implementation create tensions for the stakeholders as they can be both interactive and loosely-coupled - that is responsive, whilst staying separate (Fullan, 2001b; Orton & Weick, 1990). However, where support has not been gained for the project during the initiation stage, it can still be gained during the implementation stage. Fullan observed that the "process of initiation can generate meaning or confusion, commitment or alienation, or simply ignorance on the part of the participants and others affected by the change" (2001b, p67). He contends that poor beginnings can become successful, but this is dependent on what happens during the implementation stage (Fullan, 2001b).

For the University of Wollongong, there was support at the highest level for the establishment of a satellite campus and access centres on the South Coast. There was also support for the initiative outside the university in local, State and Federal government, ensuring funding was secured for the project. However, for the interim campus, poor communication and lack of ownership meant there was not strong support from academic staff in Wollongong, who treated the exercise with suspicion. It was necessary to improve on the poor beginnings in order to achieve a successful outcome for the project.

This first section of this chapter has described the context for the initiation of a change process, preparing and planning for a satellite campus by the University of Wollongong. It has examined the impact on the university of external factors such as the need to secure funding for the new centre and to make use of new technologies for teaching and learning. It described the early teaching experiences on the South Coast and the establishment of an interim campus. Finally, it reviewed the major points of the rationale for establishing the satellite campus and access centres.

The next section examines the initiation process within the university more closely through the complex planning processes, the structures, and the roles of those involved. It investigates the development process undertaken by the Faculty of Arts, whose members would be involved in the implementation, as they developed ownership of a new degree program and planned for the implementation of the new degree.

4.3 Organisational development

4.3.1 Introduction

Although the focus of this study is on the first year of implementation of the Bachelor of Arts (Community and Environment), the project did not happen in isolation. The degree was part of a wider change agenda, fundamental to which was the desire to establish a satellite campus and access centres on the South Coast of NSW.

The initiative occurred within a national and institutional context of intentional change to improve the quality of the university experience for students. The university signalled its directions for improving teaching and learning using technology, through increased flexible, student-centred modes of delivery and course development, and through the provision of resources and staff development to support the change (University of Wollongong, 1994a). The provision of teaching at the new satellite campus provided an imperative for change in administration, teaching practices, and support, which may not have occurred as quickly in the on-campus environment without such a public goal.

The pilot stage of the initiation process leading up to the decision to proceed spanned the years from 1992 to 1996. The context for the process is described further through an overview of the organisational development process that the university underwent to achieve the goal of establishing a campus and access centres on the South Coast and to prepare for teaching and learning in these centres in 2000. It examines the organisational factors involved in the initiation process. This discussion is placed within the context of a wider change agenda in the university, which initially used a “top-down technical-rational approach to change” driven by pressures for external accountability and quality improvements (Trowler & Knight, 2002, p144). The external management structures and the internal structures that the university put in place for the initiation process are discussed, in relation to other change processes on the main campus. The section reviews the initiation process at the institutional level and at the faculty level to take the project forward to the implementation stage.

4.3.2 Timeline for development

Planning for change is not a linear process. The stages of initiation (including piloting), implementation and institutionalisation are continuous and interactive, and decisions at one stage can be changed at another stage (Fullan, 2001b; Trowler & Knight, 2002). In the focus of this study, the initiation stage involved the process of setting up structures and practices that were new to the people involved, at the institutional and faculty level, from 1992 to 2000. At the institutional level, it required new administration practices, new technology and teaching support, new library practices, and new policy decisions. At the faculty level, it required new ways to interact with the myriad of support groups on campus, the formation of collaborative partnerships outside the academic department, and the development of new teaching methods using technology.

This section provides an overview of the development to support the new practices required, by first viewing the timeline of some of the developments that occurred during the initiation and the early implementation stages. There were three levels of development underway: facility, institutional, and faculty. These are summarised in Table 4.9. The facility developments column gives an overview of the development process from interim campus to new facilities. The institutional developments column highlights the progress in setting technological and other support structures in place, and to set strategic policies in place to move the university in the direction required to achieve the change. The third column outlines the processes followed by the Faculty of Arts, including teaching at the interim campus, before the faculty determined the new degree structure that would be available in 2000. The remainder of this chapter describes and discusses the three levels of development.

Table 4.9 **Timeline of key developments**

Year	Facility development	Institutional development	Faculty development
1992	Plans announced in December. Site selected for interim campus in Berry with support from Shoalhaven Council. Five possible sites short-listed.	Technology trials carried out using local high school as base, indicating infrastructure and available technology required further development to support such initiatives.	
1993	Interim campus leased at Graham Park, Berry (20 minute drive north of Nowra) with 15 students.	Working party established to coordinate plans for new campus (University of Wollongong, 1993, p10).	First year subjects of Bachelor of Arts offered. Lecturers travelled to Berry or sent videotapes of lectures.
1994	Interim campus continues with 32 students.	Microwave link extended to Wollongong from Sydney network to improve access to international AARNET. Educational Services Development Unit established to support teaching and learning with technology.	Lecturers continued as before. Some local tutors employed.
1995	Interim campus continues with 48 students. Shoalhaven Council purchased Graham Park Campus 7th September and leased to the university for \$1 per annum from 1st January 1996.	Joint Commonwealth-State Working Party on Higher Education Provision on the South Coast of NSW. university submission to Working Party highlighted the need in the area (University of Wollongong, 1995).	Lecturers continued as before. Some local tutors employed.
1996	Steering committee for Options Study first met in April. Options study report finalised in September (Fuller, 1996).	Learning and teaching strategic plan developed as a policy framework, which devolved responsibility to the Faculties for educational quality. Academic Services Division formed, under the leadership of Pro-Vice Chancellor (Academic) including Educational Media Services (EMS), which later became CEDIR.	Flexible Delivery Working Party set up to identify subjects for new degree. Some use of alternate delivery methods for on-campus subjects, including self-study materials, multimedia and communication technologies.
1997	Notional funding approved for expenditure in 1999 and preliminary funding provided by Federal government.	Strategic Plan for Flexible Delivery (1997-1999) developed that identified the Shoalhaven Campus as one of the main priorities (University of Wollongong, 1996b, p18).	Alternate delivery methods using technology piloted at Berry campus and in some on-campus subjects.

Table 4.9 Timeline of key developments

Year	Facility development	Institutional development	Faculty development
1998	Shoalhaven shared-facility land ownership transferred to the Minister for Education and Training on the 14th August. Bega facility land purchased for \$90,000 in October (University of Wollongong, 1998, p35). Batemans Bay shared facility on local council land. Lease for Graham Park extended until 2000.	New government reporting requirements provided indications of expenditure, with an actual budget for Graham Park of \$199,000, with \$448,000 allocated for the following year. For Shoalhaven development actual is \$65,000 with \$2,417,000 allocated for the following year (University of Wollongong, 1998, p46).	South Coast Project Group (Arts) established to develop a flexibly delivered degree, initially to the South Coast (University of Wollongong, 1998, p19).
1999	Building program for Shoalhaven began in January completed in May 2000. Building of Batemans Bay Centre began in April 1999, completed September 1999. Building of the Bega Centre began in April 1999, ready in February 2000.	Microwave link established between Berry and Wollongong. Vice Chancellor's report states that the South Coast initiative "will demonstrate the capability of flexible delivery mode and the effectiveness of the telecommunications technology" (University of Wollongong, 1999b, p4).	Videoconference teaching trial between Graham Park and Wollongong, with students in each location. Other subject delivery methods trialed in Wollongong. First year subject development near completion (University of Wollongong, 1999b).
2000	Bega and Batemans Bay began operations at start of Autumn session. Shoalhaven students returned to Graham Park Campus until after Easter. Official opening of centres in Shoalhaven (June), Batemans Bay (March), and Bega (July).	University jointly wins the Australian University of the Year Award for 'Preparing graduates for the e-World'. The Vice Chancellor highlights: "Interactive teaching technologies...are a key element in the educational strategies underpinning development of the South Coast campuses" (University of Wollongong, 2000a, p6)	Bachelor of Arts (Community and Environment) on offer at all sites. Subject development continues for other subjects. South Coast Project (Arts) group continues to meet irregularly to discuss developments and issues.

4.3.3 Institutional structures

4.3.3.1 Planning and development structures

Against this background, the university set in place structures to manage the initiative. Figure 4.1 demonstrates the committee structure that was established or that evolved, and shows whether internal or external membership was involved. It indicates key members of staff and some of the committees on which they served. It also highlights the complexities of managing the project. The committee structure changed over the period 1995 to 2000, so this figure reflects changes and transformations in this period. For pragmatic reasons not all committees involved are shown, but it identifies the ones significant to the Faculty of Arts. The Pro-Vice Chancellor (Academic) was primarily responsible for the initiation stage of the innovation, and much of this responsibility was delegated to the appropriate people and committees.

These management structures included committees both inside and outside the institution to manage the task. Before funding was approved, external committees were put in place to define operational agreements with the partners in each centre and to source funds, develop plans and ultimately oversee the building of the centres. The South Coast Education Network (SCEN), set up in 1997, became the overriding body for facility planning, development of the sites, and external partnership agreements.

Table 4.10 shows the external committees that the stakeholders formed in the planning and development phase of the project. It identifies the sources of membership and their apparent or identified roles. Many of the early meetings were informal. As a result, documentation such as minutes of some of the preliminary meetings is not attainable.

However, informal discussions with members indicated that SCEN served as a reporting mechanism for the partners to share their involvement in the planning stages. The planning groups completed the details for the building infrastructure and negotiated the agreements between the partners. The South Coast Technology Network (SCTN) sought partnership agreements and funding to improve access to technology for all of the South Coast, including the education providers. The University Development Officer was the link between the groups and was involved at all stages of the planning.

Table 4.10 External committees involved in planning and development

Committee	Membership source	Role
South Coast Educational Network (SCEN)	<p>University of Wollongong (UoW)</p> <p>NSW Department of School Education (DSE)</p> <p>NSW Technical And Further Education (TAFE) through Illawarra Institute of Technology (IIT)</p> <p>Shoalhaven City Council (SCC)</p> <p>Eurobodalla Shire Council (ESC) Bega Valley Shire Council (BVSC)</p>	<p>To advance post-compulsory educational opportunities on the South Coast (Minutes of SCEN meeting, 16/5/97).</p> <p>Engaged in the overall planning of all structures and negotiation of contracts required as representatives of the partners.</p>
<p>Shoalhaven Campus Planning Group</p> <p>Batemans Bay Access Centre Planning Group</p> <p>Bega Access centre Planning Group</p>	<p>UoW</p> <p>TAFE</p> <p>DSE (Bega)</p> <p>Relevant local government body: SCC, ESC or BVSC</p>	To design, plan, and manage the campus and access centre facilities.
South Coast Telecommunications Network (SCTN)	Shoalhaven, Eurobodalla and Bega Valley Councils, SCEN (UOW, NSW DSE)	To enhance telecommunication access through the provision of high-speed broadband telecommunications infrastructure on the South Coast of NSW (Herrick, 1999).

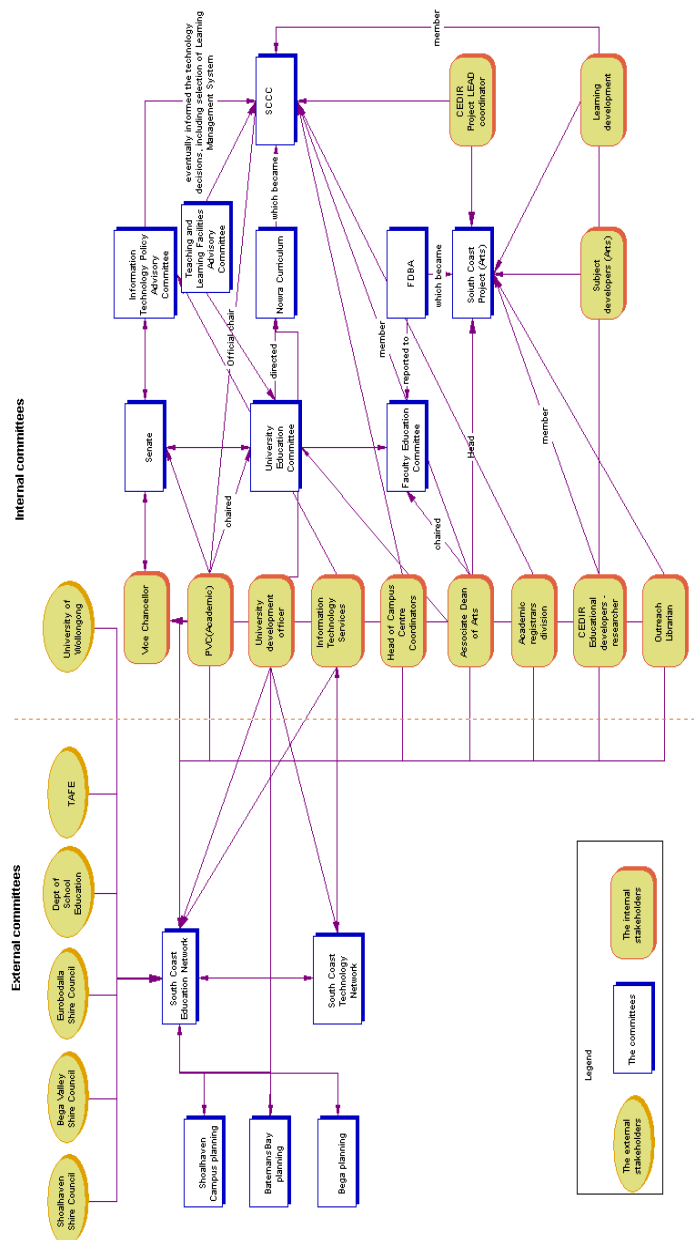


Figure 4.1 South Coast planning and development structures

4.3.3.2 Support structures

For the University of Wollongong, the new developments on the South Coast provided an arena for making changes on campus to aspects of support services, including teaching and learning support for incorporating educational technology.

The principal responsibility for supporting faculties in their adoption and utilisation of technology within their teaching practice lay with the Centre for Educational Development and Interactive Resources (CEDIR) at the University of Wollongong. This was a relatively new support function within the university and included audio-visual services, interactive multi-media production, text production, and academic staff development. CEDIR's academic staff members carried out the educational development role of fostering innovative curriculum design, development, and delivery. Each Educational Developer worked with a specific faculty as their professional responsibility.

The Educational Developer (Arts), the researcher, had the brief to facilitate the development of the Bachelor of Arts degree for the South Coast. This role proved to be problematic in the early stages because of the limited communication among the many interest groups, and suspicion of CEDIR's purpose specifically and of the technology generally. The Library and Student Services had more established relationships with the Faculty of Arts, and worked closely with the Educational Developer to facilitate the development of the new degree. Representatives of these groups were working with individual academics and subject development teams, and served on many of the committees involved. They sometimes provided the communication link between the disparate groups (Curtis et al., 1999).

There were other support services involved in this process including Information Technology Services (ITS), the Strategic Planning Unit (SPU), and Academic Registrar's Division (ARD). ITS planned the technology infrastructure, the layout of the networks and eventually collaborated with CEDIR and academic staff to ensure that the layout of the centres met the teaching and learning needs of the faculty.

SPU and ARD worked collaboratively on designing new systems for online student enrolment and communication (Student Online Services or SOLS), staff records (WebKiosk), and a new system for registering student marks and communication with students (Student Management Package or SMP), which would be used across the university. The Library increased subscriptions to online journals and databases, and collaborated with CEDIR to produce online training. These new systems were under development for use on campus but the South Coast provided an imperative for completion by 2000. The Library was also engaged in the planning of the new library at Shoalhaven and developed relationships with local libraries to provide services for students at Bega and Batemans Bay.

However, the situation was complicated by the seemingly uncoordinated actions of a wide range of committees and workgroups underpinning the South Coast initiative in the early stages of development (Curtis et al., 1999). The actions of the different planning groups were reported to the committees, but the information received was either not disseminated to those in the faculties involved in subject development, or the implications were not understood. A communication gap between the planning groups and those who were designing subjects for the satellite campus existed. The following sections identify the different institutional committee structures that supported the planning process within the university. Some of these were high-level or administrative committees working outside faculties, which in the early stages had little input from those who would be implementing the new teaching methods on the South Coast. Improving communication among the groups and engaging the academics who would implement new programs was essential to the success of the venture and an external change agent, funded through an external grant, was brought in to support the wider agenda for change.

Project LEAD

The university management recognised the problematic nature of the organisational development, and successfully applied for funds for a Committee for University Teaching Staff Development (CUTSD) project for 1998 entitled *Management and Leadership Development for Flexible Delivery: An Action Learning Program* (Wills & Piela, 1997).

The aim of the project was “to create the culture of a learning organisation and bring about improved learning outcomes through combination of workshop and action learning for Deans, Heads of Units, and key administration staff of flexible, student-centred teaching” (Wills & Piela, 1997, p6).

The Project LEAD coordinator facilitated this process through her work in 1998, leading to an extension of the project for 1999. On-campus the project became known as ‘Project LEAD: Leading and Evaluating Advancements in Delivery’. The major objectives of this staff development organisational learning project were:

- Increased ability to lead and to participate in teams and work groups;
- Enhanced understanding of the meaning and implications of flexible learning environments for processes, systems and structures and personal growth;
- Targeted improvement of resources or infrastructure for provision of flexible learning environments? (Curtis, Wills, & Piela, 2000, p2)

The project targeted groups of staff involved in flexible delivery initiatives on campus, and many of the South Coast groups were part of the initiative. The coordinator's role in the process was "to facilitate the development of collaborative, self-directed action learning teams and work groups" (Curtis et al., 2000, p4). She stressed the role of the participants in the process. They "used their respective shared concerns as the vehicle for learning and for improving practice in relation to flexible learning environments" (Curtis et al., 2000, p4).

The coordinator's role as an external change agent was pivotal in the change process. The following sections include further details of her contributions specifically to South Coast committees and processes, as well as the institutional committees involved.

Institutional committees

There were a number of institutional committees involved in the systematic change initiatives in the University of Wollongong. Some, like Senate and the University Education Committee, were involved due to their role in the management of the institution.

Others had more specific roles and impact on the South Coast. They included the Information Technology Policy Advisory Committee (ITPAC), Teaching and Learning Facilities Advisory Committee (TLFAC), the Educational Delivery Information Team (EDIT) and the South Coast Curriculum Committee (SCCC). The contributions to the planning process of these specific committees are identified in the following sections.

Information Technology Policy Advisory Committee

The Information Technology Policy Advisory Committee (ITPAC) provided advice to the executive on the policy and planning for information technology in the university, including strategic planning. ITS reported to this committee on the planning for the network on the South Coast, as well as planning for computer laboratories in the new centres. However, this was a high-level committee and influenced by the reports from its membership. They did not consult with academic staff about the policy changes. Table 4.11 provides an overview of the membership and the functions of this committee and its sub-group.

Table 4.11 Information Technology Policy Advisory Committee: members and functions		
Committee	Membership source	Functions

Information Technology Policy Advisory Committee (ITPAC) 1997 - ongoing	Deputy Vice-Chancellor (Chair) Vice-Principal (Administration) Dean of Informatics (Secretary) Dean of Creative Arts University Librarian	To advise the University Executive on: major issues related to Information Technology (IT); <ul style="list-style-type: none"> • priorities for major IT investments; • decisions on major IT developments of any nature; • University wide strategic planning issues relating to IT; • development of the university IT Strategic Plan; • guidelines for the university and individual unit IT plans; and • the budget for university IT infrastructure (University of Wollongong, 2000b).
Information Technology Purchasing Advisory Group (ITPAG) 1997 – ongoing. Reported to ITPAC	Library representative (Chair) Technical representatives from all faculties	To establish, endorse and constantly review Standard Operating Environment for desktop computing To raise awareness of and seek agreement on Service Level requirements for desktop users and to provide a conduit for information on IT purchasing issues (Interim Report (1) 13/1/98).

Teaching and Learning Facilities Advisory Committee

The Teaching and Learning Facilities Advisory Committee (TLFAC) was set up to overcome some of the problems pertaining to the lack of communication between those driving technological change and those driving pedagogical change.

The committee and its working parties brought together staff involved in teaching with technology from across campus, including two key support groups, ITS and CEDIR. It provided an avenue for input from faculty academics who were involved in curriculum development and using technology in their teaching. Table 4.12 identifies the membership and functions of the committee and its working parties.

Table 4.12 Teaching and Learning Facilities Advisory Committee: members and functions		
Committee	Membership source	Functions
Teaching and Learning Facilities Advisory Committee (TLFAC) Sub-committee of the Educational Resources Planning Committee (1997), later a	Director or Deputy Director, CEDIR, Chair Associate Director ITS Timetabling officer Director of Buildings and Grounds Coordinator Audio-Visual Production and Services Academic representatives nominated by the Committee of Deans	<ul style="list-style-type: none"> • Advise on all matters pertaining to Common Teaching Areas (including Web-based and remote centres). • Advise on computer and network infrastructure for support of teaching, learning and research. • Bring together planning of ITS and CEDIR to overcome perceptions that technology

subcommittee of University Education Committee (UEC) reporting to PVC (A) 1997 – ongoing.	Library representative Invited members: Head of Campus, Graham Park Head, South Coast Project (Arts) BBA Coordinator for South Coast Nominee of FEC chairs from other faculties	was driving teaching rather than supporting it. <ul style="list-style-type: none">• Ensure teaching spaces in new centres adhered to same requirements as Wollongong (Minutes of Meeting, May 1997).
TLFAC Working Party Sept - Dec 1998	Educational Developer (Arts) (the researcher), Chair Representatives of ITS, Library, Faculty of Education, Arts, Commerce, Science, Engineering (that is, those involved in South Coast development) Head of Campus, Graham Park	To evaluate and recommend a Learning Management System (WebCT or TopClass) for campus wide support and use (driven by the urgent needs of South Coast), (Lefoe, 1998). Recommended adoption of WebCT.
TLFAC Working Party Oct - Dec 1998	Educational Developer (Commerce), Chair Educational Developer (Arts) (researcher), Head, South Coast Project (Arts) Outreach librarian ITS representative Faculty of Commerce representative	To determine the impact of moving to a single PC computer platform at remote centres and the impact this would have on academic staff currently using Apple Macintosh computers. (Stace, 1998).

The South Coast initiative provided an impetus to change existing practices at the main campus. Whilst this involved a number of power struggles between various groups on campus, it led to some standardisation of technology across campus, for example, Common Teaching Areas and desktop computers. These same standards were implemented later in the new centres (see Table 4.12) (University Of Wollongong, 1997). In 1999, the university adopted a new Learning Management System (WebCT) to support online learning for all students, including the South Coast (see Table 4.12).

For the Faculty of Arts the committee overcame some of the difficulties identified by subject developers as they struggled to come to terms with new teaching technologies. Although a Learning Management System (TopClass) was trialed earlier by some of these developers, there were no processes in place to manage such a system until 1999, when the new system was adopted. As processes and policies were put in place, the subject developers had to develop skills to use the new system after WebCT was chosen. They also had to transfer their subject material from the old system to the new one, or collaborate with others to do this (Lefoe, 1998).

Desktop computers were also an issue as the Arts Faculty used the Apple Macintosh computer platform. ITS had decided that only the PC platform would be available on the South Coast, thereby rendering obsolete some software academic staff had planned to use in subjects and had prepared detailed guidance for in their study guides.

This would mean not only rewriting study guides, but also learning to use new software on a new computer platform in a very short space of time. In addition, the network capabilities for the Faculty of Arts building were tied to the old platform, and would require a complete upgrade of the network for the whole building (Stace, 1998). A TLFAC Working Party 2 recommendation to retain both computer platforms was upheld (Stace, 1998). Some sections of the Faculty of Arts' building network were still upgraded so that those involved in the South Coast initiative could access the new Learning Management System with upgraded computers, retaining the current Apple Macintosh platform.

Educational Delivery Information Team

The Educational Delivery Information Team (EDIT), originally known as the Flexible Delivery Project (Information Management) Team, brought together a number of the people involved in setting up systems for managing information across campus. The group moved from individuals, with a general mistrust of each other through a lack of understanding of each unit's role, to a cross-functional team who were able to share their knowledge and their ability for mutual support. Most importantly, the team developed a plan for information management that crossed the boundaries of the many administrative and academic support units in the university, with the support of Project LEAD coordinator (Curtis, 1998a). The membership and function of this team is summarised in Table 4.13.

Table 4.13 Educational Delivery Information Team: members and functions		
Committee	Membership source	Functions
Flexible Delivery Project (Information management) Team, later renamed Educational Delivery Information Team (EDIT) Jan - Dec 1998	Rotating chair Facilitator: Head of Electronic Publishing Unit, (CEDIR) Educational Developer (Commerce) Library Printery Administrative Information Systems (AIS) Information Technology Systems (ITS) Academic Registrar's Division (ARD) Coordinator, Project LEAD	To identify, map and suggest refinements to systems with the aim of achieving effective and timely provision of quality services and products in a flexible teaching and learning environment (Curtis, 1998a, p18)

The team facilitator reflected on the change process:

The 'revolution of change' for me highlighted the old style of individual decision-making based on insular and limited levels of understanding, as opposed to collaborative and sustainable decision making. The immediate and very positive effects moved very quickly outwards to academic units and beyond to our actual clients, the students, demonstrated by improved structures, services and support. (Curtis, 1998a, Appendix 16, p2)

In 1999, many members of the EDIT team contributed to the planning process of the South Coast Curriculum Committee, where collaboration became an important function to move the initiative forward to the implementation stage.

South Coast Curriculum Committee

The South Coast Curriculum Committee (SCCC), with responsibility for ensuring that quality degree programs were on offer on the South Coast, had three name changes over the development phase, reflecting the changing purpose and functions of the committee, as summarised in Table 4.14. It moved from a committee that reported on actions to one that initiated actions and took greater responsibility for the move forward.

Table 4.14 South Coast Curriculum Committee: members and functions		
Committee	Membership source	Functions
Nowra Curriculum Advisory Board, 1997-1999	PVC (A) Chair Project Director Dean of Arts Dean of Commerce Head of Campus, Graham Park Deans of Informatics, Science, Engineering, Head of Aboriginal Education Centre Head of CEDIR	<ul style="list-style-type: none"> Oversee current offerings at Graham Park including piloting of new modes of delivery. Develop future directions for Nowra programs and infrastructure.
Nowra Curriculum Committee (became SCCC in 1999)	Membership was in transition from those listed in 1 to those listed in 3.	<ul style="list-style-type: none"> Identify areas of cooperation and deal with joint issues such as face-to-face provision, tutor training, and library materials. Principal liaison group with marketing and Uniadvice.
South Coast Curriculum Committee (SCCC), 1999 – 2000	PVC (A) or nominee chair (rotating chair initially then Educational Developer (Arts) as nominee) Head of Campus, Graham Park Project Development Officer Academic Registrar's Division (ARD) Sub-Dean, Commerce Associate Dean of Arts (Undergraduate Studies) Professor, Informatics Project LEAD coordinator Educational Developers, CEDIR (including researcher) Various administrative staff members from involved faculties Uniadvice (marketing) ITS representative	<ul style="list-style-type: none"> Take overall responsibility for coordinating and project managing quality degree programs for the South Coast through timely, appropriate, effective, and efficient action by: <ul style="list-style-type: none"> defining areas of responsibility and authority; improving communication; targeted, timely, and effective action. Function areas included institutional and administrative infrastructure, curriculum responsibility (faculty academics), curriculum infrastructure (CEDIR, Library, ITS), developments and marketing (Uniadvice and faculty representatives) (SCCC minutes, March 20, 1999).

The Nowra Curriculum Advisory Board was involved in determining courses and ratifying subjects on offer at the Graham Park Campus from its first year of operation in 1993. The Head of Campus provided leadership in this area and lobbied the Faculties involved to both improve the quality and increase the number of subjects offered there. Programs or departments were paid \$8,000 per subject. The Head used this financial reward to encourage improvements in subject delivery (Interview, 22/1/00).

In 1999, the planning for the new campus developed momentum, the committee became the Nowra Curriculum Committee and activity increased. The committee's role included identifying the degree programs to implement at the new campus in 2000. This included: the Bachelor of Arts (Communication and Environment); a Bachelor of Commerce and a Bachelor of Business Administration from the Faculty of Commerce; and various first year subjects from the Faculties of Informatics, Science, and Engineering.

The South Coast initiative was widely referred to as the 'Nowra Project' or the 'Nowra Campus'. It was difficult for many people to project beyond Nowra when they were planning modes of delivery, choosing instead the option to believe that they did not have to become familiar with the technology since it was possible to drive to Nowra if necessary. This led to the next name change of the group to the South Coast Curriculum Committee. The name change aimed to encourage people to start thinking beyond Nowra and to include Batemans Bay and Bega in their subject planning. The change also aimed to persuade subject designers to think more flexibly about their subjects and the technology they would need to use to support communication.

In 1999, the final year before implementation, it became obvious to those involved that there was insufficient cross-committee communication about the implementation phase of the project, and eventually the South Coast Curriculum Committee took on the role of bringing the disparate groups together to improve the communication. By this stage, it was usually the nominees attending the meeting and other invited members. This included those involved directly with such things as the development and implementation of the degree programs and the marketing of the new degrees. Both activities were the focus in the second half of the year.

It was difficult to move actions forward at times as those with a commitment to the status quo resisted the inevitable change to processes that were required for the implementation. For some it meant a loss of power or autonomy, for others it meant changing perceptions of what they did and how they did it. The change required people to work in more collaborative ways and to learn to trust people in other parts of the organisation. It meant academic staff working more closely with administrators, technologists and other support staff, outside of their own faculty. It meant developing relationships, creating a shared vision for what the innovation would be like, and creating a pathway that would allow it to happen, a challenge during the initiation stage identified by other researchers (Fullan, 2001b; Senge, 1992).

However, with the support of the Project LEAD coordinator, common goals were identified and people were able to move towards identifying a project implementation plan.

For some groups the move was difficult, for example, with a new, and for the most part, inexperienced marketing group who were used to directing their own activities without interference from the faculties. The Head of Campus, Graham Park was also used to being autonomous and directed the marketing for the South Coast in collaboration with the marketing group. This created some obstacles for the group as a whole to provide direction for new marketing initiatives. For example, a key issue was targeting marketing towards mature-age students. Despite the earlier experience of mature-age enrolments at Graham Park, and the invited research report which indicated that this trend would continue, much of the marketing was targeted at high schools, a common practice for the university marketing team (Illawarra Regional Information Service, 1996). Another issue was that the subject details for some faculties were still not available by mid-1999. Faculties were used to being autonomous and would not be pressured into making decisions about subjects before they were ready, despite the push from the committee members. However, the degree details could not be marketed until the subject information was received.

Eventually the Head of Campus, Graham Park stopped attending the meetings, citing concern that the meetings did not discuss curriculum and were too involved in marketing (Interview, 26/3/00). The faculties made it clear that they determined the curriculum in their degrees and there were processes within the faculties and the university to ensure quality in the processes. Eventually sub-groups were formed to develop and implement a marketing plan, to develop and implement tutor training, and to plan the student orientation.

The Pro-Vice Chancellor (Academic) appointed the Head of Campus as chair of the committee in readiness for the implementation in January 2000. However, he was not committed to the team process and did not convene another meeting of the group (Interview, 26/3/00). By this stage, the other members of the committee had developed good working relationships and continued to implement the plans, working at the individual or group level as required. They had a better understanding of each other's roles and responsibilities in the work groups across the university, and knew whom to contact for support and assistance when they needed it.

Within the faculties, planning and development of subjects was underway. The process for the Faculty of Arts is discussed in the next section.

4.3.4 Faculty structures

4.3.4.1 Background

For the Faculty of Arts the project started during a period of upheaval. The Dean had announced he was stepping down, and was on leave when the Acting Dean formed the Flexible Delivery BA Working Party (FDBAWP) of the Faculty Education Committee (FEC) in November 1996. The faculty was involved in a period of restructuring and there was a great deal of unrest within the programs and between some programs. Faculty economics continued to be problematic with a number of contract staff employed, hoping to gain tenure, and many of the programs 'fighting' for a pool of money that was decreasing annually. It was not a positive environment to introduce another initiative, as major changes were already underway.

Contextual factors influenced the structure of the degree from the beginning. These included:

- Faculty activities directed towards survival in a time of restructuring that meant people were more concerned with their own survival rather than the new initiative.
- Restricted funding for the development of subjects in flexible delivery modes.
- Limited funds for employment of new staff within the faculty.

Before the establishment of the committees for the Faculty of Arts, the Dean had been involved in the institutional planning process through the South Coast Educational Network. Within the faculty, involvement was formalised initially through the establishment of the Flexible Delivery Bachelor of Arts Working Party in 1996, and then through the South Coast Project (Arts) (SCP (A)) in 1998.

The members and the functions of the two groups that were involved in the initiative are identified in Table 4.15. The Faculty Education Committee also played a role in the approval process for the subjects and the SCP (A) reported to this committee, and to the Dean.

Table 4.15 Faculty of Arts committees involved in planning and development		
Committee	Membership source	Function
Flexible Delivery Bachelor of Arts. November, 1996 - April, 1998	Dean/ Acting Dean (Chair) Invited members identified by the Dean including a number of contract staff.	Identify subjects and propose funding needs for a Nowra degree - a BA Liberal Arts Degree, emphasising a cross-disciplinary focus and giving priority to generic skills through: Development of a BA to offer to the students of the Shoalhaven region. Exploration of the development of a BA for transmission by flexible mode. Investigation of the further application of appropriate multimedia technology for the delivery of subjects and courses both on and off the Wollongong campus. (Meeting minutes 5/97).
South Coast Project (Arts) April, 1998 - ongoing	Associate Dean (Undergraduate Studies)/ Head (Chair) Subject developers Educational Developer (Arts) - the researcher Learning Developer (Arts) Project LEAD coordinator Outreach librarian	Bring cohesive degree together and ensure delivery by 2000 of 100-level subjects; by 2001 of 200-level subjects; by 2002 of 300-level subjects.

4.3.4.2 Flexible Delivery Bachelor of Arts Working Party

The purpose of the Flexible Delivery Bachelor of Arts Working Party (FDBAWP) was to determine a cross or multi-disciplinary curriculum for the BA to meet the perceived needs of a student group identified in a regional report (Illawarra Regional Information Service, 1996), commissioned as part of the *Options Study* (Fuller, 1996). The study indicated that the student group would primarily be mature-age students, since the school students surveyed indicated they would prefer to attend a university away from home.

However, the marketing group targeted school leavers initially and as economic needs changed over time this later became a problem. In the first year, a number of post-secondary students enrolled, whose needs were not considered in the curriculum development process.

In addition to achieving the stated objectives of the FDBAWP, there were two underlying unstated strategic objectives. The first was to use the development of new modes of teaching to challenge traditional ways of thinking about curriculum thereby encouraging a move towards more student-centred learning environments. The second was to preserve the jobs of new contract members of staff at a time where funding cuts were beginning to have a huge impact (Curtis et al., 1999).

Curriculum development role

At this early stage, individual lecturers were pursuing their own directions with subject development. The Flexible Delivery Working Party functioned in parallel to these individual staff development activities. In mid-1996, the chair invited the Educational Developer (Arts), who had been working with individuals and small groups, to join the working party. While this linked the two areas of development activity, the group processes were often ineffective for the development of a coherent degree framework. The new multidisciplinary degree structure challenged the traditional faculty structure organised around the content and language of disciplines. It occurred at a time when student numbers were increasing and program heads were trying to gain approval for new staff positions (Curtis et al., 1999).

Some of the academics saw the new degree as a threat rather than an opportunity to improve teaching and learning, and, instead of looking towards the development of the degree, faculty staff tended to focus on continuing debate about unresolvable issues throughout the meetings. In addition, the chair, according to one staff member interviewed:

got himself into a position in which he was the only person who had political knowledge and skills on that committee and a lot was happening. The information wasn't getting through. And he wasn't able to interpret it and put out the pieces that people needed so that they could learn how to do that kind of thing. It got to the point where he didn't know who he could trust either. (Interview, 21/1/00)

Often the meetings achieved little, a common method of avoiding change for many academics (Blau, 1973; Eckel, Hill et al., 1999). Furthermore, within the faculty, there was constant talk of the new degree being second rate with a lot of undermining from those not directly involved. With this level of disquiet, it took almost two years for the faculty to approve a structure of compulsory and elective subjects. However, since the faculty was in a state of disarray at the time, with uncertainty about leadership and direction, it is not surprising that some people were unwilling to commit to another change initiative.

To further complicate matters, the members of the working party held differing views on a definition for flexible delivery, a common concern identified in the literature (Collis, 1998; Nunan, 1996; Taylor et al., 1996; Wade, 1994). Initially the group used the University Enterprise Bargaining definition. However, it was not meaningful to many of the members:

An approach to the delivery of education which allows duration and intensity, pace, method and delivery medium to reflect the learning objectives, the needs of the student, the subject and course requirements and the judgements of the teacher (University of Wollongong, 1996a, p7).

Eventually the South Coast group used the following definition for flexible delivery:

An approach to teaching and learning which increases access to education for a wide range of students by offering greater student control over time, place and, potentially, pace of study. Technology, where appropriate, is utilised to support communication and access to information and to move towards a more student-centred approach to teaching and learning. The most appropriate delivery medium, (for example, a lecture, a video or a book), can be chosen to meet the learning outcome and the student's needs. Interaction, (learner-learner and teacher-learner) can be facilitated through face-to-face contact or through supporting technology such as videoconference, Internet, phone, fax (Bell & Lefoe, 1998, p72).

Marketing documents for the South Coast degree later incorporated this definition for students (South Coast Education Network: Career and Future Navigator, p7).

A memorandum from the PVC (A) in April 1997 reminded faculties that the flat rate funding they had been receiving for teaching at Graham Park Campus (\$8,000 per subject) would end in 2000 and that planning should be underway to incorporate the subjects in the faculty budget and planning. It also contained a reminder that the project funded one full-time staff position in the Arts Faculty to support this project. It further identified the importance of flexible delivery of the subjects and asked for an indication of the phasing out of previous subjects (earlier ones on offer at the Graham Park Campus), and the introduction and development of new ones (Memo, PVC (A) 10/4/97). The memo intended to pressure the faculties to identify subjects and to start the planning and development phase of the project. It was also a timely reminder that the faculty budget, through the funding of staff members, was already supplemented, despite little concrete evidence of progress.

Across the institution, many people referred to the South Coast degree as the 'Nowra' degree. It was not until the NCWP changed its name that many realised the impact of the access centres' needs on the mode of delivery. Many subject developers focussed only on Nowra and they knew it was close enough to drive to for tutorials, as was the current practice for the interim campus at Graham Park. Some did not consider the imperative to develop subjects using flexible teaching methods suitable for the access centres in Batemans Bay and Bega until after the establishment of the SCP(A). The FDBA committee finalised the subjects to be included in April 1998.

Professional development role

With the chair's encouragement, an active sub-committee of the group moved forward with staff development plans. They produced a one-page flyer that highlighted current innovative teaching practices within the faculty, the nature of flexible delivery and places to access resources. They followed this by organising a symposium that provided opportunity for interested staff members to focus on teaching and learning. Staff development workshops were then made available for academic staff to develop their understanding of possibilities available in flexible modes, specifically with appropriate technologies. Practical workshops provided an overview of alternate modes of delivery and some skill development.

The potential subject developers still had limited understanding of the actions they needed to take. Nor did they have a vision of what the South Coast meant either to the faculty or to the university in terms of economic growth. They questioned the nature and availability of students, the available technology, and the suitability of the delivery methods. They made no move to take the project forward to subject development. A climate of goodwill is necessary to move a project forward and where there is a climate of mistrust it can lead to a faculty who are “paralysed by endless debates and arguments, slowdown tactics, disengagement and sometimes outright sabotage” (Eckel, Hill et al., 1999, p9). At the program and faculty level, it was hardly surprising people had little energy to direct towards a new initiative, which was seen as an additional burden for the faculty.

The Working Party was a prime candidate for support from the Project LEAD initiative identified earlier. However, when the Project LEAD coordinator attended a meeting with the group, there was a level of distrust evident amongst them, and initially she worked with individuals from the group, including the subject developer who later became Head.

4.3.4.3 The impact of Project LEAD

Project LEAD was a staff development program based on action-learning methods. Its purpose was to support people through the change process with a focus on “facilitation of more effective action in designing, developing, producing and delivering flexible learning environments” (Curtis, 1998b, p1). The project supported a number of teams or work groups including those developing curriculum for the Bachelor of Arts (Community and Environment) in the Faculty of Arts. The Project LEAD report described the challenge in the faculty at the time:

Instability in the faculty means that group relations and commitment to the project itself are always fragile. ... If one theme emerges from the conversations, it is the general unwillingness to take responsibility for the project. (Curtis, 1998b, Appendix 4)

The Project LEAD coordinator, the Educational Developer (Arts), and a key subject developer (who later became the Head of the project), collaborated to convene a one-day workshop for the subject developers to identify and address the key issues to move the project forward. In attendance at the workshop were the current Dean (just before departure), and a small number of subject developers. The Pro-Vice Chancellor (Academic) (PVC (A)) was to attend after the discussion of issues.

The Educational Developer (Arts) and Project LEAD coordinator managed the process of listing the concerns and issues identified on large sheets of paper that were displayed around the room. After this session, the PVC (A) arrived. She began to address the meeting in a way that the researcher had heard her before, again stressing the importance of the initiative to the university in terms of growth funds. Most of the attendees had heard at least some of this argument before, but not necessarily first-hand.

As she talked her gaze wandered around the room reading the issues identified earlier. Her prepared talk faltered and stopped entirely as she read issues identified by the people at the grass roots level. To her credit, she stopped her talk and started to discuss the issues that people had identified and their concerns for the project, moving the group towards actions that would allow the project to happen. By valuing the contributions of the people, and acknowledging their work, she achieved their support for the initiative (Fullan, 2001b; Winter & Sarros, 2002).

This was the first step in developing a relationship with the people at the grass roots level who were grappling with basic issues. There was a two-way flow of information: the academics could finally understand what the PVC (A)'s vision for the project was and she began to realise the practicalities of what needed to be done from their perspective. By *naming* the issues, the stakeholders were able to reconceptualise the initiative in a way that allowed them to engage with it. This process was identified by Taylor (1999b):

It is through naming that practices come to be recognised, to become specific objects of thought, and open to the possibility of change - either changing them to make them more tolerable, or changing the way they are thought about so that tolerating them becomes a possibility. (p87)

The discussion that followed the PVC (A)'s talk, and the processes put in place that afternoon indicated a shared understanding of the challenges ahead, an important step in the change process (Senge, 1992). The PVC (A) acknowledged the work of the subject developers and provided the leadership they needed to engage with the project. It was clear that not all the issues could be resolved immediately, but actions were in place to start addressing them. It was the first step in bringing the development team together and provided the motivation for curriculum development to begin.

Following the workshop the Educational Developer (Arts) and the Project LEAD coordinator categorised the list of issues and actions identified by the group to plan the development process. Although the actions underwent some change as the process and direction became clearer, it provided a good starting point for the group.

As the development process continued, the developers did not formally discuss the list of issues again in their meeting times, though it provided the momentum for much of their work. It seemed to be enough that the Pro-Vice Chancellor (Academic) heard the members and that the issues were identified, with the realisation that many questions simply had no answers at that stage, and that many needed to be dealt with in other committees or groups. The Project LEAD Coordinator, the Head of SCP(A) and the Educational Developer (Arts) ensured that items were placed on the agenda of the appropriate committee or workgroup, or were addressed by the faculty committee as part of the planning process.

4.3.4.4 Head of South Coast Project (Arts)

Following this meeting, the Pro-Vice Chancellor (Academic) and the Dean organised for the key subject developer to be appointed Head of the project on April 29, 1998. This meant the provision of leadership and a champion who came from within the faculty. The Dean dissolved the Working Party and initiated a new team, South Coast Project (Arts) (SCP(A)), comprised of academics interested in developing South Coast subjects. The Head became the chair of the SCP(A) and the focus moved from just talking about the subjects in the degree to include planning of the whole degree and the relationships between the individual subjects and their development process. The Head reported directly to the Dean, whilst still providing updates to the FEC on progress made.

The appointment of the Head to the position occurred because of her leadership skills and because of her understanding of what was required to achieve the goal. She described herself in a reflective paper about her role:

It was important that the Head of the South Coast Project (Arts) be a person with a strong vision of both the degree itself and the process for achieving success. I was already modelling the objectives of the project in my teaching practice: an emphasis on tertiary literacies (the current university terminology for generic skills), a willingness to try innovative methods of teaching and learning, a commitment to a student-centred curriculum, experience in interdisciplinary teaching and research, and strong team work capabilities. (Albury, 2001, p25)

The move helped to justify the project in the faculty. It not only had a Head of Program, but also had part-time administrative staff allocated and a space to meet, which included filing cabinets and cupboards for storage of materials. This acknowledgement encouraged the subject developers to take responsibility for the task, despite the lack of answers to many of the questions they had raised. It provided impetus for the group to move from resistance to action.

4.3.4.5 South Coast Project (Arts)

The staff development focus moved at this stage from a faculty-wide focus to this group of subject developers, a very committed group with a number of new academics, many of whom were inexperienced in the area of subject development. For this reason they were enthusiastic about trialing new methods and taking risks in their teaching. It also caused some difficulties for them within their programs as some members of their programs felt program loyalty should come first, and that they were crossing the boundaries of some discipline areas through the development of interdisciplinary subjects (Interview, 22/1/00).

The new Head developed a plan for this group to move forward, working closely with the Project LEAD coordinator, the Educational Developer (Arts), the Learning Developer (Arts) and the Tertiary Literacy Officer. This involved addressing a number of the issues including an allocation of resources, support for subject development, professional development and curriculum development.

The university appointed a new Dean and she joined the faculty on July 13, 1998. Her support for the project was obvious from the start when she made it a priority to travel with the Educational Developer (Arts) to the Graham Park Campus in the first few weeks. She used this time to question the subject development process and to identify some of the issues, whilst offering her ongoing support for the South Coast Project (Arts). She continued to provide this support by attending planning workshops and supporting individual academics in the career development process, but also by publicly acknowledging the work involved in various faculty forums.

Resource allocation

The new Head negotiated with the PVC (A) to access funds for the project. Previously subject developers had applied to the PVC (A) with a proposal for individual subjects. The Head streamlined the procedure, with funds allocated to support subject development processes. Funds could be sought to buy out staff from teaching, or to provide a research assistant for the subject and some funds for each subject were allocated to the Centre for Educational Development and Interactive Resources (CEDIR) for development work. There was approximately \$15,000 per subject, with \$5,000 to \$7,000 allocated for development of resources. This also became a contentious issue for three reasons.

Firstly, many departments objected to what they regarded as the casualisation of their teaching program, insisting that quality teaching came from the permanent staff. Given that many of the academic staff involved were innovative teachers, this was a real dilemma for programs, one identified elsewhere in the literature (Anderson et al., 2002; Coaldrake & Stedman, 1999). Secondly, some programs also perceived the project as taking academics away from research. This was an important issue for programs and therefore perceived as not the best use of time, especially for the relatively inexperienced staff involved. Some heads maintained they should be developing their research profile in order to successfully apply for tenure, a strategy which they felt, under the current system, was more likely to be successful than with a teaching profile (McInnis, 2000). Finally, the allocation of funds to CEDIR for subject development was contentious because most academic staff were used to autonomous subject development. This required them to work with the Educational Developer (Arts) and other CEDIR staff such as desktop publishers, programmers and graphic artists, and risked them losing ownership of their subjects, an issue also identified by Taylor (1999b).

Two issues underpinned the funding decision by the PVC (A). The first was a quality issue. Since the material would provide a public display of University of Wollongong subjects, and as Wollongong was not a distance education provider, there were concerns that development may be ad hoc and possibly of a poor standard. The second issue was to encourage professional development for those involved in curriculum design, with an aim to improve teaching and learning on campus as well.

However, the politics at the time and the fact that CEDIR was a relatively new centre meant that some academic staff treated CEDIR suspiciously. Therefore, the Educational Developer (Arts) and others involved spent considerable time developing a level of trust with subject developers. This was something that needed further development between members of different disciplines within the group, and so became a strong focus for all activity.

Development support structures

As the resource allocation shows, the subject developers were supported in the subject development process, but making links with the various units was problematic for those staff who were used to autonomy. The inclusion of representatives of each of the support units in the SCP(A) development group was central to their input into the subject design. The degree support structure in the University of Wollongong included:

- CEDIR (included Project LEAD coordinator, Educational Developer (Arts), Interactive Multimedia Unit, Audio Visual Unit and Electronic Publishing).
- Student Services (included Tertiary Literacies Officer and Learning Developer).
- The Library (included Outreach Librarian).

The support staff worked with the SCP(A) group during workshops and planning meetings, and with individual academics on their subjects. In many cases, they developed ongoing professional relationships with the support staff and have continued to work with them on subject development.

Professional development role

During the original development phase, the Educational Developer (Arts) provided support to individual lecturers who were trialing the use of various technologies for flexible teaching and learning. The Educational Developer (Arts) and the Coordinator of Project LEAD worked initially with the newly appointed Head of the South Coast Project (Arts) to plan the initiating activities that could create more coherent and effective action to develop an integrated degree.

The Coordinator of Project LEAD was able to involve key decision makers in sharing information and linking the input of the many interest groups involved.

The ratification of the degree by the Faculty Education Committee in April 1998 cleared the way for subject development to start. However, this degree required a team approach to subject development rather than the usual individualistic approach because of its multidisciplinary nature. The university had identified the 'Attributes of a Wollongong Graduate', as key outcomes for its graduates, part of its quality improvement process (University of Wollongong, 1992, 1994a). In order to develop the degree as a coherent whole, a number of developers began to discuss the attributes of an Arts graduate. This involved the integration of tertiary literacies within the curriculum (Milne, 1998). By May, the group had agreed on a list of specific transferable skills or attributes of an Arts graduate, which included "discrimination in the sense of being able to make judgements, skills in argument, criticising, analysing, thinking and knowing" (Report to FEC, April 1999).

In July 1998, the South Coast Project began a series of guided, reflective workshops, which facilitated the start of constructing a conceptual framework and language for the development of an interdisciplinary degree. These workshops provided an iterative process in which subject developers raised the issues involved with the development processes for the degree.

Curriculum development role

For the degree to be coherent, the subject developers were asked to think about their subject in relation to:

- the anticipated student profile;
- the level of prior knowledge and skills that these students would bring to the subject;
- the transferable skills that needed to be embedded in their subject;
- the links between their subject and other subjects in the degree so that skills; and understandings were developed coherently and in an integrated way. (Curtis et al, 1999, p4)

Through this process, the developers were able extend their subject planning so that students would build their skills throughout the degree (Milne, 1998).

The subject developers used the framework they had generated as a resource for the next critical step in the development process. They worked with the combined support of the Educational Developer (Arts), the Project LEAD Coordinator, and the Tertiary Literacies Officer to develop the themes and skills within the degree. In addition, the Dean's support was important to the work of the South Coast subject developers by linking this process to the broader goals of the University of Wollongong, and later to the faculty's strategic plan.

Two further workshops in November 1998 and March 1999 refined the categories, sequenced skills by the degree of sophistication expected at each level in the degree, developed a list of learning activities and assessment tasks, and tested the identified skills against their subject materials. Despite changes to the group and different attendance patterns, people built solidly on the work of those who had attended the previous workshops.

The Head of the South Coast Project described the degree structure:

The BA (Community and Environment) is an interdisciplinary degree constructed of two new subjects and subjects selected from existing offerings in the faculty. It is related to the faculty's mission to provide 'interdisciplinary and disciplinary teaching that is innovative, high quality, flexible and student-centred'. It increases the access to higher education for people living at a distance from existing Universities. The degree has been constructed to produce graduates with 'a capacity for rigorous and disciplined analysis and to have highly developed attitudes of critical inquiry, creative reflection and openness to cultural difference and diversity'. It contributes to the employability of graduates with a significant concentration on familiarity with electronic information retrieval, skills in research and report writing, and the transfer of analytic skills from one context to another. (Report to FEC, April, 1999)

The subject development continued with relationship-building as fundamental to this process throughout. As the new campus and access centres were nearing completion, a trip to the Shoalhaven Campus was organised by the South Coast Curriculum Committee, to encourage information sharing between the faculties involved. The committee also wanted to provide concrete evidence that the building of the facility was underway to expedite the development process. Although there was little representation from other faculties, several of the Faculty of Arts group made the trip that provided tangible evidence that the building of the new campus was underway.

Irregular meetings of the group continued throughout the year as required. The subject developers worked on curriculum design with various support staff and piloted subjects and teaching strategies with their on-campus students. They interacted with the services provided by the support units to ensure first semester subjects were ready for 2000, and other subjects were under development for their prospective implementation year.

4.3.5 Discussion

The university put structures in place for planning, developing and supporting the initiative. The structures were established to ensure that planning was in place for new processes on campus, which would be used in the South Coast development. The complex committee structures meant that communication among the groups became a challenge and the university management recognised the problem by initiating Project LEAD. The coordinator of this project assisted groups to identify the actions required to achieve the goal of establishing the new centres whilst overcoming the resistance to change experienced by those who would implement the changes.

The literature on change in higher education supports the major issues identified as challenges. These included a need for:

- improved communication across different committees and workgroups (Senge, 1992; Taylor, 1999b);
- methods for disseminating information to all staff (Fullan, 2001a; 2001b);
- consultation with academic staff in the decision-making process (Argyris & Schön, 1996; Goleman, 2000; Senge, 1992); and
- supporting staff through the change process (Coaldrake & Stedman, 1999; Scott, 1999; Taylor, 1999b).

The Faculty of Arts also established structures to develop and implement the new degree, The Bachelor of Arts (Community and Environment). There was initial resistance to the degree from some members of the academic staff, evidenced by the delay in establishing a structure to the degree. The appointment of a Head for the South Coast Project (Arts), accompanied by support from the Project LEAD coordinator and the new Dean, provided opportunity to address issues identified by the members of the planning group and allowed the group to move forward, supported by the leadership they provided.

The provision of leadership is an essential component identified in the literature on change to gain support from within the faculty (Fullan, 2001a; Ramsden, 1998; Senge, 1992; Taylor, 1999b). Resources were allocated to the project, support was provided for professional development and curriculum development and this enabled the degree planning process to proceed. The relationships developed through the South Coast Project (Arts) group supported individuals through the difficult process of changing their conceptions of teaching and learning, an essential factor identified by other researchers for designing the subjects to meet the needs of students in a distributed learning context (Biggs, 1999; Collis, 1998; Dede et al., 2002).

4.4 Summary

This chapter has developed an understanding of the context of change within the university and the complexity of the planning process for the establishment of a satellite campus and access centres. The project was initiated in 1992 and the planning process continued until 2000 when the new campus and access centres were opened. The planning process involved a number of groups and individuals across the university, working within other change agendas that influenced the initiation of change. In addition, the facility development required working with the external stakeholders involved in the new campus and access centres.

The factors that supported the process for the South Coast initiation included:

- The external change agent and others who took on the change agent role, such as the Project LEAD coordinator and the Associate Dean of Arts in her role as Head.
- New ways of working across groups in the institution such as the inclusion of the representatives of the support units in the South Coast Project (Arts) team.
- Team building and leadership within the committee structures.
- Participation and consultation in the decision-making processes.
- Staff development and support roles.
- Allocation of resources.

By 2000, the South Coast Project (Arts) group were ready to proceed with implementation of the subjects in the new degree. Chapter Four has described the context for the initiation of change in the University of Wollongong, and within the Faculty of Arts. The focus of Chapters Five and Six is on the implementation of the first year of the innovation.

Chapter 5

The implementation process: perceptions of the first year

5.1 Introduction

This chapter describes the implementation of the first year of a new degree, the Bachelor of Arts (Community and Environment), through a description of the elements of the subjects. It then reviews the perceptions of the stakeholders to identify how they experienced the program. The final section discusses these perceptions and summarises the stakeholders' experiences of teaching and learning in the first year, specifically within a distributed learning context.

5.2 Relevance to the study

Broadly, this study aims to identify the characteristics that could constitute guiding principles and strategies for a supportive context for distributed learning. The first research question, which is addressed in this chapter, was concerned with the perceptions of teaching and learning in a distributed learning context and prompted further sub-questions related to the degree and the subjects within it:

- What was the nature of the degree?
- How were the subjects designed for the distributed learning context?
- How was content provided?
- What learning resources were available to support students?
- What learning processes were required for students to engage with the subjects?
- What methods were used for subject delivery?
- What processes were in place for skill development?
- How were students assessed?
- What feedback mechanisms were in place?
- What was the nature of the subjects?
- How did the students, tutors and subject coordinators describe the experience?

5.3 Method

Subject-specific surveys were conducted in Session 1 of two core subjects, Subject A and Subject B, collaboratively designed by the researcher and the subject coordinators. In Session 2, the researcher and the subject coordinators surveyed students in Subject C and Subject D, both elective subjects within the degree. A qualitative approach was used to examine the results of subject surveys in conjunction with the interview and focus group data, to triangulate the data, since the sample was too small to statistically analyse the results for significance.

5.4 Course offerings in 2000

In 2000, after a great deal of planning and preparation, the first year of the new degree became a reality. The initial group of students for the new Bachelor of Arts (Community and Environment) were enrolled at the Bega Education Access Centre, The Batemans Bay Library and Education Access Centre and, because the Shoalhaven Campus buildings were not ready for occupation, at the Graham Park Campus.

The students discussed their reasons for pursuing study on the South Coast in the focus groups. One student stated, "I'm established... so I couldn't leave" and another said, "[My reason for studying here] was financial" (Focus group, 3/8/00). Another announced, "I had the shadow of a two-thirds finished degree ", whilst another stated, "[I] wanted to study when I left year 12, and I did study for a while, and got a couple of certificates and then had babies" (Focus group, 1/6/00).

There were some second year Arts subjects on offer at Shoalhaven Campus during the transition to the new degree program. However, there was a level of confusion amongst these students, some of whom were unaware that they could continue at the Shoalhaven Campus, so had enrolled at the Wollongong Campus, though some completed subjects at Shoalhaven, including some of the new first year subjects.

Full-time students were to undertake eight subjects in their first year. Five compulsory subjects were on offer from the Faculty of Arts as well as two elective subjects from within the degree. A further elective choice could be made from the Faculty of Commerce subjects. Each subject was worth six credit points and therefore required 10-12 hours per week of the students' time, including attendance at face-to-face tutorials.

5.5 Bachelor of Arts (Community and Environment)

The Bachelor of Arts (Community and Environment) was a new degree program developed specifically for the South Coast. The program was designed to be flexible in terms of time and place, and to use a student-centred approach to learning to assist students to take responsibility for their own learning (Faculty of Arts, 2000).

The program was designed to use a distributed learning context for teaching and learning; that is, the combination of reduced face-to-face teaching with both synchronous and asynchronous interaction often mediated by technology to produce an environment for learning which is student-centred. This approach results in the teaching and learning activities being dispersed across a number of settings, including the centres, the library, the main campus, and the student's home; across time; and through a variety of technologies, including print, videoconference, and online tools (Dede et al., 2002; Salzberg & Polyson, 1995; University of British Columbia, 1995).

The next section provides an overview of the seven subjects available in the first year of the degree, and then examines four of the subjects in detail.

5.7.2 Description of the degree

This particular degree was different from those on offer on campus since it was a new degree developed specifically for students on the South Coast, it was flexibly delivered, and it was interdisciplinary in nature. The degree sat outside the program structure of the faculty, unlike interdisciplinary majors such as Australian Studies and Gender Studies, which sat within the History and Politics Program and the English Program respectively.

5.6.4.4 Interdisciplinarity

Interdisciplinarity is identified in the literature as a response to the explosion of knowledge, fragmented curricula, increased understanding of pedagogy, and the need for students to integrate and make connections with the world outside university (Davis, 1995; Ivanitskaya, Clark, Montgomery, & Primeau, 2002; Klein, 1990). For the Faculty of Arts a coherent degree would allow students to make connections among disciplinary knowledge, the language of the disciplines, and methods used across disciplines.

The degree was designed to provide an integration of content and skills, connections among the disciplines, and development of higher order skills such as synthesis and integration, thereby blurring the boundaries of disciplines (Ratcliff, 1997). For the Faculty of Arts the new degree was a major change in direction.

5.6.4.4 Flexible learning

For the University of Wollongong, the planning documents for the South Coast initiative had indicated that flexible teaching methods would be used for the degree (University of Wollongong, 1995, p3). The Faculty of Arts highlighted the flexible nature of the degree as an important aspect for South Coast students. In the *Undergraduate Handbook*, this was described as “flexible delivery mode” (p15).

Whilst individual subject developers within the faculty used flexible modes of delivery for their subjects, this was the only area where, through the degree design, all subjects in the major would incorporate a flexible approach to learning.

For many of the subject developers this was the first time they had designed subjects with a student-centred approach to teaching and learning, and where the students and the tutors would be located at other centres. They were aware that in the first year of implementation some adjustments to the subjects would be required to meet the needs of students.

Throughout the development process the subject developers expressed concern about the use of information and communication technologies in the subject design in terms of the reliability of the network, the time required to learn new skills, and their suitability to support teaching and learning. They wanted to ensure that pedagogy was the central driver of subject design not technology. The inclusion of assessable tasks that used technology for communication were limited in the first year as a result of this concern.

5.6.4.4 Perceptions of flexible learning

For the students there was a mixed understanding of flexible learning. One student commented, “To me it sort of reminds me of a step down between going to university and doing correspondence. It’s a lot like half-way, it’s just right” (Focus group, 30/5/00). Another student imagined “it would be either like a mix between distance education and actually having to be here, which would give people like me a bit more flexibility” (Focus group, 3/8/00).

Another commented that the flexible mode meant, “That you could go home and do as much as you wanted of that course”. Another student commented that “[going home and doing as much as you wanted] actually never happened, so it wasn’t flexible at all” (Focus group, 30/5/00).

The students’ views on the flexible nature of the degree varied, from “very flexible” to “not flexible at all”. One student commented, “I thought [the subjects] were really flexible” (Focus group, 3/8/00). However, another stated: “I was probably imagining more flexible and more use of internet and computer stuff than what it’s actually turned out to be” (Focus group, 1/6/00). Another declared that the subjects were not flexible since they were timetabled at certain times (Focus group, 30/5/00). Others indicated that they were not aware what flexible learning was and had not noticed this was an aspect of the degree (Focus group, 3/8/00).

One of the tutors expressed concern on the impact of flexible learning that “I think a lot of them [the students] saw the work that they had to do independently, because it was in flexible delivery mode, as extra work.” (Interview, 6/9/00). This was supported by a student comment “but I really didn’t expect the workload to be as heavy as what it is for four subjects. I sort of thought, gee four subjects, two nights a week, this will be a breeze” (Focus group, 30/5/00). This indicated that some students were either not aware of the nature of university work or that students may have considered flexible learning was a ‘soft option’, that it would be easier than a traditional degree.

5.7.3 Subject design

The South Coast Project (Arts) group of subject developers collaboratively developed the framework for the new degree, moving from a focus on content only to a focus that incorporated sequential skills and attitudes development, and looked at course outcomes in terms of transferable skills for achieving graduate attributes (Associate Dean, 22/1/00).

Many of the individual subject developers worked collaboratively with support staff such as the Educational Developer (Arts), Learning Developer (Arts), and the Tertiary Literacies Officer to design the subjects for students at the remote sites. (Curtis et al., 1999). They determined the student characteristics as related to those of adult learners, assuming a majority of motivated, mature-age students.

This was based on earlier reports and the experience of their colleagues at the interim Graham Park Campus in earlier years that indicated that this would be the student cohort (Fuller, 1996; Illawarra Regional Information Service, 1996). The core first year subjects were designed to provide a base to introduce students to the skills, knowledge, and attitudes they would require in future subjects.

5.7.4 Content provision

A student-centred approach to teaching and learning was reflected in the subject workbooks developed for all five of the core subjects, Subject A, Subject B, Subject E, Subject F, and Subject G.

Each of these workbooks provided tasks for students to complete between face-to-face meetings, as well as guidance for tutorial activities. Additional readings were included in separate readers or prescribed textbooks. All subjects had local tutors to support them and the face-to-face hours with students varied across subjects, with some meeting weekly for three hours and others meeting fortnightly for two hours.

There were two elective subjects, Subject C and Subject D. Subject D provided most of the lecture notes through a website and as the semester progressed, provided some amateur video recordings of some of the lectures from Wollongong. The tutorial for Subject D was held using videoconferencing, and the only full-time lecturer based at the Shoalhaven Campus provided tutorial support for the subject. She travelled to the other centres and the two hour videoconference was managed from whichever centre she was visiting that week. Subject C provided the content information mostly through lecture notes with three interactive lectures available within WebCT through the subject website. The tutorials had prescribed assessment tasks to be completed each fortnight.

5.7.5 Learning resources

Resources were provided for students on the South Coast through the library or through access to the university website. In Batemans Bay, the library was onsite and the centre coordinator had worked in the library before employment with the Centre. In Bega, the library was several streets away from the Centre and still used a card catalogue system. Limited funding meant limited access to new technology for the library, and meant the staff skill-base was limited in using such things as online databases. The Shoalhaven Campus had its own library with two staff members who assisted both the TAFE and university students.

Resources for subjects were available for loan from the Shoalhaven Campus Library and from the local community libraries in Batemans Bay and Bega. These included two copies of any textbooks required for subjects, which were held in closed reserve, as well as any of the books and journal articles in the reading list for the subject. Students were also able to order additional library books and journal articles from the main campus library to be delivered through a document delivery service.

This initially involved the student handing the completed request to the local librarian responsible for the university collection, who forwarded the request to the central library. This was amended in Session 2 to allow students at the two access centres to fax the requests directly to the library in Wollongong, in order to improve the service.

Resources were also available online through the university website and the Library was gradually increasing the availability of electronic database and journal access. There was an introductory training program on using databases available on the library website for students as well as a compulsory, zero credit point subject, Information Literacy Introductory Program (ILIP), to introduce students to the basic skills required to use the library.

Whilst some students indicated that they had computer access at home, each of the centres had been set up to ensure that access was available for all students. Students were provided with free access to the Internet and were allocated a download limit. The Bega and Batemans Bay centres had 24-hour access to a lab of computers, which required pin number access. The Shoalhaven campus had computer labs within the centre, usually open until the final tutorial of each day. The Access centre was situated within the library building and was still not available for 24-hour access by the end of the year, due to concerns expressed by the Manager, Shoalhaven Campus about safety of the students and the equipment.

5.7.6 Teaching and learning

Aspects of the teaching and learning program that influenced student learning varied between subjects. Whilst the content was prescribed for all subjects by the subject developers located in Wollongong, the local subject tutors often made decisions about the teaching strategies used to support learning, which could be problematic for inexperienced tutors. Some of the subjects, such as Subject C, clearly stated the activities and teaching strategies for each practical class. Others such as Subjects A, B and E, provided tasks to be addressed in tutorials with some suggestions as to teaching strategies.

In some cases, the students could pursue the activities on their own if all tasks were not completed during the tutorial time, as suggested, for example in the Subject B workbook.

Some subjects used a teacher-centred model that kept the content separate in traditional lecture/tutorial format (Subjects C, D and F), whilst others combined the content of the subject with the activities of the tutorial to help students make the links between theory and practice.

5.7.7 Roles and responsibilities

There was no formal documentation to describe the roles of the subject coordinator, the tutor or the student at the University of Wollongong.

5.6.4.4 The subject coordinators

At the Wollongong Campus the subject coordinator is frequently the lecturer for the subject and may also tutor in the subject. The responsibility a subject coordinator takes varies between subjects and may include administration of the subject such as posting final results, designing the subject (including identifying assessment tasks and marking criteria), holding marking meetings with tutors and ensuring that similar marking standards are maintained across tutorial groups.

The subject coordinators' beliefs about their role were related to the norms of the faculty and the time they felt they were able to allocate to the South Coast role, in relation to their workload on campus. The subject coordinators who had developed the subjects took more responsibility for the subjects and for communication with the tutors and students, although one subject developer indicated he felt that provided there were no problems the tutors would take the responsibility for the subject. He commented, "actually my input was much stronger on the level of the design and working out of the thing, but most of it I did in the semester before it ran". Another remarked, "I was just administrating it".

One coordinator, who developed the subject and taught it on campus at the same time stated: "to support the staff down there properly was extremely difficult", citing workload as the key issue. This coordinator also presented an interesting perspective of the students and tutors.

A comment made by the subject coordinator during a South Coast Project (Arts) meeting expressed a concern that the different student profile at the centres compared to Wollongong meant that the final assignment may be too hard for South Coast students. The coordinator suggested that they required an easier task since the students were having difficulty with some of the concepts (5/4/00). The coordinator may have expressed the opinion to the tutors since the tutor at Centre 2 commented:

knowing how they felt about [the students] too, that they are all dummies, it made it hard. They kept saying, well you guys can do an alternate final assessment. So you lose some grey matter the further south you come down the coast. (Interview, 7/9/00)

The changes to the final assessment did not occur for equity reasons, and because it would breach the Code of Practice for Assessment at the university. The final student results, marked by the subject coordinator, indicated that the group at Centre 2 had achieved the highest grades in this subject across all centres, including Wollongong. The tutor stated: "I just wish [the coordinator] had seen their work earlier, to be reassured that they were not as hopeless as she had assumed that they would be" (Interview, 5/4/00).

5.6.4.4 The tutors

The tutor's role on the South Coast was usually to manage the tutorial activity and for most subjects to mark assessment tasks. Tutors were not required to provide lectures to the students. The Arts tutors were paid at the maximum hourly rate that included time for preparation, marking and student consultation. They were the first point of contact for students about any issues with the subject, although the subject outlines indicated that students should contact the coordinator if they had any questions about the content (for example, Subject outline, Subject B p4; Subject A p3). Demonstrators were employed for Subject C to complete the practical component. For Subject D, the lecturer based at the Shoalhaven Campus provided tutorial support for all subjects, but lectures were provided through amateur videotapes recorded during the lectures in Wollongong.

Many of the tutors had attended tutor-training workshops provided by the university prior to appointment and again just before the start of session. During the first few weeks, they indicated that their perceptions of their own role changed as they realised their views were different to the reality and that they became the 'face of the university' for the students, summarised in Table 5.1.

Table 5.1 The role of tutors	
Expectations	I talked a lot with [other tutors]. ... Well, it was sort of survival on my part. I just didn't quite know [what to do] (Interview, 31/5/00).
	If we spoonfeed them they miss out on an important part of their education - taking responsibility for their learning. (Interview, 31/5/00).
	My role - I'm not 100% clear what would be expected on campus. We've developed the role in our particular way. We've extended our initial expectations of what the role entails through our own desire to improve things and for students to solve problems (Interview, 2/11/00).
	My role...that's right. the stresses ... I just think that down here it is so important because the students don't have face-to-face with the lecturers and they don't have doors to go and knock on. You are a teacher as well, you're not just facilitating discussion, you sometimes have to provide like a mini-lecture almost (Interview, 26/10/00).
Workload	Oh, I think feeling that I'm getting myself on top of it ... I suppose keeping up to date with the lecture materials that are on the web, and being abreast of that, and trying to keep pace with some of the students that have - were reading you know, were much further ahead than others (Interview, 31/5/00).
Range	The role of the tutors on the South Coast has a wider range than just tutoring. Tutors are the local face for UOW. They combine mini-lecturing with tutorial facilitation, as well as mentoring. Tutors are an integral part of flexible delivery and can make the difference between conventional distance education methodologies and UOW's program of taking tertiary education to the community (Centre Coordinator, personal communication).

The tutors frequently supported each other in the role, but one centre in particular developed a strong support community. Various tutors at Centre 1 described their relationships in the face-to-face environment, and the level of trust that was developing:

I went through finding my own feet in it. I didn't quite know what was expected and I was thinking 'Oh, this is because I actually haven't done an arts degree – I've done a science degree' and so I talked a lot with (tutor), and (tutor).

The tutors supported each other with assessment marking strategies:

So it was really left up to the tutors. I ended up, just because I really wanted to do the right thing by the students and I wasn't sure whether I was being too harsh or too generous, I spoke to a tutor from the first session who looked over some of the work. We talked about what marks she would have given them.

One tutor also described the support they needed to get started:

Just, for staff development ..., with our training we didn't actually look at what we do on that first day. I mean, I worked it out by talking to other tutors and sort of did myself a plan.

As they developed relationships within the centre, they were able to develop their understanding and ability as teachers. The ties with the other centres were not as strong however:

We really haven't had a lot of contact, actually. I'd rung both other tutors, but they've not rung me. (Tutor) rang me back after I rang her, but they haven't really been pro-active. I tried to get a WebCT thing happening and they couldn't really join in through circumstance. I really think it needs to be a closer team between the tutors and between all of the students.

One tutor did work with a tutor from another centre:

I spoke to another...the tutor from (other centre) for the same subject and she read a couple of the essays to compare them with her students so that was a bit of process which I had to work out...we had to work out ourselves, there wasn't any sort of centralised comparative exercise going on.

Ties between the tutors at the centre and some of the subject coordinators were not very strong either. One tutor, when talking about the relationship with the lecturer, stated:

A relationship where, if something was more solid in a relationship, say if it was you, I'd already kind of developed a friendship with you that I could have just said 'look I'm a bit lost. I don't know what's required here'.

Another tutor commented:

Not very regular contact – at the beginning we were sending email and we had a couple of phone conversations just to talk about the first tute and what he would like covered in that first tute, but I mean, my main contact with (name) has been just reading his responses to students on the bulletin board.

The tutors realised that other issues affected those in Wollongong and were relieved that they were far enough away not to be involved:

There's a fabulous 'little community' feel in that place – that feels great. And, you know, we'd even comment about how busy and stressed that all seemed up there [in Wollongong], whereas while we were busy and a different kind of stress, it wasn't that pressure stress, that 'unsettling' locally. So in a way we felt, yes, there are a few loose ends, but to me it felt like we've got a much better atmosphere here, we feel like the privileged ones from my perspective.

The supportive nature of the staff in the centre meant a strong commitment by the tutors to the success of the centre.

5.6.4.4 The students

The students battled with their new role and responsibilities from the outset, and many faced the challenge of balancing their understanding of what they thought it entailed to be a university student with the reality of being a student in this distributed learning context. Students' expectations of their roles differed, with some indicating they had no idea of what the role entailed: "Some of us like we've never been to university before so we don't know what to expect or what we're missing out on" (Focus group, 12/3/01).

Others had a view that it involved attending lectures and tutorials, identified by one of the tutors who suggested that roles and responsibilities needed to be clarified for the students from the start.

In addition, the students indicated that they did not understand the roles and responsibilities of others in the institution. Students at the centres often interchanged the terms 'tutor' and 'lecturer' in the focus group discussion, and many were unaware of the roles of the Dean, Sub-Dean and Associate Dean within the faculty. Students may have been overwhelmed by the information they received at orientation about roles and expectations.

A faculty handbook, *Studying on the South Coast*, was produced to overcome some of these initial student problems, but students indicated they did not read it. It identified student and staff roles in this learning environment providing information about: accessing administration, subjects online, the library, introductory support for essay writing, using word processors and the coursework system. However, there was an expectation that they read the booklet, just as there is an expectation that students read subject outlines. The reality is that students often only read the information they require at the time.

Many students found their new role challenging in the initial months. One had difficulty balancing her new role as a student with other roles in her life: “Well, I’m unhappy, I don’t have a life. I don’t go for a walk any more, I don’t speak to my children. ... I’m not going to put in my 100% at uni because I can’t any more”. (Focus group, 30/5/00). Another commented on the challenge of learning the language of the discipline: “So I forced myself to continue on and eventually my brain sort of went ‘yep, you can think of these words’”. (Focus group, 1/6/00). One student appreciated the new role in terms of recognition from her peers: “I found it really good, I showed [my essay] to one of my friends and I was quite proud of myself because she said ‘Did you write that?’ and I said, ‘Yes’ and she said, ‘Really?’ and I said, ‘Yep’” (Focus group, 1/6/00).

5.7.8 Subject delivery methods

The core subjects in the Arts degree were not designed to use traditional lecture delivery methods for transmitting information to students. They used a student-centred approach requiring students to take responsibility for learning the content through either reading material themselves, watching a video or engaging in activities during the tutorial and then making their own connections with the concepts discussed or presented in the tutorials or practicals. Students were required to prepare for the tutorials in some subjects by reading the lecture notes or content modules before attending the tutorial, for example Subjects A and D, so that they could participate in the tutorial activities and discussions.

5.6.4.4 Video and audio

Two subjects provided amateur video or audio recordings of lectures during the semester. In the first subject, Subject D, the lectures were recorded on video and these were sent to each centre for student loan or observation in the centres. The original subject design provided for these lectures to be presented via videoconference but a lack of communication and the newness of staff members meant that the room had not been booked for this purpose and was unavailable when the lectures were scheduled on campus. The amateur video recordings were augmented by lecture notes, which were provided on the subject website.

The second subject, Subject F, in response to student feedback during the session, provided audiotapes of the lectures from Wollongong to supplement the lecture notes provided on the website. The tutor played these during an optional lunchtime meeting. He recorded the key points on overheads for the students and discussed the concepts involved, though only two or three students attended each week.

5.6.4.4 Learning Management System

The University of Wollongong uses the Learning Management System WebCT for online components of subjects, and some South Coast developers incorporated this in their subjects. Students were automatically added for subjects in which they were enrolled.

The subject developers used the system in different ways, some for content only and some for communication as well. In order to access the system the students and the tutors were required to establish their university email account, which used the same login name and password. A discussion space was set up for communication among the different centres and the Wollongong-based subject coordinator in Subjects A, B, D and G though the tutor at Centre 1 initiated the establishment of the Subject A discussion space.

5.6.4.4 Contact

All students at University of Wollongong were required to access their email account, which was provided free of charge. All subject outlines provided students with the email address and contact phone number of the subject coordinator in Wollongong. In addition, many of the tutors allowed students to contact them through their personal email address or private phone numbers.

5.6.4.4 Skill development

Some skill development was provided for students during orientation and through the compulsory Information Literacy Introductory Program. This introductory program required students to use their email account, as well as providing opportunity to develop skills in using the online library catalogue. In addition, the Head produced a handbook to support students with computer skills and provided contact points to support them. There was one support person for computers based at the Shoalhaven campus, who occasionally visited the other centres and was available to assist students. The Centre Coordinators and other students also provided a great deal of support for computer-based skill development.

The university provided academic support to students through the centrally-based Learning Development Centre which had self-access materials online, as well as a lecturer who visited the centres to provide individual and workshop assistance with such things as essay writing. In Semester 2, additional Learning Development support was provided at the Shoalhaven campus for two hours per week by the tutor from Subject E.

5.6.4.4 Assessment

Assessment tasks were spread throughout each semester with exams held for two of the core subjects, Subject E and F. Some subjects required assessable tasks to be completed each week or fortnight (Subject C and D) whilst others such as Subject B had three assessment tasks over the semester. Most subjects included either an essay or report.

For most subjects the tutors were responsible for marking and providing feedback to the students on their assessable work. They were not required to send any student work to Wollongong for comparative marking. One subject required the final examination to be assessed by the subject coordinator (Subject E).

Technology was used by some subjects in assessment tasks, in particular some subjects required tasks to be word-processed (Subject A), and others required students to post comments in the discussion space of the website as part of their participation in the subject (Subject G). Some student presentations required videoconferencing to the other centres (Subject D).

5.6.4.4 Feedback

Since the local tutors marked most of the assessment tasks, they provided the majority of feedback on student presentations and their written work. Written feedback was usually provided to students when assessment tasks were returned during tutorials. Tutors were available before or after tutorials for further feedback, but were usually not available at the centres outside of this time, since they were only employed for two or three hours per week or for Subject C, three hours per fortnight. The exceptions to this were the Subject D lecturer who was based at the Shoalhaven Campus, and the Subject F tutor who was the Professional Officer, four days per week, at the Shoalhaven Campus.

5.6 Perceptions of the subjects

The following descriptions of the subjects have been developed through analysis of the subject outline documents. The perceptions of the stakeholders are presented through analysis of the interviews with the tutors and the subject coordinator, the student focus groups and the subject surveys.

5.7.9 Subject A

The interdisciplinary Subject A is one of five core (compulsory) subjects in the degree. It explored notions of what it means to be Australian through analysing the areas of home, paid workplace, the environment and national space by examining how gender, ethnicity, class and citizenship affect their experience (Subject Outline, Subject A, p5).

The content was delivered substantially through a workbook that contained six topics divided into lecture material, tutorial questions, and exercises. This was supported through readings and a weekly face-to-face tutorial, in each of the centres. There was occasional videoconferencing between the two access centres and an online discussion component within a WebCT environment.

The subject outline specified that students would need to allocate eight hours per week, including a face-to-face tutorial of two hours, in order to meet these requirements. There were three assessment tasks in the subject. Task 1 included six exercises spread across the semester worth 60%, task 2 was a 1200 word essay worth 30% and task 3 was for participation worth 10%. Guidelines for the exercise component identified that it was not as rigorous as the essay component and was to be written in the spaces in the workbook or word-processed. There was no word limit identified. Clear assessment criteria for the formal essay were identified in the subject outline (p11).

The academic who developed this subject was on study leave during the first year of implementation. Usually in the Faculty of Arts, a subject was not offered if the person who developed it was on leave. The design of the Arts degree meant that subjects had to be offered in the sequence indicated because of the small number of subjects available and the compulsory nature of many of the subjects.

The following sections describe the stakeholders' perceptions of the subject.

5.6.4.4 The subject coordinator's perceptions

The subject coordinator was the Head of Department. He had little input into the subject design, since he had been on leave the previous year. He commented that he was just administrating this subject, which he felt was experimental and somewhere between distance education and traditional on-campus education. He did view the subject content positively, but indicated that the perspective was very much that of the subject developer's. He stated, "I was in contact with the tutors and I was in contact with some of the students and there was a couple of problems" (Interview, 6/9/00). He travelled to the closest centre in the first week for the tutorial, as the tutor was overseas for a family emergency. This set the scene for how the subject was taught through the semester. He regretted that he was unable to visit the other centres as his workload on campus increased when a staff member became ill.

5.6.4.4 The tutors' perceptions

The subject was taught locally through face-to-face tutorials held each week. The tutors were required to facilitate the discussion and exercises on alternate weeks as identified in the handbook. For example, in the first week of a topic, a video was shown followed by tutorial questions, and in the second week the tutor facilitated discussion with the students about their responses to the related exercise. The tutors also provided feedback to students on their participation in tutorials and marked all of their assignments. The tutors at Centre 1 and 2 had attended a tutor induction and training session in Wollongong where they had briefly met the subject coordinator. They had also attended a tutor-training course in Batemans Bay before notification that they would be tutoring the subject. The tutor at Centre 3 had lectured and tutored in several history subjects at the Graham Park Campus and knew the subject coordinator and other program members. She did not meet the other tutors and was unable to attend the training.

The tutors viewed the content and subject organisation favourably. One tutor stated that, "putting the content together like that so the students read it was good - they liked it and did the readings each week" (Interview, 5/9/00). Another also made positive comments, but commented on the difficulties of students completing the preparation each week (Interview, 31/5/00).

During the session there were two videoconferences held between two of the centres, organised by the tutors. In the first week, a guest lecturer was invited to present to the students but was unavailable at late notice, however the tutor at Centre 1 was able to replace this with a locally recorded video of a visitor to the town, and this resource was shared via videoconference with Centre 2. Later in the session, one tutor was unable to locate the video resource required for the lecture, so Centres 1 and 2 connected again to share the resource. However, one tutor indicated she would like to encourage more interaction between the students but the tutors did not feel confident with the technology, “if thinking about the technology wasn't an issue then you could think more about the dynamics of what's going on” (Interview, 31/5/00).

The same tutors used an online discussion component within WebCT. One of the tutors used it to replace a tutorial when she was interstate. The tutorial questions were posted on the website and the students discussed the issues, asynchronously, over a two-week period and the tutor and students at the other centre participated in the discussion.

In Subject A, the major assessment task, comprising one exercise per fortnight over twelve weeks (worth 60%), was a key factor in the way the subject was taught in the different centres. Although the subject had been designed to build students' skills throughout the semester, this was very dependent on how the tutors implemented the process and the teaching strategies they used. The tutor at Centre 1 for example, used the major assessment task to build the students' skills throughout the semester leading up to the essay task. She stated, “early on I covered note-taking and then I covered how you read a lot of material...and it's really only in the last couple of weeks I've got on to referencing. I didn't quite know what was expected” (Interview, 31/5/00).

The tutor at Centre 2 expected the students to have these skills, requiring essay standard responses each fortnight and marking assignments accordingly from the beginning. She commented that she was used to working in TAFE without support and so, “You're used to the fact that nobody's going to help you so you do it yourself” (Interview, 1/11/00). In the focus group, a student at this centre described the subject in terms of heavy workload, unrealistic expectations, and fear of failure. The tutor commented on her own workload, “keeping up with the marking I suppose was fairly difficult because I was marking every week” (Interview, 1/11/00).

The tutor at Centre 3 indicated that the students were not well prepared for the final essay task, and thought there should have been another essay required earlier in the semester, an indication that essay-writing skills were not developed through the semester:

They were writing every week, just a short answer but this was a different type of writing and many of them believed they could write like that in the essay. No abbreviations, no slang, no headings was a shock to them. Good essay writing and arguments and analysis - they couldn't do it the first time they'd come to it.
(Interview, 5/9/00)

The tutors addressed the task in three different ways and there appeared to be no discussion between the coordinator and the centres about the task nor was there any comparative marking across the centres. At Centre 3, the tutor was unable to start in the first week because of a family crisis, and so the subject coordinator provided tutorial support and provided his interpretation of the task for the students. He explained that each fortnight for the first assessment task, the students were required to make informal notes about the prescribed topics in the area in the workbook and come prepared to discuss their comments. They were to refine their notes by the next tutorial to submit for marking.

The tutor at Centre 3 felt that the students were unprepared for the final task, indicating that she thought the earlier task had not taught the students about analytical writing. The tutorial plan in the handbook indicated that essay-writing skills was the topic for discussion the week before the essay was due. At Centres 1 and 2 the tutors indicated that they felt the students were well prepared for the final task, with one of them pointing to the lecture notes as a good model for their essay.

The tutors at Centres 1 and 2 viewed student preparation for the tutorials differently to the tutor at Centre 3, indicating that the content was well prepared and readable and consequently the students read it. However, the tutor at Centre 1 indicated that the students did not come prepared for the tutorial: "It was one of many pressures. They knew it was their responsibility, they just didn't get it done". One of these tutors visited Wollongong during the session and met with the coordinator, but still found it difficult to ask him about the content, feeling instead that she needed to discuss it with the subject developer who was on leave. She explained that the lack of relationship with the subject coordinator made this difficult. Both of the other tutors indicated they were used to working without feedback.

There were issues in communicating with the subject coordinator, which inhibited relationship-building. This resulted in different expectations for the major assessment task at the centres and a serious workload issue for one group of students and one of the tutors. Although the subject outcomes identified skill development as a key component of the subject, only one tutor explicitly developed student skills through the major assessment task, and another did this through feedback on six essays she required the students to complete for the first assessment task. The tutors' contract finished before the final assessment task was returned to the students, indicating that it may be necessary to require the final task before the last week or to extend the tutors' contract to allow for time extensions and feedback. Technology was used as an adjunct to the subject to resolve particular problems when required, though the tutors did not feel confident in using it.

5.6.4.4 The students' perceptions

5.6.1.3.1 Focus groups

Students were asked general questions about the Arts degree related to flexibility, and use of educational technology, and to comment specifically about the challenges of and responses to subjects. They commented positively about Subject A in all centres, especially the way the workbook was organised.

The group at Centre 3 indicated a concern with the number of questions to be answered each fortnight in the major assessment exercises and the criteria by which the major assessment task was marked. One student quoted a statement from the tutor, "I can't believe we're covering this much in such little time, it normally takes 2 years to teach all of this and we're doing it in 10 weeks." Another student felt the tutor seemed, "quite confused". One student, who had started university straight from high school, felt there was little in the subject she did not already know whilst another stated, "It really opened my mind up."

At Centre 2, the group discussed the major assessment task and the workload that it entailed at length. This group did not feel rewarded for the work they undertook and felt the tutor's expectations of well researched and referenced 2000 word essays were extreme, and the low marks they received for the time involved did not reflect the amount of work it required. Their comments:

Student 1: I found them a bit overwhelming in the quality of work that was required.
You didn't get very well rewarded for your work.

Student 2: I will second that.

Student 3: Me too. Thousands of words and I think the expectation in the handbook it should have just been filling in the answers. But were actually word-processing the whole thing and it was expected that it would be fully referenced throughout the text and at the end, and so it was like doing a major essay every time...you need a couple of days to do it.

Student 2: That was my biggest stress around in the middle there, on top of everything else, every fortnight you were having to produce this two thousand word thesis on some topic.

This same group discussed a visit to a local Aboriginal cultural centre, which the tutor had organised, and one student commented, "It really made everything come alive".

The students at Centre 1 enjoyed the subject and their only concern was about the videoconferencing:

They were trying to use it for combining group discussions so someone from this end, and someone from that end would combine. But it was very difficult, a few of the people who were in that combined group, felt like your whole discussion was broadcast to everyone, and if you were not in the television group, the sound of that dominated everything, and made it very difficult. ... Given that, I wouldn't rule it out as a medium, just develop it.

5.6.1.3.2 Survey

The Subject A survey (Appendix 5.1) had a response of 17 out of the possible 27 students, with a response rate of 62.96%. Results are given as percentages of the sample number (n=17) of students from the three centres. All students responded to all statements in the survey, which used a Likert scale, though not all responded to the open-ended questions. The percentages of students who strongly agreed or agreed are indicated in brackets in the following comments.

In the survey most students responded positively to statements about the content, teaching methods and resources:

- clarity of aims and objectives (65%, with slightly agree =6%);
- consistency of content with subject outline (88%);
- organization of content (88%);
- relationship between elements (65%, with slightly agree =23%);

- teaching methods (65%, with slightly agree =12%);
- usefulness of handouts (71%, with slightly agree =18%);
- adequate library resources (71%, with slightly agree =29%); and
- computer resources (76%).

Whilst students indicated that tutorials enhanced their learning (65%, with slightly agree =23%), they were not as positive about their use in clarifying the lecture material (59%, with slightly agree =23%), or that the time and effort spent was worthwhile (59%, with slightly agree =23%). They did not support as strongly the statement that the teaching methods took into account the differences amongst students (53%, with slightly agree =18%). The respondents indicated that whilst instructions for assessment were clear and specific (88%) and assessments were an important part of the learning experience (71%), the feedback given could have been more constructive (53%, with slightly agree =29%). Some students did indicate concerns about the appropriate use of technology (59%, but strongly agree =0%), and skills development to use educational technology (35% with slightly agree =23%). The usefulness of email contact with staff (41%) and students (17.6%) was more problematic, with 23% and 35% indicating this did not apply in the respective statements.

The open-ended questions sought comments on the strengths and weaknesses of the subject and ways to improve delivery, and provided for further comments. There were fourteen comments on the strengths of the subject. There were nine comments about the topics, content and layout indicating that the subject was well written, relevant, comprehensive, clear, interesting, and “a good learning experience”. Two respondents commented on “well-spaced assessment tasks” which “worked well”. Two enjoyed the tutorial discussions, “Points were clearly explained and discussion and input from other students was helpful.” One student summed up the subject, “Beautifully designed subject - moved us slowly from less complicated work to work where more was expected of us”.

There were fourteen comments on ways to improve the delivery of the subject. Four suggested the essay should be due earlier and two suggested more practical components such as site visits. Two students identified increased interaction in tutorials as being required to improve their learning. Two wanted more audiovisual components and one wanted lectures or videos of lectures from Wollongong. Another lengthy comment indicated that the workload was onerous, and that there was a lack of relationship between topics.

The student encapsulated this: “In a way, the information was regurgitated, but not entirely synthesised or understood: there wasn't the luxury of time to enable this integral process to occur.” The same respondent commented on the added burden of learning to use technology while developing essay-writing skills, which added many hours to completing the tasks. The student also mentioned, “My fellow students in the class felt isolated from the University of Wollongong, and they thought that an introductory session at the main campus would be really beneficial for them, to feel like 'real' students and to get to know their lecturers”. There was a further criticism of workload and one on integrating the presentations through the course rather than all on one day.

Four of the ten comments on the least valuable aspects of the subject identified the workload, and its impact on student learning, as an issue. Two students specified that the final essay should have been due before the last week of semester. One indicated that more time was required and another commented that it was too late in the day. One thought the content was too basic. One felt the speeches [presentation assessment task] were too long and another stated, “It was all great”. One student expressed dissatisfaction about the teaching method used in tutorials:

The tutor assumed we knew more than we actually did, and seemed frustrated at our need for further analysis and explanations: at times she was very discouraging of different ideas and opinions. There was too much emphasis on strict academic credibility in our words, discussions and ideas, and this led to a fair amount of resentment amongst the students. Motivation dropped amongst us as the tutorials progressed.

The same student was also concerned about the ‘tough’ marking, indicating that this person felt “discouraged and resentful”, and wanted work re-marked. In the further comments section there were another two comments on workload and four on positive aspects of the course: “I loved this subject as it was a source of information to me that enlightened my own knowledge, and led me to develop new ideas and insights of the Australian social conditions: past and present.” The same student felt the subject needed some “fine tuning and a better understanding of the needs of students.” There was also a lone student who “Didn't really like the tutor, she didn't really give me much to look forward to in the tutorial”.

5.6.4.4 Summary

A summary of perceptions of the stakeholders is provided in Table 5.2.

Table 5.2 Subject A: Summary of perceptions of stakeholders		
	Stakeholder	Perceptions
Subject design	Students	Well designed, relationship between objectives and content clear.
	Tutors	Varied across centres, with one who thought skills were not developed well through assessment tasks and the final task too late in session.
	Coordinator	Positive, but no ownership.
Content provision	Students	Material well developed.
	Tutors	Difficulties discussing with coordinator.
	Coordinator	Lack of ownership.
Learning resources	Students	Sufficient library and computer resources.
	Tutors	No concerns expressed.
	Coordinator	No concerns expressed.
Learning	Students	Difficulties with assessment task and discussions.
	Tutors	Developing academic argument as opposed to personal opinion.
	Coordinator	No concerns expressed.
Delivery methods	Students	Tutorials well received by most, but did not allow sufficiently for differences among students. Need for increased interaction.
	Tutors	Setting expectations for students, preparation for tutorials, using academic argument.
	Coordinator	Little faith in technology for relationship building Little contact with students.

Table 5.2 Subject A: Summary of perceptions of stakeholders		
	Stakeholder	Perceptions
Skill development	Students	Learning computer skills whilst developing essay writing skills a challenge.
	Tutors	Incorporated in tutorials.
	Coordinator	Expected to be within tutor's role.
Assessment	Students	Time and effort involved in task was not reflected in results. Workload onerous. More transparent procedures for marking assessment tasks.
	Tutors	Workload, related to unclear criteria and lack of communication.
	Coordinator	Concern about a 'hard marker' at one centre. No communication about tasks across centres.
Feedback	Students	More constructive feedback required.
	Tutors	Workload issue.
	Coordinator	Expected to be within tutors' role.
Roles and responsibilities	Students	Lack of preparation for one tutorial group.
	Tutors	Unsure of role. Moved from tutor to teacher.
	Coordinator	Administration only. Impact of workload on campus.
Relationships	Students	Wanted communication with coordinator. Concern about poor relationship with tutor. Varied across centres.
	Tutors	Wanted improved communication with coordinator. Worked with other tutor.
	Coordinator	No relationship with students or two tutors.

5.6.4.4 Discussion

The subject provided degrees of flexibility for the students in terms of location and reduced face-to-face contact time, replaced by student-centred learning activities in a study guide. For the subject coordinator there was also flexibility in terms of location, and the modular workbook meant no time allocation for lectures. As the subject developer had spent considerable time developing the study guide over the previous two years, the subject coordinator considered he was just administering the subject. However, a lack of time and a lack of ownership by the subject coordinator meant he made no contact with the students, after conducting the first tutorial at Centre 3. He had little contact with the tutors, allowing a serious issue with a major assessment task to go unchecked for most of the semester.

The two most significant factors that supported the implementation of the subject included:

- The subject design and content provision.
- Provision and access to resources.

The major inhibitors identified included:

- Interpretation of the assessment tasks.
- Skills development, including use of educational technology.
- Communication, including feedback.
- Identifying roles and responsibilities.
- Better relationships with subject coordinator.

The subject design and content provision

The subject design was perceived in a positive light by the subject coordinator, the tutors and the students. The six modules provided the content, the tutorial questions and exercises. The content was well organised and stated clearly the requirements for the students. The students commented positively about the subject design in the focus groups and in the related survey questions, but indicated concerns about some of the teaching methods.

Provision and access to resources

Students, tutors and the subject coordinator indicated that provision and access to resources for the subject, such as library books and computer resources, were adequate for their needs.

Assessment strategies

The tutors' disparate views of the assessment task did not become obvious until late in the semester, a reflection that communication on the activity between the tutors and the subject coordinator may have been problematic. Better communication and a comparative marking scheme across the centres may have assisted to identify the situation earlier. The final assessment task was due on the day of the last tutorial and this could be improved through an earlier due date and return of the task on the final day so that feedback could be provided to students.

Skills development

In terms of skill development, developing critical analysis and essay-writing skills were vital components of the subject. The first assessment task provided opportunity for these skills to develop over the semester as they did in Centre 1. However, the tutors needed some specific strategies to implement this, perhaps through better coordination and improved communication with the subject coordinator or provided as clear guidelines in the student workbook.

Technology literacy skills were also key to completing the assessment tasks, as students were required to word-process their work, especially the final essay. For some mature-age students this was problematic as many indicated that they had not used computers before. Computer skills were not taught explicitly in any of the subjects, leaving students to develop them on their own as required, placing an additional burden on their workload.

Whilst survey results indicated that only 41% of students found email contact with teaching staff useful, this result may be affected by their skill in using email, their access to it or the perceived necessity to use it. Likewise, use of email contact with other students may reflect that students did not need to use it when they saw each other regularly, or they may have been limited by inadequate skill or access.

Ensuring that students develop these skills through their integration in the subject, and through a requirement of early email contact with tutors and the subject coordinator may improve communication. This may assist in overcoming other communication problems with the subject coordinator such as the student who wanted work remarked, but lacked the confidence to approach the tutor about the problem, or was concerned about repercussions.

Communication, including feedback

The subject coordinator had little contact with the centres, stating that he “just administered” the subject. This was the norm for the subject coordinator’s role in a traditional on-campus subject, where the lectures were provided by another person, but affected the way the subject was implemented on the South Coast. The tutors’ role expanded from tutoring to taking total responsibility for the subject at their centre and led to different expectations of what was required of the students in the subject. The subject coordinator was not included in the feedback loop to students, and he neither saw the assessment tasks nor had opportunity to comment on them. The result was a lack of coordination which demonstrated that the nature of coordination is different in a distributed learning context.

Roles and responsibilities

For this new learning context, the roles of tutor and subject coordinator were not clear. Although the subject developer may have had an understanding of what the subject required, the coordinator did not and viewed his role as purely administrative. The tutors, new to their role, were not clear about their responsibilities either, nor the standards required of students, making it difficult for them to set clear expectations for their students. Clear role definitions for tutors and subject coordinators may ensure that sessional tutors do not take on more responsibility than their role requires.

Relationships

From the discussion, a key element in this learning environment is the effectiveness of good relationships between the students, the tutors, and the subject coordinator. A team approach where the tutors and the coordinator regularly discussed the subject would have benefited this group enormously in the first year and possibly prevented many of the problems that arose. For this to occur, whether supported through face-to-face meetings or mediated by technology, there needs to be a workload allocation for the subject coordinator and for the tutors.

The power of tutors in relationships in the small centres was also a cause for concern. Students may have concerns about the effect on their relationship with a tutor if they seek remarking of an assignment. This same difficulty is encountered where there may be a personality clash between the student and a tutor. In this context with low student numbers it is not possible for students to change tutorial classes. For this reason it is important that the students see the subject coordinator as approachable, and develop a relationship with the coordinator where they can discuss their concerns.

In conclusion, the students, tutors and subject coordinators perceived the subject as well designed and organised. However, implementation problems occurred when the subject developer did not coordinate the subject. The lack of coordination resulted in different teaching and learning strategies in each centre and affected the major assessment task. For some students this meant a significant increase in workload and for others poor skill development.

5.7.10 Subject B

Subject B was a core subject in the Bachelor of Arts (Community and Environment). The subject outline was a comprehensive 39-page document with a further 17 pages of appendices. The outline included the standard required information such as subject details, contacts, weekly program, resource list, and assessment tasks. It also included information about teaching and learning methods, identified the role of active learning, and stated what the requirements were for students to complete the subject. These included studying the readings, completing the activities at home if not completed during the tutorial, and participating in “activities and discussions as the most effective way to learn” (Subject B outline, p15).

The subject outline provided students with comprehensive information about the content and organization of the subject and support material for completing the assigned tasks. There was some redundant information in the subject outline as well as some incorrect information, indicating the outline had not been updated when relevant information was available.

An activities workbook provided content material and weekly activities for the students to complete in the tutorials, under the guidance of the tutors, with a recommendation that they be completed in a cooperative way to assist learning. There was a website set up by the coordinator for the subject which provided a weekly overview and a glossary of terms for the students and access to a discussion space which was used infrequently by the students.

5.6.4.4 The subject coordinator's perceptions

The subject coordinator, who had also developed the subject, highlighted two principles in his approach to the design of the subject that he thought were important. The first was that students develop an understanding of the language of the subject through writing down definitions and discussing them. The second was that they actively engage in their learning through participation, not through the transmission of knowledge.

He had had previous experience preparing subjects for the Open University and used this model for the subject. When he designed the subject he was uncertain that tutors would be available, or that the technology would be reliable. He designed the subject so that students could work through the material on their own if necessary, or if tutors were available, they could either work through or adapt the material, depending on their knowledge and understanding of the subject.

Workload was an issue for the subject coordinator, who had become Head of his program, and he indicated that most of his contribution to the subject occurred in the design stage. He had some contact with tutors through occasional email and phone calls and held one videoconference with the students, after prompting from the Educational Developer (Arts). He felt it was desirable to have more contact with the students, but indicated, "the circumstances were such that as long as there were no disasters, I could do other things" (Interview, 11/10/00).

He also expressed an opinion about the tutors' role:

unless a project like this has really high powered support (in terms of money and resources and value placed on it, like the institution or management at a high level) then when it's remote, and when you've done the work, design work, it's almost inevitable I believe that other people carry the can. (Interview, 11/10/00)

Whilst money had been allocated for the design stage, he felt that, "the reworking of it, the kind of checking through of it for the second time before it went to the print, and the subsequent alterations that we're talking about now are not being supported in any way" (Interview, 11/10/00).

For this academic, issues of workload and lack of institutional support in terms of funding meant that he regarded the South Coast as a low priority. Whilst he had ownership of the design of the course and a commitment to student-centred learning, he saw the tutors as responsible for the implementation of the subject.

5.6.4.4 The tutors' perceptions

The subject was taught locally through three-hour face-to-face tutorials each week. During this time the tutors were required to facilitate the activities identified in the workbook during the tutorials and to provide feedback for the student presentations. They also marked all of the student assignments. The subject guide specified the teaching and learning activities for each tutorial and the students were expected to complete unfinished activities in their own time. All of the tutors had attended the preliminary training before the centres had opened and had attended the tutor training in Wollongong. One of the tutors had had two years' experience at the Graham Park Campus and at the Wollongong Campus, where she had guest-lectured. She had also prepared a module for one of the second year subjects.

The tutor at Centre 2 found the subject demanding in terms of the readings and the language used:

It's very challenging really, meeting all the postmodern terminology. We were all really floundering in the first weeks. It was so long and so dense we couldn't make head or tail of it. The secondary readings were too complex and dense. I'd get them [the students] to pre-read the tutorial then say don't read that reading.
(Interview, 7/9/00)

This tutor addressed the problem by asking the students, "to read some of it out loud - they'd never heard the words pronounced out loud before. Each week there was a different concept like genre, discourse," (Interview, 7/9/00). Concerning the activities, she stated: "Some were really fun like the cartoon example, genre of film and so on. The TV section was fairly light compared to the Australian literature which was quite tortured" (Interview, 7/9/00). She did express concern at the isolation she felt from Wollongong and the late arrival of the student resources for the subject.

The tutor at Centre 1 also indicated that the terminology was challenging, and that pronunciation of the words used was difficult at times, since she had studied at a distance herself and consequently had not heard some of the terminology in the spoken form before. She also noted a lack of student preparation for class because the students had difficulties with the readings, and when she discussed this with the coordinator, he suggested that they read them after the activity-based class session, though the tutor felt this meant that students did not read them at all.

The tutor was concerned about the students' academic skills and felt they needed to be developed more within the subject. She suggested, "just getting them to do first drafts, essay plans... they literally should be structured into the course. Say you've got an essay due in one month - your tutor needs to see your first draft at this date" (Interview, 30/5/00). She also expressed concern about marking standards for the assessment tasks and when she pressed the coordinator "he said just err on the side of leniency" (Interview, 30/5/00). She did this but was concerned that she was marking too high for one student whom she perceived as very bright compared to the rest of the small group.

The tutor at Centre 3 was experienced with the content area, as she had taught in similar subjects on the Wollongong campus. She also found the subject difficult to teach, but for different reasons. She felt that she was constantly "bridging the gap" between the content and the students' life experiences, so they could make the link between the theory and practice. She also indicated that the readings were too difficult for the students and many of them did not read them. She stated, "I ended up giving a type of mini lecture for the subject - it is not required and not what I'm paid for, but the students were often not doing the pre-reading - they weren't prepared" (Interview, 23/8/00).

Although the subject coordinator indicated in his interview that he expected the tutors to use and adapt the activities from the workbook, this expectation was not clear to the tutors who indicated they would like a less prescriptive workbook. The more experienced tutor at Centre 3 adapted the prescribed activities to suit the needs of the students but both of the other tutors spent their time trying to complete all of the activities.

They also felt that communication with the coordinator only occurred when they initiated it, and whilst one tutor sent email questions and phoned him, the others did little of this, though they received copies of his responses. The tutor at Centre 3 commented, "The support was almost non-existent", and though they finally had a videoconference, she would have liked a phone call or email, just to see how things were going.

The tutors identified a number of problems within the subject, including the complexity of the language and the readings, the prescriptive nature of the workbook and the lack of interaction with the coordinator and other tutors.

5.6.4.4 The students' perceptions

The students at Centre 1 discussed the subject coordinator, whilst engaged in another activity with the researcher. They had had no contact with him at this stage, close to the end of the session, and talked about him as a 'mythical person', and questioned his existence. They could not understand why he did not respond in the discussion space for the subject. They said that when they read his words in the workbook, they "couldn't hear him and they couldn't see him".

The researcher, in her role as Educational Developer (Arts), met with the subject coordinator in Wollongong to discuss this conversation and he agreed to hold a videoconference with all the students, not to lecture them but just to talk to them and discuss any issues before the final assessment task. The students and the tutors responded very positively to this experience.

5.6.2.3.1 Focus groups

There was little discussion in the focus groups about the subject, and when the subject was mentioned the students at all centres spoke positively about it. The students at Centre 3 felt the content was good and liked the book of readings, though one student had bought all the texts before realising the book of readings was available for purchase. Students at two centres suggested that the language was difficult but they used the glossary provided in the website to assist with it. The third group indicated that they enjoyed the subject but did not offer any further details.

All students felt the three-hour time allocation for the discussion was needed to understand the subject and one student summed up the experience: "We went well, from assessment through to finals and we got the feedback."

5.6.2.3.2 Survey

The survey had a response of 19 out of the possible 29 students, with a response rate of 65.5% (Appendix 5.2). All students responded to all statements in the survey, though not all responded to the open-ended questions. The percentages of students who strongly agreed or agreed are specified in brackets in the following comments.

In the survey most students responded positively to statements about the content, teaching methods, workload, assessment, and feedback:

- clarity of aims and objectives (74%);
- consistency of content with subject outline (88%);

- organization of content (89%);
- teaching methods (84%);
- fairness of workload (79%);
- instructions for assessment (89%);
- assessment relevance for learning (89%); and
- feedback (89%).

Students were less supportive of the relationships among elements (63%, with slightly agree =26%) and appropriate use of lecture notes (68%, with slightly agree =0%).

All students agreed that they were encouraged to take responsibility for their own learning (100%) and many agreed that the subject allowed for differences amongst students (68%, with slightly agree =10%) and that they were actively engaged in their learning (68%, with slightly agree =26%). They also felt that the tutorials clarified the lecture material (68%, with slightly agree =16%) and enhanced their learning (74%, with slightly agree =16%).

Of concern to a number of students was the appropriateness of the content for their level of understanding. Whilst 53% agreed or strongly agreed, there were 32% who disagreed at some level. Appropriate use of the website was also a concern with only 21% who agreed or strongly agreed, whilst 42% thought it was not applicable. Access to library resources was also considered a problem (42%, with slightly agree =32%).

The open-ended questions sought comments on the strengths and weaknesses of the subject, ways to improve delivery and provided for any further comments. In the open-ended question on the strengths of the subject, students described the subject as challenging, interesting, insightful, and complicated but good. Seven of the 13 comments focussed on the positive nature of the subject, while four responses indicated that the discussions were a strength and two found the readings were very beneficial.

Among the least valuable aspects of the subject, 4 of the 8 comments indicated difficulties with the readings, with two identifying a lack of focus in tutorials as a problem.

In the 11 responses to the possible improvements question, five students felt that less complex and technical use of language would be useful and one thought simpler readings at first-year level would be more appropriate. Other single responses indicated a need for better use of technology, more class time, more information and a briefing on “psych-analytic theory.” Another stated, “Can’t see any other way it could be presented.”

In the further comments section, there were seven responses. Six described the subject in terms of good explanations, empowering, enjoyment, fun and a “real blast,” whilst one commented on the ambiguity of the marking of the final assessment task and another commented on confusion related to the difficult readings.

5.6.4.4 Summary

The perceptions of stakeholders are summarised in Table 5.3, indicating the major issues identified in the subject for students, tutors, and subject coordinator.

Table 5.3 Subject B: Summary of perceptions of stakeholders		
	Stakeholder	Perceptions
Subject design	Students	Challenging but insightful.
	Tutors	Required clearer directions for implementation.
	Coordinator	Student-centred for individual or group work. Most involvement at subject design stage. No support for redesign or updating.
Content provision	Students	Readings too complex.
	Tutors	Language challenging. Readings too difficult for students. Need to 'bridge the gap' between theory and practice.
	Coordinator	Tutors could adapt teaching strategies (but did not communicate this to them).
Learning resources	Students	Access to library resources problematic. Glossary printed for use from website. Readings too difficult. Arrived late.
	Tutors	Workbook detailed and useful though language difficult.
	Coordinator	Provided sufficient resources in readings book and textbook.
Learning processes	Students	No concerns.
	Tutors	A good variety of activities, though some difficulty with language.
	Coordinator	Felt contact with students was desirable but not essential.
Delivery methods	Students	Supported the workbook and book of readings, clear directions for tasks.
	Tutors	Lack of preparation by students for tutorials Positive about workbook.
	Coordinator	Little contact with students until videoconference later in session. Low priority because of workload and lack of institutional support. Tutors' role to implement.

Table 5.3 Subject B: Summary of perceptions of stakeholders		
	Stakeholder	Perceptions
Skill development	Students	Language of subject was difficult.
	Tutors	Language of subject was difficult.
	Coordinator	Focus on developing an understanding of the concepts and language of the discipline.
Assessment	Students	Acceptable workload. Positive response to assessment.
	Tutors	Marking standards.
	Coordinator	No concerns expressed.
Feedback	Students	Constructive feedback from tutors on assessment tasks.
	Tutors	Always initiated by one tutor in particular, responses copied to others.
	Coordinator	Workload issues made feedback to tutors and students a low priority.
Roles and responsibilities	Students	Lack of preparation for tutorials.
	Tutors	One provided mini-lecture. Restricted by tasks provided.
	Coordinator	Administrated only.
Relationships	Students	Little communication with coordinator.
	Tutors	Concern at lack of support from subject coordinator.
	Coordinator	No relationship with students or two tutors.

5.6.4.4 Discussion

The subject provided degrees of flexibility for the students and the subject coordinator in terms of location, and time. The coordinator had developed the subject workbook some twelve months before the session started but did not edit it again, citing workload issues as the reason, and the students did not identify this as an issue. The factors that supported the implementation of the subject included:

- student-centred subject design;
- assessment and feedback to students;
- activity-based learning strategies.

The major constraints identified by the perceptions of the subject coordinator, the tutors, and the students included:

- level of difficulty of disciplinary language;
- communication, including use of educational technology;
- learning resources;
- roles and responsibilities;
- relationships.

Student-centred subject design

The students and the tutors valued the design of the subject, and although they found the language difficult, the activities were relevant to assist teaching and learning.

Activity-based learning strategies

Students responded quite positively to the subject, especially to the learning activities and discussions. However, the students had some difficulty with the readings.

They may have benefited from an activity that assisted them to develop the skills needed to understand the language of the discipline. For example, the Learning Developer (Arts) had worked with some subject developers to annotate a reading and explain to students how to read them for understanding. They may also have benefited from some introductory readings. This lack of skill development resulted in poor preparation for tutorials and concerns by some tutors that the students did not read the articles at all.

Assessment and feedback to students

The students and the tutors responded positively to the assessment tasks, indicating that the workload was reasonable. One tutor was concerned that she was marking too high for one student, which could be resolved through comparative marking methods.

Level of difficulty of disciplinary language

Early interaction with the subject coordinator may have addressed some of the issues to do with disciplinary language, since the students and the tutors could have benefited from some discussion on the terminology. The workbook could have benefited from some form of editing or peer review in relation to the language used, to introduce the students more effectively to the complex language of the discipline.

Communication

The subject coordinator made little attempt to communicate with either the tutors or the students, who expressed concern about this lack of interaction. One tutor consistently contacted him by email and he responded to all of her concerns, but the students received no contact through the website. The tutors interacted very little with each other, another aspect that could be improved through phone or email contact.

The students at one centre expressed concern about the subject coordinator's apparent lack of interest in them to the Educational Developer (Arts) during a visit to the centre.

As a result of this, the subject coordinator held a videoconference with all the centres late in the semester, providing an avenue for them to discuss their concerns and to get feedback on their understanding before the final assessment task. Where site visits are not possible early in the semester, the videoconference provides an opportunity for the students and tutors to develop a relationship with the subject coordinator, making further communication possible through asynchronous avenues such as email or the discussion space.

Learning resources

As the subject had a book of readings, the subject developer had not ordered many books for the library related to the discipline. This proved a difficulty when many of the students found the readings too complex to understand and sought further information to assist their understanding. The website was not well used by the students. It contained a summary of each module and an interactive glossary of terms, which tended to be printed by the students. The discussion space was available for the subject but usage was not compulsory, and those students who did use it found that the subject coordinator did not answer their questions, so they did not continue to use it.

Roles and responsibilities

The subject coordinator was concerned about the impact on his workload of coordinating the subject and made it a low priority. He also expressed concern about the lack of recognition at the institutional level for the work involved. The tutors were uncertain about their role; for example, the changes they could have made to the activities set out in the workbook.

They took full responsibility for the subject at their centres, with little input from the coordinator. The tutors could have benefited from better communication with the subject coordinator and with each other.

Relationships

Whilst relationships between the students and the tutors were positive, there was little development outside each of the centres. By holding regular meetings with the tutors using the available technologies, the subject coordinator could have improved his relationship with the tutors and relationships among the tutors.

By seeking their feedback on the subject implementation, he may have encouraged the tutors to feel more valued and less isolated. Regular contact, for example through the discussion space or an earlier videoconference, may also improve his relationship with the students.

5.7.11 Subject C

Subject C was an elective subject from outside the faculty offered on the South Coast as part of the interdisciplinary nature of the degree. The subject was delivered through lectures, which were face-to-face (Wollongong only) or web-based lecture notes in WebCT (for South Coast students), and through practical classes, which had two hours of tutorial support in all centres on alternate weeks. Three interactive web-only lectures were available for all sites, and replaced three face-to-face lectures in Wollongong. These contained an in depth coverage of specific topics, which were extensive and designed for students to read online. The other lecture notes were summaries of the lectures in note form.

The subject was described as an introduction to the content and research methods of the subject area. It covered several themes including those of cultural, historical, political, population, economic and urban geography within the Australian or environmental context (Subject C outline, p10).

The main objective of the subject was to raise awareness about, “contemporary social and economic issues” in a subject which provided, “more questions than answers” (Subject C outline, p10). The aims and objectives for each of the tutorials and the lectures are stated in terms of intended student outcomes. The learning outcomes were expressed for each theme in terms of questions that students were required to critically analyse (Subject C outline, p10). The tutorial component of the subject involved developing research skills, which included use of statistical analysis software.

Assessment tasks were ongoing throughout the semester with six practical reports to reflect learning in the tutorials and lectures, and the best five results taken into account for 50% of the total marks. There were two exams worth 25% each, one mid-session and the other at the end of session.

The following section describes the perceptions of the key stakeholders to the subject by identifying issues from analysing the data.

5.6.4.4 The subject coordinator’s perceptions

The subject coordinator was not available for interview when the data collection occurred. However, in informal discussions with the researcher during the development phase and later, he indicated a strong commitment to teaching the subject, and indeed had received an institutional outstanding teacher award that year. He spent a great deal of time developing the three interactive lectures on the website, but indicated that as his workload restricted him from doing this for all lectures, he provided lecture summaries, with guiding questions for the remainder. He was aware of workload implications for teaching on the South Coast, and had approximately 180 students enrolled in the subject on campus. The subject coordinator indicated that with the small number of students on the South Coast he felt that they did not need access to all the readings listed in the handbook, that he had provided such an extensive list because there were so many students in Wollongong. He was in contact with the tutors through email and telephone to discuss issues.

5.6.4.4 The tutors' perceptions

The tutors were required to support the practical classes, which were based on the student workbook activities, worth 50% of the assessment marks. There was no requirement to tutor in the traditional sense on the South Coast or on campus in this subject. The tutors were employed on a lower pay scale as demonstrators rather than tutors, as they were required to support the activities in the Practical Handbook, not to make links between the lectures and tutorials. However, the two more experienced of the three tutors provided this extra assistance.

The tutor in Centre 3 suggested that the workbook and directions for the tutor's role were very clear for the practicals, but that communication with the lecturer was difficult with regard to student queries about such things as examinations. Contact with the lecturer occurred through email, and the tutor indicated that he and his students felt isolated through the process and that perhaps a 'middle man' might assist with this.

He and his students found it hard to accept that lectures were only provided online in WebCT. He also indicated concern about resolving an issue with lack of readings in the local library. The additional library resources were placed on closed reserve in Wollongong, and a smaller sample was provided on closed reserve for the South Coast centres. This tutor summed up how he felt by describing himself as an "outsider" (Interview, 20/3/01).

The tutor at Centre 1 had some experience working collaboratively with adult learners in the TAFE system, and she described the subject as similar to this system:

[They] have a practical workbook that sets out basically what the skills are, what the objectives are of that particular workshop, what skills they're expected to develop in that module or that practical they're called, and then they go away and work together or by themselves... (Interview, 27/10/00)

She indicated keeping abreast of the lecture notes was a challenge, but this enabled her to make the links between the practicals and the lectures. The tutor found the statistical software a challenge, and was learning to use it just ahead of the students.

The classes often went beyond the three hours allocated and she had changed the timetable to allow this to happen. When she had difficulty with one of the exercises, she called on other assistance in the centre, including the Commerce students and other tutors:

The other day was a good example. We were doing Pearson's product moment correlation ... which I studied at university years ago, and I'd worked out how to do it on Excel. So I thought I was very clever ...to be able to say look here's how you do it, you know, you don't need to worry about it, but of course we had to do the manual working out. So we got the answer on the computer, and sat down with the data set that we'd generated from some surveys and then five hours later we just had this theorem on the board, we had half the Commerce students in here trying to do it as well, and we still couldn't get the same answer as the computer. So fortunately [tutor] arrived, so I sort of...drawing on all the university resources available in [the centre] and he came in and found our simple error in one column and away we went. He did it mentally and we verified it with the calculator and then we got the answer.

So everyone was very satisfied at the end of the day, and also very stimulated because they all went home and got on their computers and did more of them. They worked out how to do it, so they all felt very pleased and then they found out that the commerce students hadn't yet done it... so they feel like they'll be able to help them. (Interview, 27/10/00)

She felt this developed a relationship which was "very much collaborative learning, very informal, you know, often the students have taken over doing some writing up stuff on the board, or putting up ideas" (Interview, 27/10/00). Students communicated with her through telephone calls or she would see them in town and chat about their set tasks.

Communication was not a problem and the tutor frequently phoned or emailed the coordinator and felt she was supported well, especially with the "Tips for Demonstrators" section of the handbook. However, she was concerned that the students did not meet the subject coordinator, since they indicated that they enjoyed reading his text and would like to put a face to the name. The tutor had suggested a videoconference before the exam, but the coordinator did not feel this was necessary at the end of session. When she was on holidays she organised for her students to direct any questions to the tutor in Centre 2 whom she had met at the tutors' orientation.

She indicated that the students developed considerable skills in using educational technology during the subject including using spreadsheet software, the learning management system (WebCT) and, in particular, making best use of the photocopier to print out the lecture notes. She still did not have an active university email account but felt that she had not allocated the time to do this by getting her staff card, since it would take some time to receive it. Consequently, she used her private email for contact with students and staff but could not access the WebCT material. She also indicated that access to resources for wider reading was a problem for the students.

The tutor at Centre 2 structured the practicals to alternate between discussing the lectures and completing the practicals and they met weekly instead of fortnightly, increasing the workload for all. He indicated that he and the students had some difficulty making the link between the two components.

Two of the seven students dropped out of the subject and he felt that this was because they were mid-year enrolments and could not draw on the skills developed in earlier subjects. He had difficulty making the link between this subject and others in the degree. For support he indicated that “We need local networks so we're self-contained and self-sufficient tutors” (Interview, 2/11/02).

5.6.4.4 The students' perceptions

5.6.3.3.1 Focus groups

The student focus groups identified similar problems to the tutors with the subject including: a lack of linkage between the lectures and the practical component; lack of communication with the lecturer, despite the availability of the technology to do this; and the workload involved with the assignments.

The students at Centre 3 discussed the organisation of the subject, with the fortnightly practical classes and the lecture notes available on the website. They felt they did not engage with the lecture material since they could not see the relationship between this and the practical component of the subject. Some people read the required lectures during the first few weeks, but most left them until just before the exam. One of the students described rote learning the material as: “Just a matter of trying to memorise the headings and the points and you weren't necessarily sure what was going to be in the test.” They had weekly tasks to complete for the practicals, which were worth 50% of the marks, so they devoted their time to completion of the assessment tasks.

They felt disadvantaged by their lack of access to the face-to-face lectures. They also indicated that they had not used the textbook, and could not see how it related to the rest of the subject.

The students indicated there was some uncertainty and miscommunication about the exam, but they did not feel empowered to do anything about this, because of lack of communication with the coordinator. Their tutor made it clear that his role was to work with them on the practical component not to make the links with the lecture notes, and he found it difficult to find answers to their questions.

He certainly had strict guidelines as to what he had to do in Prac classes. Certain questions had to be answered before we could go [on] ... and we could not really go off from that. He'd write up the questions, we'd have to answer it sort of in groups then had to answer it as a class discussion. (Focus group, 12/3/01)

The students indicated the discussion space on WebCT was a waste of time since very early they realised that the subject coordinator did not respond. One student commented on the subject coordinator "would not know him if he [walked in the room]...". Another student described the subject as, "two separate subjects worth 50% each" (Interview, 12/3/01).

The students at the other centres supported these views and expressed concern about not meeting the subject coordinator, and about the workload involved in the small assignment tasks, which were worth 10% each. They felt that they just skimmed the surface of the subject and that the workload, which involved reading two online lectures per week as well as preparing for the fortnightly meetings, meant that they felt overloaded. The students at the more remote centre also expressed concern at only meeting fortnightly. They found communicating with the tutor and the subject coordinator difficult because most had no home access to email and telephone calls were expensive because of the distance some lived from town. The tutor at this centre held an extra class before the exam to discuss the lecture material with them and answer their questions.

5.6.3.3.2 Survey

The subject was held in Semester 2 and had a response of 17 out of the possible 19 students, with a response rate of 89% (Appendix 5.3). The percentages of students who strongly agreed or agreed are indicated in brackets in the following comments. Not all respondents completed all questions. Consequently, percentage responses are indicated in brackets as well as the number who responded.

There was not strong support for many statements in this survey. For subject organisation, teaching and learning, relationships, resources and tutoring the students indicated a negative response:

- organisation of practical classes (35%, with slightly disagree=35%, n=17);
- coordination with lectures (24%, with strongly disagree =29%, n=17);
- provision of library resources (Agree =18%, with disagree and strongly disagree =53%, n=17);
- appropriate lecture notes (29%, with slightly agree =24%, n=17); and
- enhancement of learning using educational technology (24%, with slightly agree =41%, n=17).

There were some barely positive results: effect of practical classes on understanding (55%, n=11) and presentation of course material (55%, n=11).

The modes of delivery using educational technology section also received some negative responses:

- effective use (36%, n=11);
- skills development (45%, with strongly agree =0%, n=11);
- subject site (41%, n=17); and
- use of email (45%, with N/A =23% n=11).

Results were slightly more positive for modem access (63%, with N/A =18%, n=11), and navigation of site (55%, n=11).

The students also responded negatively to the assistance to their understanding of the subject through the tutorials (18%, with slightly agree =23%, n=17) and their general enthusiasm for the subject (35%, with slightly agree =41%, n=17).

Most responded positively about the contribution of the assessment tasks to their understanding (71%, with slightly agree =23%, n=17), felt the marking was fair (59%, with slightly agree =12%, n=17) and that all students were encouraged to participate (71%, with slightly agree =18%, n=17).

The open-ended questions sought comments on the strengths and weaknesses of the subject, topics or concepts not learned effectively, and the usefulness of practicals and the workbook.

On the question on the strengths of the subject, students described the subject in terms of good organisation, flexibility, variety, diversity of questions and the different skills developed. Of the 13 comments, ten mentioned aspects of the content and tutorials in a positive way and two mentioned the skills they developed in report writing. One commented on the unrelated lectures despite the good content, another stated, "sociology, history."

On the least valuable aspects, there were comments from 11 respondents. Six of the comments described the practicals in a negative way: "useless", "disorganised", "too short" and "too long". There were single negative comments on the early start time, the number of assignments, the lack of feedback, insufficient marks for the workload, and the amount of work involved. Four students commented on the need for lectures and the need to discuss lectures during the practical classes.

The relationship between the lecture notes, which were provided on the web, and the practicals was mentioned in all open-ended questions in a negative way. The students had difficulty making sense of the lectures as they were expected to be responsible for reading these each week themselves in a self-study mode and to make the links between these and the practicals. As one student stated: "the teacher did not explain the lectures and was not available to discuss them."

For topics or concepts not learned effectively, there were 11 responses. Two students specified all topics and two indicated those involving computer skills. Three identified the lectures and another stated, "Quite a lot of the topics; because there was so much information in each lecture, it was hard to grasp the main information". Two students mentioned specific topics and another a specific skill.

There were 13 responses on the value in terms of time and effort of the practical classes. Four thought they were valuable and one was uncertain. Two described them as not useful. Four students again responded negatively to the lectures, because of the lack of time allocated to them in class. One respondent stated:

Class time should have been divided into half prac time and half lecture time as lectures were hard to understand and this is what our exams are based on.
Lectures were printed off at the last minute because we were not monitored.

Two indicated that better use of time could improve the class. However, there were 5 positive responses to the practical workbook and it was described as "indispensable", "really good", "useful", and "a valuable resource."

5.6.4.4 Summary

The perceptions of students, tutors and the subject coordinator of Subject C are summarised in Table 5.4.

Table 5.4 Subject C: Summary of perceptions of stakeholders		
	Stakeholder	Perceptions
Subject design	Students	Two separate subjects - practicals and lectures. Poor linkage between components. Practicals useful but would like time allocated to discuss lectures.
	Tutors	Role to focus on practicals only. Making links important for more experienced. 'Tips for Demonstrators' booklet useful.
	Coordinator	Student-centred. Need to balance workload with large on-campus group, so little contact with students.
Content provision	Students	Content interesting. Practical workbook useful. Printed book of lectures would be more useful.
	Tutors	Two made links between lectures and practicals. Workbook provided clear direction for tutorials.
	Coordinator	Lecture notes and interactive lectures were sufficient for content information.
Learning resources	Students	Insufficient access to library resources.
	Tutors	Insufficient access to library resources.
	Coordinator	Sufficient - did not need to read all resources, just a cross-section.
Learning processes	Students	Self-directed learning difficult for some. Interactivity in some tutorials supportive. Resorted to surface approach to learning.
	Tutors	Collaborative learning in one centre. Difficult to make link between two components. One inexperienced so followed guidelines.
	Coordinator	Tutors to support this – provided clear written guidelines for practicals.

Table 5.4 Subject C: Summary of perceptions of stakeholders		
	Stakeholder	Perceptions
Delivery methods	Students	Online lecture material did not meet needs. Interactive lectures worthwhile.
	Tutors	Contact with coordinator may have assisted tutors and students to make links between components.
	Coordinator	Acceptable for small number of students involved.
Skill development	Students	Practicals developed skills required for assessment tasks but felt unprepared for exams.
	Tutors	Well structured to develop report writing and computer skills.
	Coordinator	Practicals designed to foster this and build throughout the semester.
Assessment	Students	Communication about exams poor. No relationship with lecturer so no contact. Heavy workload for practicals. Marks insufficient for time taken.
	Tutors	Assessed all practical components.
	Coordinator	Same provision as for on-campus students.
Feedback	Students	Insufficient feedback on assessment tasks.
	Tutors	Experienced tutors made contact through email and phone.
	Coordinator	No feedback to students.
Roles and responsibilities	Students	Difficulty with time management for self directed learning.
	Tutors	Extra time taken by one for making links between lectures and practicals. Limited to practical component.
	Coordinator	Administrated subject. No contact with students.
Relationships	Students	No contact with coordinator.
	Tutors	Inexperienced tutor felt isolated, little contact with coordinator or other tutors.
	Coordinator	Did not initiate contact with tutors or students, though provided feedback as required to those who made contact through email and telephone.

5.6.4.4 Discussion

The subject was flexible in terms of place and time, requiring the students to meet with the tutor once per fortnight for three hours. In one centre, they negotiated to meet weekly instead, to assist students with understanding the lectures, and in another centre, the tutorial frequently went longer than the three hours.

The factor that most supported the implementation of the subject was the content provision through the workbook.

The major constraints identified through the perceptions of the subject coordinator, the tutors and the students include:

- Subject design.
- Skill development.
- Relationships.
- Communication.
- Resources.
- Roles and responsibilities.

Subject design

The practical handbook, which provided the student-centred learning activities and assessment tasks, was a positive component of the subject, as evidenced by the comments section of the survey. However, the students had difficulty making the links between the lectures and practical components, a problem compounded by the fact that some of them indicated in the focus groups that they did not have the self-discipline or time-management skills to read two lectures per week throughout the subject. Instead, they resorted to rote learning this material for examinations, resulting in poor understanding of the concepts and content. Explicit links between the two components needed to be made either in the handbook or within the lecture notes so that students could understand the relationship. The students felt they were disadvantaged compared to the students in Wollongong, as they did not have face-to-face lectures.

Content provision

The students responded negatively to the web-based lectures in many of the survey questions, but positively in the focus group at one centre and in the open-ended question about the subject content itself. Their perception of increased workload because of the online lectures was in contrast to the flexibility of attendance for three hours per fortnight, providing them with the time to read the material. Many of the web-based lectures were designed to be read off-screen, but three of them were interactive, designed to be read on-screen and to allow students to pursue the path of most interest to them to develop a deeper understanding of the topics. The students responded positively to some aspects of the practical classes, such as the workbook, though some felt they could have included more links with the lecture notes and preparation for examinations.

Skill development

The practical classes were designed to develop a number of student skills, including the use of computer software for statistics and report-writing skills. However, the student survey data did not indicate that this occurred, although the comments section of the survey indicated that two students felt their report-writing skills were enhanced.

Communication

Two of the tutors indicated they had regular contact with the subject coordinator through email and telephone. Improved communication about expectations of students, and opportunities to address their concerns with the subject coordinator may have improved the experience of students and the inexperienced tutor.

Resources

Tutors and students identified the limited provision of library resources across all centres as an issue. In Wollongong, the larger group of students had access to a wide variety of resources, held in closed reserve in the library for them. The resources in the South Coast centres included a small number of these, appropriate, according to the subject coordinator, to the number of students in the centres. This problem could have been overcome by providing electronic access to the same resources for all students.

Roles and responsibilities

The role of the tutor as demonstrator was to facilitate the group-learning activities provided in the practicals handbook and to mark the assessment tasks. This role was specified clearly to the tutors, though not fully understood by the students. Since this was the only science-based subject in the first year of the multi-disciplinary degree, the students were unlikely to realise the difference when they compared it to their experience in the other subjects. It meant the tutors were not expected to make the link with the lectures. However, the two experienced tutors extended their role, and their hours, to accommodate the needs of their students.

The students needed their own role to be specified clearly from the start of semester in this subject, where self-directed learning was required. They would have benefited from early contact with the subject coordinator, through videoconferencing or through the discussion space in the website, to provide them feedback on their learning and to assist them in making the connections between the practical component and the lecture notes provided.

Relationships

The subject coordinator did not develop a relationship with the students in this subject, resulting in a negative student view of the subject, though two of the tutors responded positively to communication with the coordinator. Two of the tutors developed good relationships with their students but at the expense of their own unpaid time.

In conclusion, issues of communication, expectations, and workload featured highly for students and tutors. Access to resources and relating the lectures to the practical component were problematic, and this resulted in students taking a surface approach to learning the subject. Students indicated a difficulty in taking responsibility for their learning of the content material and felt they needed more direction. This signals that the difficulties some students face in a student-centred learning environment, though the focus groups indicated this was more of a problem at one site, where the students were school leavers and the tutor was inexperienced. The tutors at the other sites spent considerably more time than they were paid for to assist their students. The subject coordinator, who was managing a large group of tutors on campus as well, responded to contact from the tutors when they initiated it. However, contact with the students may have overcome some of the difficulties experienced at the centres.

5.7.12 Subject D

In session two, Subject D, an elective subject, followed a weekly one-hour lecture/ two-hour tutorial format and was on offer in Wollongong as well as on the South Coast. It used a combination of local face-to-face tutorials, videoconferencing, and lectures. The lectures were available in two formats for the South Coast students, as written lectures provided on the WebCT site and in videos that were recorded during the lectures in Wollongong and made available at the centres.

A lecturer from the Aboriginal Education Centre was the only full-time academic member of staff based at Centre 3. She ran tutorials for students at all the centres, using videoconferencing. She alternated her location so that all students experienced being at the near end and at the far end of the videoconference, and had face-to-face contact with the lecturer. During her trips to Centre 1 and Centre 2, she also made a point of developing relationships through contact with the local community, for example through an involvement with the local high school at one centre.

The subject outline reflected that the subject was taught on Wollongong campus as well as on the South Coast. It provided an overview of the subject:

This subject provides (international and local) students with a general introduction to cultures, histories, and select current issues within Aboriginal Australia, through the key concepts of colonisation and sites of struggle. Topics vary from time to time but may include the Dreaming, identity, kinship, music, art, literature, language, foods and medicines, government policies to the 1990's, land rights, sovereignty, and appropriation of Aboriginality (Subject C outline, p1).

The learning objectives identified the importance of content understanding as well as skills development related to information literacy, essay writing, and articulation of key concepts through presentation. The objectives also related to content included linking aspects of Aboriginal culture and/or history to the Dreaming, to concepts of colonisation, to sites of struggle and to contemporary issues.

Assessment tasks were clearly identified in the subject outline, which also gave marking criteria for the presentations and essay, including the peer-assessment task evaluation sheet for use during the oral presentation. The assessment tasks incorporated a library assignment (worth 10% of total marks); an oral presentation (20%); providing leadership for a discussion (5%) then completing an essay on the topic (25%); and a reflective journal, which was submitted twice during the semester (40%).

The subject outline also clarified aspects of attendance to students, requiring an 80% attendance at tutorial classes. It also stated that where students were unable to meet the requirements, they could make up their attendance through a written assignment on the topics discussed, after negotiation with the lecturer/tutor.

A high staff turnover during the subject development and delivery phase meant that both the tutor and the subject coordinator were not involved in the original development of the subject. The coordinator had been appointed in Session 1 and the tutor took up her position shortly before the session started, so there was little opportunity to make changes to the subject design.

5.6.4.4 The subject coordinator's perceptions

The subject lecturer, based in Wollongong, had taken over the subject as a new staff member after the departure of the previous coordinator. As the videoconferencing facilities had not been booked the previous year, they were unable to use these for lectures and so were dependent on amateur videos of the lecture in Wollongong each week, which were sent to the students at the remote sites. The lecture notes for most weeks were provided to the students on the website. The subject coordinator expressed concern at the lack of Aboriginal students on the South Coast, and that some of the content, particularly the focus on the Dreaming, was not appropriate for non-indigenous students. She saw the greatest challenge in the subject as: "Teaching Aboriginal Studies within a non-indigenous environment. Because it's an alien environment to the subject matter. And you've got to teach in a western way...you're teaching a non-western subject in a western way" (Interview, 25/9/00).

The lecturer also expressed concern at the students' essay-writing skills and felt there was great need for improvement. She acknowledged the greater teaching experience of the tutor and indicated that the responsibility for teaching and learning in the tutorials rested with the tutor. However, since she received little support when she first started at the university she communicated often and was very supportive of the tutor: "It's already been improved - the support. I think networking is the key. Not being forced to work in isolation because I think it's ridiculous in this day and age, but networking. And that is what is happening" (Interview, 25/9/00).

5.6.4.4 The tutors' perceptions

The tutor was the only permanent lecturer based at the Centre 1 and she was responsible for tutoring at all the South Coast sites. She used videoconferencing and rotated visits to the different sites so she met face-to-face with the students in all locations. Her background was in history not Aboriginal Studies, and she had strong views on how the content area should be taught, which was as Australian History from an Aboriginal perspective. She felt that the students relegated Aboriginal people to the past and that their life experience made it difficult for them to relate to the life of Aboriginal people in modern days. She expressed concern at the lack of indigenous students in the group and related this to a negative experience with such a group in a previous university. She also expressed concern at the lack of student preparation for tutorials at Centre 3 and the resultant lack of discussion. She attributed this to their lack of life experience and the fact that many were school leavers whilst the students at the other centres tended to be mature-age.

The early development of the subject by a lecturer who had since left the university meant a lack of ownership by the coordinator and the tutor. There were some issues firstly because it had been developed for an audience of international students and secondly because of different beliefs about what content was appropriate to share with non-indigenous students. She felt that the subject design was not appropriate for the South Coast students and that the subject needed redevelopment.

The lecturer also felt like an outsider at the centre, as a newcomer. She found it difficult to cope with the organisational and administrative processes required in Wollongong and spent a great deal of time trying to find information about such things as getting a computer, accessing her payslip and getting an email password. "I rang [the person in] personnel and he was overly frustrated, 'It's all online, it's all online.' 'Well', I said, 'I don't even have a computer at this stage.' So the guy was very nice and sent me hard copies". She had little contact with other tutors and staff in the centre, though had a great deal of contact with the subject coordinator in Wollongong.

Technology was an unknown quantity for the lecturer since she had not used WebCT before nor had she experienced videoconferencing. She had had no previous experience with flexible approaches to teaching and learning. She had no opportunity to attend the staff development program for tutors as she arrived at the start of session and information about the activities had been provided electronically.

It was a month into session before she had a computer on her desk and initially this made it difficult for her to access the online components of the subject. It was also difficult for students to be able to contact her through email or by phone, as it was several weeks before this was also in place. The technician in her centre supported her to use of videoconferencing and she eventually felt comfortable using it. However, generally she felt anxious about using technology: "I was terrified, ... I haven't got a good and quick brain for technology, and I'm talking about just CD players".

5.6.4.4 The students' perceptions

5.6.4.3.1 Focus groups

Timetabling difficulties created a problem with the videoconference lectures to the centres that had initially been scheduled before the tutorials. The tutorials were held from 6.30 to 8.30 pm. The students received some short, amateur videotapes of the lectures, but most relied on the lecture notes in WebCT, and these were not available for all lectures. One student reported that, "[the taped lecture] was boring - no one really paid attention" (Focus group, 6/3/01).

One of the assessment tasks involved reporting on the Dreaming and one of the students, who listened to a local Aboriginal telling his story, discovered that it was not appropriate to retell the story. She stated: "It was amazing talking to [him] and I was so glad I asked him afterwards because he said no-one was to speak of it...I was, as a female I was not to speak of it" (Focus group, 26/10/00).

The tutor prepared the students on the use of acceptable language in the discussions, and some of the students found this difficult, concerned that they would use the wrong terms and offend. The students at Centre 3 also found it hard to speak up in the tutorials and the focus group at the centre tried to explain this. They felt both sides of history should be discussed; that is, the white perspective should be discussed too, and that perhaps a debate would be more appropriate than only presenting the Aboriginal view. They expressed their concern:

Student 1: I think it's just because...it ...you don't want to say, people don't want to say...

Student 2: No-one wants to be too controversial. No-one wants to offend anybody.

Student 3: You've got to be politically correct in a subject like that.

Student 1: It's hard not to. It's hard to have a discussion without presenting two sides to the argument. No-one wants to take the lower side, because its so its so easy to be...

Student 3: branded...

Student 1: it is quite

Student 3: as a racist

Student 1: especially in that sort of environment

Student 3: exactly (Focus group, Centre 3, 12/3/01).

They pointed out that because the lecturer was Aboriginal they were concerned that they would offend her, but later pointed out that they were more worried about conflict with other class members if they challenged people's views during presentations;

Student 2: [Tutor] is approachable - just email me whenever you want - doesn't even have to be uni-related you know, about anything. Email me come and see me, talk to me before class, after class. So it's just when we actually get into the class that's when we have our problems.

Student 1: Yes it's easier to write something in your journal than to speak in front of 20 people in the class. (Focus group, Centre 3, 12/3/01)

Although the lecturer gave an overview of the lecture each week, she expected the students to come prepared for discussion in the tutorials and the students found this difficult. The presentation assessment task was particularly difficult for the students as they were to peer-assess the other students, via videoconference. The marks from the other students were averaged to arrive at a result. The videoconference tutorials also added extra stress for these students when they were making presentations, and because of sound difficulties. As the students pointed out however, this had its advantages when the tutor was located at another centre:

Student 2: I don't think we cooperated very well.

Student 1: Some people took it as an opportunity to sort of sit off-camera and leave about an hour and a half early. (Focus group, Centre 3, 12/3/01)

The students at the more remote centres did not have the same perspective as this group. Although they indicated they felt the subject needed “tightening up”, they enjoyed the subject:

And it's a different style of learning too, you know, she's incorporating, not a lot of academic jargon going on, mostly chit chat and learning through discussion, like with that overview of the lectures ... (Focus group, Centre 1, 26/10/00)

5.6.4.3.2 Survey

The Subject C survey gained a response of 21 though the enrolled number was 19 students at Shoalhaven, a response rate apparently greater than 100% (Appendix 5.4). The apparent anomaly was due to part-time students who were enrolled in Wollongong on the database but actually attending the Shoalhaven Campus, and reflected an inconsistency in the new Student Management Package, which did not track location of students correctly. The student numbers were accepted at 21. Results are given as percentages of the sample number (n=21) out of the accepted number of 21 students from the three centres.

All students responded to all statements in the survey, except statement 10 where there were 19 responses, and not all responded in the open-ended questions. The percentages of students who strongly agreed or agreed are indicated in brackets in the following comments, with complete results available in Appendix 5.4.

In the survey, the students' response was barely positive about easy to follow content (52%, with slightly agree = 24%) and library resource provision (52%, with slightly agree = 19%). There was a less positive response to:

- allowance for different backgrounds (43%, with slightly agree = 24%);
- match of teaching methods to aims and objectives (48%, with slightly agree = 24%);
- match of teaching methods to assisting learning (33%, with slightly agree = 24%); and
- tutorial clarification of lecture material (48%, with slightly agree = 19%).

They indicated that their oral and communication skills (62%, with slightly agree = 19%) were developed further as was their ability to think and write in the discipline (67%, with slightly agree =14%). Although only 52% thought they were actively engaged in their learning, a further 38% slightly agreed with the statement. The assessment items formed an important part of the learning experience (81%) and feedback was constructive (86%).

The notion that educational technology was used effectively to support the subject was barely supported by the students (57%, with slightly agree =19%), and the bulletin board was not seen to be used effectively to communicate with other students (10.5%, n =19).

The open-ended questions sought comments on the most valuable and the least valuable aspects of the subject, and provided for any further comments. On the most valuable aspects of the subject, there were 17 comments. Opportunity to share insight into Aboriginal culture featured highly, with six comments about how relevant and interesting this was, and from one person to see a different point of view from their own. Two comments indicated that the content material was accessible and supportive. There was one comment on how constructive the feedback was and two found the reflective journal assessment task valuable. There were six comments on the insight into the issues the tutor was able to provide, describing her as fantastic, knowledgeable and qualified to speak about the issues raised.

The least valuable aspects drew 16 comments. There were six comments on the poor quality of the videotaped lectures, and two on the use of videoconference. Some individuals commented on the tutorials indicating issues with lack of time, lack of structure and difficulties in engaging with the discussion. One commented on the bias in the subject towards Aboriginals and another commented on the “whining tone” of the lectures, and stated: “As a white person I felt I was being blamed for all of the Aboriginal peoples’ problems”. One commented on the feedback on the essay and pointed to the “severity of criticism” in this.

In the 11 further comments, three remarks pointed to the lack of structure of the tutorial, the length of the tutorial and the preparation required. Two felt the subject could be designed better and one person felt the local community could be more involved with the subject and another suggested a video which could be included as a resource for the subject. Three students indicated that their enthusiasm for the subject meant they would continue their studies in the area.

5.6.4.4 Summary

The perceptions of students, tutors and the subject coordinator of Subject D are summarised in Table 5.5.

Table 5.5 Subject D: Summary of perceptions of stakeholders		
	Stakeholder	Perceptions
Subject design	Students	Poor quality video lectures. Online lectures acceptable but some missing.
	Tutor	Lack of ownership. Geared to International students not local.
	Coordinator	Lack of ownership.
Content provision	Students	Stimulating and interesting. Bias to indigenous perspective.
	Tutor	Some content provided inappropriate for non-indigenous students.
	Coordinator	Lack of ownership.
Learning resources	Students	Web based lectures incomplete.
	Tutor	Difficulty with access for first few weeks.
	Coordinator	Updated where possible.
Learning processes	Students	Challenged by content material and discussion. Enjoyed the learning through discussion approach.
	Tutor	Student preparation essential for successful tutorials and to engage in fruitful discussion.
	Coordinator	Tutor's responsibility.
Delivery methods	Students	Difficulties with videoconference. Valued face-to-face tutorials. Avoided conflict in discussions in one centre. Video lectures unsuitable.
	Tutor	Technology mediated teaching was a challenge.
	Coordinator	Would be more successful if indigenous teaching methods used.

Table 5.5 Subject D: Summary of perceptions of stakeholders		
	Stakeholder	Perceptions
Skill development	Students	Improved oral and communication skills. Developed ability to think and write in the discipline.
	Tutor	Used reflective journal responses to model academic argument.
	Coordinator	Tutor's responsibility.
Assessment	Students	Reflective journal valuable. Technology mediated presentations difficult initially. Peer assessment on presentations unsuitable. Assessment task on the Dreaming inappropriate.
	Tutor	Peer assessment task a difficulty for students.
	Coordinator	Tutor's responsibility.
Feedback	Students	Detailed feedback on journal excellent. Though could be confronting at times. Constructive. Severe.
	Tutor	Provided feedback on all assessment tasks.
	Coordinator	Worked closely with tutor.
Roles and responsibilities	Students	Some did not prepare for tutorials.
	Tutor	Understood role. Worked closely with coordinator.
	Coordinator	Understood role. Worked closely with tutor.
Relationships	Students	Supported by journal and face-to-face contact.
	Tutor	Face-to-face contact with students supported this.
	Coordinator	With tutor.

5.6.4.5 Discussion

There was flexibility in this subject in terms of place and time, with the students required to attend a two-hour videoconference tutorial once per week and to read or view the lectures at a time that suited them. The lecturer, who tutored in the subject, travelled to the different centres and this meant that she met all of her students and had an opportunity to develop relationships with them. She conducted videoconference tutorials from these locations throughout the semester.

The factors that enabled the implementation of the subject included:

- Roles and responsibilities.
- Skill development.
- Assessment and feedback.
- Relationships.

The major constraints identified through the perceptions of the subject coordinator, the tutors, and the students included:

- Subject design.
- Content provision.
- Educational technology.
- Communication.

Roles and responsibilities

The roles of the tutor and subject coordinator were much clearer in this subject, probably because the tutor was a full-time lecturer at the Shoalhaven Campus. She had frequent contact with the subject coordinator, who was less experienced, and they collaborated on the subject throughout the semester.

The students at the Shoalhaven Campus found their own roles unclear in the student-centred environment of the tutorials. Lack of preparation through not reading the web-based lectures or watching the video lectures meant some students were unprepared for the discussions, so drew on their limited life experience to enter the debates, or did not engage in the discussions at all. By setting clear expectations from the first tutorial and explaining the student role this problem could be overcome.

Skill development

The students and the tutor developed the skills needed to use the educational technology, especially the videoconference during the semester. However, the tutor and the subject coordinator recognised there was still a need to improve the essay-writing skills of some students, despite their experience from first semester.

Assessment and feedback

The students responded well to the assessment activities, especially the reflective journal which allowed them to have personal communication with the tutor about the nature of the content, which some found challenging in terms of their personal belief systems. The students were encouraged by the feedback they received in this assessment task. The presentations to other students using videoconferencing were a challenge for them, though most overcame this quickly, once they started the presentation. Students found peer assessment a challenge and this may have improved if they had had a clearer understanding of its purpose.

Relationships

The students at Centres 1 and 2 spoke of the tutor with high regard, despite the fact that she was located at the other centre. Her regular visits meant that all students had face-to-face contact with her. The journal assessment task also supported the development of a relationship with her.

Although they did not meet the subject coordinator, they did see her on some of the video lectures and there were no comments about lack of contact with her, as there were in other subjects. Since the tutor was a permanent member of staff, she was available to students outside the allocated time for tutorials.

The students at Centre 3 found the sensitivity of the content made it difficult for them to discuss some of the issues in class, concerned that it would result in an argument with some of the other students or that they would be labelled as racist. They found the reflective journal a safer place to air their viewpoints, indicating the level of trust they had with the tutor, though not all students reported positively on this aspect in the survey.

Subject design

The subject design was similar to a traditional subject design of one-hour lecture and two-hour tutorial. However the videoconference lectures did not proceed and instead the students were sent an amateur video of the Wollongong lecture, which was usually supported by lecture notes provided on the website, though some were missing. The new subject coordinator and the tutor lacked ownership for the subject content and were critical of it. They were not well prepared for what was required in a distributed learning context since they were both new to the institution, and there was insufficient time to redesign the subject or to become familiar with the technology involved.

Content provision

The provision of content through recorded lectures and web-based lecture notes did not meet the expectations of the students, who were highly critical of them. This could have been improved through the lecturer based at the Shoalhaven Campus providing the lectures, or providing quality video recordings of the lectures if they were to remain in the traditional format. To improve flexibility and understanding, they could be rewritten as a study guide which required the students to interact with the content material, perhaps using the reflective journal to comment on aspects as the semester developed.

Communication

Communication was a problem in this subject, but not for the same reasons as in the other subjects. The students' difficulties with discussing an indigenous perspective on history may also be a feature of on-campus discussion, but the addition of technology mediated discussion through videoconferencing added to these difficulties. The reflective journal, which was a major component of their assessment, provided students with an opportunity to communicate with the tutor. Their responses and the feedback they received were comprehensive, though this may have moved some of them out of their comfort zones, when their personal beliefs were challenged by the indigenous perspective on history.

Educational technology

The use of videoconferencing technology hindered interaction for the students and the tutor, and the low quality video of the lectures did not support student learning. The students found the less structured format of the tutorials a challenge and would have preferred more direction. The evening time slot for the subject may have also contributed to this. Whilst students used the web-based lectures, they did not use the discussion space on the website. Since this was not an assessed component, students were less likely to make use of it.

In summary, although the students responded positively to the subject in the focus groups, and particularly to the tutor, there were some major issues in the subject to do with content provision (especially poor quality videos), the use of technology, and the structure of tutorials. This had an impact on student learning. The approach to learning used may have provided some difficulty for students who preferred to be more directed, especially in a subject in which they perceived political correctness to be important, and this was further hindered by the use of technology for their tutorial discussions. The assessment tasks, though daunting for some, were well received by the majority and most students felt that the feedback was constructive.

5.7 Summary and discussion

The Bachelor of Arts (Community and Environment) was designed as an interdisciplinary degree to provide students with a broad understanding of the different disciplines in the Social Sciences and Humanities. Systems established by the central university structures to support students include communication systems, course management system and skills development support.

There were seven subjects on offer in 2000 through the Bachelor of Arts (University of Wollongong, 2000e), which included five compulsory subjects and two elective subjects. Data for four subjects were analysed to identify the perceptions of the academic staff and students on the first year of implementation.

There was a variety of teaching and learning strategies used in the first year. Tutorial or practical support was provided locally through tutors, while subject design and coordination occurred at the main campus in Wollongong.

A number of common themes emerged in the perceptions of teaching and learning in a distributed learning context.

5.7.1 Experience of teaching and learning

The changing context of teaching and learning in higher education has presented new opportunities for teachers to examine the way in which they teach and how students learn (Biggs, 1999; Chalmers & Fuller, 1996; Ramsden, 1992). The experience of teaching and learning focuses on the relationship of curriculum design, teaching strategies, the nature of the students and their approaches to learning, and other factors that influence the learning environment. This move from teacher-centred practice towards student-centred practice aims to improve the quality of the learning outcomes, a task that involves the constructive alignment of teaching and learning activities with assessment tasks to achieve the stated objectives (Biggs, 1999). It also promotes a deep rather than a surface approach to learning to improve student learning outcomes (Biggs, 1999; Marton & Säljö, 1976; Ramsden, 1992).

More flexible approaches to teaching and learning are also supported in the literature as ways to meet the needs of the more diverse student population through the use of a variety of teaching and learning strategies, learning resources and educational technology (Boud & Prosser, 2002; Chalmers, 1999; Collis, 1998; Oliver & Herrington, 2001).

For the Faculty of Arts, the Bachelor of Arts (Community and Environment) involved changing the way the degree was structured from that traditionally used in the faculty. The degree design process meant thinking differently about the way the degree was developed through examining the desirable attributes of a graduate, and determining the skills, attitudes and knowledge they needed to acquire or develop in order to achieve these. It involved a process of change management, which included a focus on staff development, and it was critical to change the conceptions the developers held of teaching and learning, notions well supported in the literature (Biggs, 1999; Fullan, 2001b; Taylor, 1997). The subject developers reached a broad agreement on the approach, goals, and structure of the degree, including how the skills, knowledge, and attitudes would be developed across the degree program, a process of course design supported by Toohey (1999). The subject design process then became the responsibility of the individual subject developer.

5.7.2 Collaborative subject design

The preparation and planning procedures for designing subjects in a distributed learning context can be more complex and time-consuming than for subjects taught in a traditional way. The design requires collaboration with other staff, preparation of learning materials and frequently meeting deadlines for those involved in the multimedia, text, video and print production that require completion months before the start of semester (Chalmers, 1999; Sorg et al., 1999; Taylor, 1999b; Torrisi-Steele & Davis, 2000). This change in the role for academics, unfamiliar with resource-based or distance education processes, can lead to feelings of a loss of ownership or control of their subject, a concern expressed in other studies in the area (Anderson, Varnhagen, & Campbell, 1998; Taylor, 1999a; Taylor & Blaik, 2002).

For the South Coast degree, the subjects were designed in Wollongong by the individual subject developers, supported by their involvement in the South Coast Project (Arts) group and by staff from CEDIR, the Library, and Learning Development. This required that subject developers reconceptualise teaching and learning for a distributed learning context. It required an investment in time to design materials in collaboration with staff outside the faculty that would be open to public scrutiny, something that did not usually occur in a traditional teaching context. It also involved a longer timeline for subject development than that previously required for on-campus teaching, where the focus could be more on content to be learned, rather than the teaching and learning strategies.

The students responded positively to the design of two of the subjects, Subjects A and B, where there were clear links among the learning outcomes, the teaching and learning strategies and the assessment tasks, or in Biggs' terms where "constructive alignment" had occurred (1999, p25). In one subject where the responses were not as positive, students commented on the lack of relationship between the content (the lectures) and the practical aspects of the subject and indicated that they could not link the two together, suggesting that this subject was like two separate components. Whilst the practical component was student-centred and activity-based, the majority of the lecture notes required students to manage their time to download and read them with no feedback process for the learning, an approach which has negative consequences for student learning, as indicated by Ramsden (1992) and Biggs (1999).

For two subjects, the subject developer was not the subject coordinator and this led to a lack of ownership, and criticisms of the subject design and implementation. Another subject coordinator gave a low priority to his role in student learning and communicating with tutors, believing that after he had designed the subject, the tutors were responsible for the implementation.

5.7.3 Content provision

Content for several of the subjects was provided through a comprehensive study guide or workbook, a common practice in distance education (for example, Rowntree, 1992). In this case, the activities were designed for completion in tutorial groups rather than at the individual level, though one subject coordinator developed the material so that it could be used individually or in groups. The subject was divided into modules or topics rather than lectures and this provided students with a clear framework for the subject. It worked best where content notes were incorporated with interactive elements which were activity-based, and required students to reflect on their understanding of the material. Such notes also provided links with the teaching and learning activities in the tutorials. The students valued the face-to-face contact with their tutors, and their relationships with their tutors had a significant impact on their learning where they received feedback, an important component of learning identified in models for teaching and learning (Biggs, 1999; Laurillard, 2002; Ramsden, 1992). Students responded negatively where content was provided as summaries of lectures, and often did not make use of them until examinations were imminent. This encouraged a surface approach to learning and meant that students were not making the links between the theory of the subject and the practice in tutorials and practicals (Biggs, 1999).

5.7.4 Assessment strategies

In this context, students indicated a need for a clear idea of time commitment required for each subject and reasonable workloads. Many students were working part-time or full-time and had family or other commitments, common issues identified by other first year students studying at university, whether school leavers or mature-age students (McInnis et al., 2000).

The students found the assessment tasks reasonable for most of the subjects. However, for Subject A in Centre 2, when the students perceived the workload was too high, they resorted to using a surface approach to learning to complete the assessment task, a practice identified in other studies (Entwistle & Ramsden, 1983; Kember & Leung, 1998; Marton & Booth, 1997).

In addition, when students felt the marks received for assessment tasks did not correspond with the amount of time they spent on the task, they needed clear feedback to ensure that they improved their skills and understanding to improve the quality of their work. To overcome this problem, communication could be improved between centres and subject coordinators. This would ensure that assessment tasks are implemented as the subject developer intended. The tutors and subject coordinators could also establish marking criteria for assessment tasks with a shared marking system, where tutors and the subject coordinator double mark some assignments to ensure the same standards are adhered to in all centres.

In another centre, students indicated that they did not read the lecture notes for one subject until just before examinations, with the result that they used rote-learning methods to prepare for examinations and that links between the theory and the practice were not made throughout the semester.

This issue could have been overcome by ensuring a link between content material and tutorials, so the content is not viewed just as material to rote-learn for examinations. This may require additional time with tutors to review the material to ensure students receive feedback on their learning, before the formative examination, but could also involve developing the material so that students are actively engaged in their learning through reflection on the content as part of the learning process.

5.7.5 Access to and provision of learning resources

The provision of resources is fundamental for student learning in a distributed learning context (Promnitz & Germain, 1996). In addition, new procedures for library services may be required to meet the needs of students (Crawford & Gorman, 1995; McPherson, Curry, & Humphreys, 1997; Pickett & et al, 1990).

Students were critical of the lack of library resources for several of the subjects, especially in the access centres. For one of the subjects the students could access only a small proportion of the resources in the reading list. All of the resources were available to students in Wollongong, where there were 180 students, and the lecturer had provided what he considered a reasonable number of resources to the South Coast students.

For another subject the students perceived the readings provided as too difficult and that they required other library material to support their learning. Resources could be provided through the web-based subject site allowing all students to access the resources they required, but they must be appropriate for the students' level of understanding.

5.7.6 Support for skill development

In a distributed learning context there are two key areas in which students require support: developing academic learning skills, such as essay writing skills and critical thinking; and developing skills to use technology, such as word processing skills, accessing databases, and using email and discussion spaces.

As the student profile has changed significantly in higher education in Australia since 1988 with the move to a mass education system, support services have been identified as critical to enrolment attrition (Promnitz & Germain, 1996). On-campus student support services are often well developed, but may be difficult for non-local students to access or may simply not be used. Integrating learning support within subjects may improve the skills of all students.

At the University of Wollongong, learning support for students is provided through academic staff in the Learning Development Unit. Their approach of providing all students with assistance in making the transition to tertiary and discipline-based studies is an innovative and systemic approach to learning support (Skillen et al., 1998; Skillen, Trivett, Merten, & Percy, 1999). However, for the South Coast degree, learning support was only provided through workshops that many students did not attend because of timetable conflicts or other commitments, or individual meetings with the learning developer. Future offerings of the core subjects could include embedded learning support that would ensure that all students develop the skills required. This could be supported through the provision of access to online support resources so that students can use materials when they require assistance.

There is an expectation by academic staff that many students have developed information technology skills during high school, however, some school leavers and mature-age students may not have used computers at all prior to attending university (Candy, Crebert, & O'Leary, 1994). Moran (1995) identifies that students require "support and training ... in accessing and learning how to use information technologies in the context of their study" (1995, p16). Barrakeet et al.'s (2000) study of postgraduate student access and equity issues with ICT also supports this finding.

Training students to use technology could be embedded in subjects to ensure that students develop the skills as they are required. Although some training was provided for South Coast students in orientation week, they indicated during the focus groups that they needed more flexible and ongoing access to training. Computer-based training packages and print-based support would allow flexible access to meet student needs, whilst ongoing skills development within subjects would further meet these needs.

5.7.7 Relevant use of educational technology

There is an abundance of literature supporting the use of educational technology for improving learning outcomes in higher education, (see for example, Jonassen, 1996; Laurillard, 2002; Nikolova & Collis, 1998) and some which is highly critical of its use, (Hara & Kling, 2000; Noble, 1997). It is clear however, that pedagogy not technology should determine curriculum design (Collis & Moonen, 2001). The choice of the best teaching and learning strategies should determine whether, if at all, technology will be used to support these activities and when it is used that the most appropriate medium is chosen (Alexander, 1995).

The choice of the best medium for the task is essential, as well as ensuring that high quality resources are developed that meet the learning needs of students. Determining the most appropriate technology to support learning can be a time consuming task for those designing subjects, requiring the development of new teaching skills and conceptions of teaching.

When audio and videotapes are used, high quality recordings are required if students are to make use of them. However, time constraints and accessibility of the resources required to create a high quality solution can limit the choice of medium.

In addition, James and Beattie (1996) emphasise the impact on the workload of subject developers:

Firstly, many staff were finding it increasingly difficult to control the proportion of their time devoted to teaching duties. ... Secondly, the extensive time needed to produce high quality learning materials, whether printed, broadcast, taped or computer-based, is well known. ... Overall, academic staff regretted the 'research and writing' time lost to them while designing and creating learning materials. (1996, p363)

Some researchers identify the use of videoconferencing as suitable for small group work and discussion (Knipe & Lee, 2002; Mason, 1998) whilst others report it as useful for lecturing providing contact for remote students with the instructor or expert (Badenhorst & Axmann, 2002; Laurillard, 2002). Freeman (1998, p204) reports the potential for disruptive behaviour at the remote sites with students reporting a dramatic effect on their concentration and behaviour. This can be the result of "inexperience, bad preparation and planning, unsuitable teaching strategies and inefficient training" according to Knipe and Lee (2002, p311) and they also warn of the necessity for the equipment operating properly within an appropriately organised environment.

For some South Coast subjects involved in this study, the use of videoconferencing was problematic. Technical issues arose because of the limited time to test the equipment at the new centres, and lack of local support to address technical difficulties. The technology must be seamless and not interfere with students' learning, and although many trials had been held using videoconferencing before the year started, problems with sound had to be overcome as the classes continued. Training for academic staff to use the equipment is also essential, and although many had some initial training, some would benefit from further training in the educational use, especially classroom management with students at remote sites. Students also need to develop skills in using videoconferencing, especially when they are required to present seminars to students at other centres.

WebCT is most useful in subject design when students can perceive a benefit from its use. Interactive lectures were worthwhile, but web-based notes from lectures proved problematic for students who delayed accessing them, or spent time trying to print them on unreliable equipment. Such notes may have been better provided in printed form. Similarly, email and a discussion space is only useful where there is interaction involved, so directed activities are required initially to ensure students make use of this and develop the skills required.

If it is the point of contact with the coordinator, then regular responses from the coordinator are required, with an indication to the students of how frequently they can expect responses; for example once per week during consultation hours.

5.7.8 Clear roles and responsibilities

A dominant theme from the perceptions of students, tutors, and subject coordinators was a lack of clarity of the roles they played in a distributed learning context. This affected the level of responsibility they took for aspects of teaching and learning.

The students on the South Coast indicated some uncertainty about their roles, a common problem for first year students at university (Krause & Duchesne, 2000; Pargetter et al, 1998). In a student-centred learning environment students need to understand their own role and that of their instructor, since this may differ considerably from their previous experience if they have engaged only in teacher-centred instruction; for example at secondary school (Biggs, 1999; Ramsden, 1992). If students are to take responsibility for their learning then they need to have a clear idea of what this entails. One report argues further that “all learning is the mutual responsibility of students, faculty, and administrators. Student responsibility doesn't just happen. We must expect it, foster it, and nurture it” (Davis & Murrell, 1994, p93).

Advocates of student-centred approaches to learning indicate that the role of students has changed (Biggs, 1999; Ramsden, 1992). The literature on flexible learning initiatives also highlights the changing roles of the student and the teacher.

Students are expected to be more independent and require “self-initiative, self-motivation, and self-control” (Nikolova & Collis, 1998, p60). Academic staff are portrayed in the new learning environments as moving from the ‘sage on the stage’ to the ‘guide on the side’, as “consultant, collaborator, facilitator” (Nikolova & Collis, 1998, p60). Nikolova & Collis (1998, p60) caution that increased flexibility for the learner correlates with greater workloads for the teacher.

These findings are supported by the literature on the changing role and responsibilities of academics (Adams, 1998; Anderson et al., 2002; Coaldrake & Stedman, 1999; McInnis, 2000). Coaldrake and Stedman (1999) suggest that the impact of these changes includes: “pressures on time, workload and morale”; an increased “emphasis on performance, professional standards and accountability”; a move from local autonomy to an institutional focus; more specialised and demanding academic work; and the blurring of roles of academic and general staff (1999, p9).

Some subject coordinators on the South Coast considered their role as purely administrative after subject development, and that their workload on campus meant the South Coast was a low priority, especially since total student numbers were only equal to one tutorial group on campus. A lack of ownership of material developed by others also meant less commitment to the subject, an indication that team development of subjects may improve the process and allow for staff departures and study leave without significant impact on a new coordinator and students.

The tutors at the centres indicated a strong commitment to the new initiative and worked many unpaid hours to ensure its success. The importance placed on the role of tutors has become the focus of current research as the number of sessional staff in Australian universities, and elsewhere, increased with the reduction of full-time staff (Anderson et al., 2002; Coaldrake & Stedman, 1999; Gappa & Leslie, 1993; McInnis, 2000). A recent study on sessional teachers, who are defined as “any university instructors not in tenured or permanent positions” identifies key areas of concern for these staff: “employment stability, improving working conditions, the establishment of on-going support mechanisms, as well as assisting supervisors to improve the management of sessional staff” (University of Queensland, 2002).

Other studies indicate that sessional staff are dissatisfied with their experience, feel marginalised as they are not part the culture of the faculty, and feel they have a lower status (Bassett, 1998; Gappa & Leslie, 1993; Jacobs, 1998). They complained of being “isolated from the university, being unable to participate in decision making, having no access to support facilities or development opportunities and being subject to arbitrary fluctuations in employment” (Coaldrake & Stedman, 1999, p16). The perceptions of the tutors in the South Coast centres supported some of these findings.

The tutors’ role in the centres varied across subjects, and many broadened their role beyond that of tutor to become the key person for the subject, the ‘face’ of the university. Many provided extra support through extending tutorial times and provision of contact outside normal contact hours. Some felt alienated from the Wollongong campus, while others ensured that they developed a relationship with the subject coordinator, often at their own instigation, and with other tutors in their own centres, and to a lesser extent with those at other sites. Professional development for tutors was provided through tutor training workshops at the start of session, but this needs to be ongoing to meet the developing needs of tutors and for new tutors and to encourage relationship-building within and across the centres.

Support for new roles for academic staff can be provided in a number of ways, but a key method identified in the literature is through the development of a professional community. Community in tertiary institutions is described variously in the literature as learning communities (Kellog, 1999), professional learning communities (Hord, 1997) and communities of practice (Wenger, 1998). The notion of community would not be new to the South Coast tutors or to the subject coordinators, who may be involved in their own faculty, discipline, or local communities. However, the development of a learning community in a distributed learning context was something they had not been involved in before, and the incorporation of technology to support the community was also outside their experience.

'Community of practice' is a term coined by Lave and Wenger (1991) to describe how people share their understandings of work, responsibility, and knowledge within the workplace. A community of practice involves people who share their expertise and experience, in this case in teaching, and regularly interact to enhance their learning in this area. The South Coast Project (Arts) group demonstrated such practice in the process of developing the degree (see Chapter 4). A community of practice showed signs of development at Centre 1 amongst the tutors. It developed out of a need to belong in a new learning environment, a need for a shared understanding of the practices at the distant campus so that members could access knowledge and support as they required it, and a need for professional development to improve their teaching practice.

By strengthening the links identified, particularly between the tutors and those at the other centres, and between the subject coordinators and the tutors, the community has the potential to expand so that the members participate further in their professional development through their membership. As the community grows, the members may need to take the lead to instigate further communication with other tutors and with the subject coordinators. Increased numbers of students on the main campus, an increased workload and a requirement to research and publish has meant that academic staff have other constant and competing demands on their time. They may need frequent reminders and invitations to participate as a member of the community. However, the institution needs to recognise the additional work required through allocation of workloads and the rewards and incentives involved if this is to occur.

5.7.9 Appropriate rewards and incentives

The subject coordinators indicated there was often no time or insufficient time allocation for their coordination role in their workload. A workload allocation to recognise the demands of a distributed learning context for subject coordinators is essential, especially in the first year, since subject development does not stop at implementation. According to Reeves (2002) whilst there are many claims of increased workload for teaching staff in distributed and distance learning environments, there is little research to support the claim. He notes one study however, in an online teaching context that does offer such support (see Collis et al., 2000).

A role statement for both tutors and subject coordinators could ensure that people in these roles are clear about what is required of them. This may need to be developed at the subject level since the requirements vary substantially across subjects; for example, the tutor may be required to mark all assessment tasks in one subject and only some in another; the tutor may be required to monitor the discussion space for one subject and not use it in others. Such a statement would also ensure that when a subject developer is on leave it is easier for someone else to coordinate the subject.

5.7.10 Effective communication strategies

Communication with lecturers based at Wollongong was identified as a difficulty for tutors and students but perhaps no more so than on campus where 'knocking on their door' is also restricted. The availability of the lecturers is limited for a variety of reasons, including their increased workload. However, faculty-student interaction is identified as an important component of student learning (Astin, 1993; Kuh & Hu, 2001) and can be addressed through the effective use of available technologies such as email and discussion spaces, or making a specific time available for these students to telephone.

When the tutors took responsibility for contact with the coordinator, communication was usually improved, a reminder that 'out of sight, out of mind' was indeed a problem for coordinators with heavy workloads on campus. Feelings of isolation for sessional workers can be improved through greater contact with other tutors in the local centre, with those at other centres and with the institution. Regular, scheduled meetings for coordinator and tutors are essential to ensure clear communication and this should be face-to-face where possible, and if not at least through videoconferencing, so that tutors feel confident enough to initiate contact as required.

For the students, issues of isolation from Wollongong through lack of contact with coordinators had a significant impact. Because of the distance involved and time required, coordinators could not visit all the centres at the beginning of session. However, videoconferencing with students two or three times during the semester could improve this relationship and clarify any concepts or issues for students.

Other tools can also support this communication, for example telephoning the coordinator during consultation hours, use of email, or the discussion space in WebCT.

5.7.11 Strategies for relationship building

Relationship building in a distributed learning context requires greater effort on the part of all of those involved but is important for both students and tutors. Leadership and planning is required by all the members of the learning community to encourage this development. Fullan (2001a) in his overview of the literature on leadership and its impact on relationships within the organisation suggests that it is the people and their relationships which make the difference in a successful venture. Kouzes and Posner (1987) identify the basic tenets which leaders could apply to develop relationships: set clear standards, expect the best, pay attention, personalise recognition, tell the story, celebrate together and set an example. Distance provided one barrier to developing relationships for the subject coordinators and tutors on the South Coast, but had the subject coordinators also realised and acted in their role as leaders according to these basic tenets, the relationships may have improved.

Human contact is the basis for developing relationships. In particular, the clarification of roles and responsibilities has been identified as a critical component in this area. However, there is a need for relationship building to occur if such matters are to be discussed when there is a perceived power relationship, as there is with tutors and subject coordinators. Regular face-to-face meetings among the tutors and subject coordinators may have improved communication, limited in this case by distance.

The barrier of distance could be overcome through the use of information technology for communication. The use of appropriate technologies for communication and sharing such things as material on common marking procedures could benefit relationship building. Technology can be used to strengthen the links between tutors and lecturers through such things as videoconference meetings to encourage the development of social relationships and build the trust needed between the groups.

Increased communication between tutors and lecturers through email and listservers could also serve to enhance this development. Finally a website could provide a place for members to discuss teaching and learning strategies, to access information about teaching but most importantly to develop the relationships required to promote teaching and learning activities.

Regardless of which method is used to support communication and share teaching and learning materials, Fullan (2001b) points out that a culture of collaboration during the implementation process is required to “convert tacit knowledge into shared knowledge” and this occurs through interaction (p47). Increasing the level of interaction between students and subject coordinators, tutors and subject coordinators, and between tutors and tutors can only serve to refine the teaching and learning in this context, and in particular the roles and responsibilities of the people who are implementing the innovation.

This chapter has examined the Bachelor of Arts (Community and Environment) through the multiple perceptions of the stakeholders. Chapter 6 further analyses the data collection through an examination and discussion of aspects of the implementation which were not necessarily part of the learning program but which influenced it during the implementation of the degree. The chapter focuses on how the learning program was supported by the people, processes, and structures of the institution, and the impact they had on the implementation process.

Chapter 6

People, Processes and Structures

6.1 Introduction

This chapter describes aspects of the implementation that went beyond subject-specific issues, which were described in Chapter 5, but had impact on the implementation. Chapter 5 examined the teaching and learning program through the design and implementation of subjects. It analysed the perceptions of the students and academic staff involved specifically in the subjects. However, other aspects influenced the complex process of implementing the new Arts degree in the distributed learning context. This chapter focuses on the broader context of how the learning program was supported by the people, processes, and structures of the institution, and their impact on the implementation process. Finally, the chapter discusses how these key factors promoted or constrained teaching and learning in the distributed learning context.

6.2 Relevance to the study

This case study seeks to identify the characteristics that could constitute guiding principles and strategies to support teaching and learning in a distributed learning context. The second research question, which is the focus of this chapter, examines the factors that promote or constrain teaching and learning for staff and students in a distributed learning context. This question prompted further sub-questions about the people, processes and structures:

1. How did the structures support the implementation?
2. How did administration processes affect the implementation?
3. How did the infrastructure influence the learning environment?

A number of sources were analysed to address these questions including:

- Documents, such as the internal reports like The South Coast: Progress 2000 and Preparation 2001 (Wills et al., 2000), the Library - SCEN Review and Administrative and support arrangements for the South Coast campuses of the University of Wollongong (University of Wollongong, 1999a).

- Interviews conducted with key stakeholders including tutors, subject coordinators, centre coordinators, the Dean and Associate Dean of Arts and the manager of Technical Support Services, ITS.
- Interviews and focus groups held with students at the centres each semester.
- Personal communications with stakeholders.

6.3 Implementation

For the University of Wollongong, planning for the support of the implementation process had occurred through the various services such as CEDIR, ITS, the Library, Learning Development and other Student Support Services, and Academic Registrar's Division. In the first 12 months of implementation, many of these groups found that they had to change processes and procedures, which they perceived to work well on campus, to accommodate the needs of staff and students at the remote centres.

Whilst an educational innovation such as designing and implementing the new degree for the South Coast required planning and organisation on the part of the academic staff, it was also necessary to take into account the "larger culture, structures and norms" of the organisation to bring about sustained change (Senge et al., 1999, p26). Indeed Fullan (2001b) points out that implementation of innovations will take a minimum of two or three years, but that reforming the institution may take between five and ten years. He suggests that institutions should concurrently be working on making changes to "the policy, incentives and capacities of agencies at all levels so that valued gains can be sustained and built upon" (p109).

The following sections discuss the aspects that supported or constrained the implementation of the learning program in the distributed learning context. These included:

- the structures, including support units and the support roles of people located in the centres and within the faculty on the main campus;
- the administrative processes, including student, staff and faculty administration; and
- the infrastructure, such as the teaching spaces, the library facilities and educational technology networks.

6.4 Support structures

The university provided support for student learning on the South Coast through a number of support units. Academic staff also received support for teaching through these units, usually through the subject design stage. However, they also required other support for the implementation, which is usually provided through the leadership and management of the faculty and through the institutional reward systems.

6.4.1 Support units

The University of Wollongong provides support for student learning, beyond direct teaching, through a number of units. These included Student Services, the Library, Information Technology Services and AV Services (CEDIR) as well as support from within the faculty. The support unit roles are discussed in more detail in this section. Table 6.1 provides examples of student comments on issues related to student support, indicating that support in the distributed learning context may require changes to practice. For example, in the on-campus environment students go to Student Services for individual support, but in an off-campus environment this is determined by the timeliness of visits to centres.

Table 6.1 Student support issues	
Issue	Comments
Student support	If someone could come and talk to us, if there was an adviser that we could talk to about it, computer problems, stress, big workload, maybe we could pop in a mini-bus and head up to Wollongong (Focus group, 30/5/00).
Career counselling	(I'd like to see) a careers person so you could sort of sit down and say well you know, if I do this where's this going to take me (Focus group, 26/10/00).
Learning support	It was quite good; it could have been better if it was scheduled (to meet our timetable) (Focus group, 30/5/00). He came down the day we had a big test - one for English on a Tuesday (Focus group, 1/6/00).
Access to resources	When books are on reserve you can only sort of have them overnight ... I'm only 30 km away but other people are about 50-60 [kilometres] (Focus group, 31/5/00).
Academic advice	That would have been a good point to give to us at the start of it, like the start of 1 st semester, just say look, these...these subjects that you'll be covering this year are very broad, just sort of like an introduction (Focus group, 3/8/00).

6.4.1.1 Student services

Student Services provided a variety of support for students including Counselling, Career Development, Disability Services and Learning Development. All services were provided as an extension of existing services in Wollongong.

The integration of Tertiary Literacies into the curriculum through key core subjects was an initiative the Learning Development Unit was implementing to support all students in Wollongong (Skillen et al., 1998; Skillen et al., 1999). This approach was based on the belief that “all students need to acquire new sets of literacy and learning skills pertinent to their fields of study, and that the acquisition of such skills is most effective when instruction is embedded within the context of study” (Trivett & Skillen, 1998, p656).

The Learning Developer (Arts) had worked closely with some subject developers during the development phase to integrate skills required by students, but this proved to be insufficient support for the student cohort in the first year. He provided face-to-face support through occasional visits to all centres for workshop programs on, for example, essay writing skills, and individual appointments, but some students indicated a lack of awareness of his availability or a lack of suitability of times available (Focus groups, 30/5/00, 1/6/00 and 3/8/00). The Shoalhaven Campus students had access to additional support on a regular part-time basis during second semester, but again the students and tutors indicated a lack of awareness that the support was available. All students were also able to use self-access material which was available for all students on the university website.

Support for students with a disability was provided through individual appointments and coordinated by the Centre Coordinators. External providers made counselling services available at the access centres. Career development services were limited to access to online support in the first year.

6.4.1.1.1 The library

The Outreach Librarian had direct responsibility for planning and implementation of library resources for the South Coast, liaising with other staff members to set up new procedures for the centres. He had been involved for a number of years in the project through many of the committees, and had even drawn on his previous architectural qualifications to assist with some of the internal design of the buildings.

He developed strong relationships with the local libraries that were providing library services for the university students, and worked closely with the new librarian to establish the library at the Shoalhaven Campus. The Library staff worked closely with all involved, documenting and improving procedures for students to access resources for their studies, and they were quick to make beneficial changes when procedures were not meeting the needs of the students.

The Outreach Librarian described this approach in a paper co-written with the researcher and other support people involved:

The Library has adopted a multi-format or hybrid approach to the provision of information resources for SCEN [South Coast Education Network], with an emphasis on networked resources such as full text databases and electronic journals. The planning process drew upon a range of relevant models for the provision of information services for distance education (Pickett & et al, 1990) for integrating information literacy instruction into the curriculum, for developing networked learner support (Fowell & Levy, 1995), for the operation of joint-use facilities (McPherson, Curry, & Humphreys, 1997), and for the development of the digital or virtual library (Fowell & Levy, 1995; Lim, 1996). The networked resources are complemented by core collections of hard copy materials at each of the SCEN locations and a document delivery service from the Wollongong Campus Library. This represents a significant departure from a traditional library collection located at a single campus, and academic staff were informed through the various consultative committees of the implications of this for the selection of information resources to support their subjects. (Albury et al., 2001, p14)

A review of the library processes was held on September 1, 2000 via videoconference with library and university staff from all centres. An apology was received from the Bega library (University of Wollongong, 2000d). The Bega Centre Coordinator expressed some frustration with the system, including difficulties with general loans, access to the reserve collection, loss of materials that had been integrated with the local library collection, and a lack of understanding by local library staff of university borrowing procedures. They expected these issues to be resolved when a new librarian was appointed with responsibility for the university collection, who would receive training from staff at the University of Wollongong.

Other issues identified include insufficient resources and further training needs for staff and students in using databases. The other centres identified problems with document delivery processes and use of the reserve collection, with a lack of communication between subject coordinators and tutors highlighted as a difficulty. The lack of identification cards and problems with mail delivery were also identified as issues and this was noted again in a later report:

Delays have been experienced with the issuing of university ID cards to SCEN tutors and some students, and with the transfer of this information to the Library circulation system. This creates difficulties in accessing the Library Catalogue, using Electronic Reserve materials, and registering for document delivery services. (Wills et al., 2000, p13)

The students at Shoalhaven had accessed their resources at the local community library until the move to the new campus where they shared access to the library facility with TAFE. They expressed their appreciation of the support they received:

Student 1: And the library staff are always very helpful too - don't you find.

Student 2: Yeh - you just sort of walk in and they are aaahhh.

Student 3: I think they were grateful to see someone in there.

Student 2: Yup if you go in there they help you and you say I think I've got enough now and they say I think I've just found something else. (Focus group, 12/3/01)

The students at Batemans Bay also praised the support they had received at their library:

Student 1: The library's great. The [librarian is] great. She's fantastic, we're so lucky with her. She is so brilliant. Today I went in there and I was trying to find something that was difficult to find and she just looked on the computer and found an extra one that was really pertinent. ... We've got all the books that are specific to what we are studying.

Student 2: It's nice having your own library.

Student 3: It is. We're so lucky. It would be really different if we didn't have the library. (Focus group, 30/5/00)

The positive response at Shoalhaven and Batemans Bay highlighted the difficulties the students in the most remote campus in Bega had:

Student 1: It's also a bit inconvenient if you're in the middle of doing something in here [at the centre], then find that you need library materials to do it.

Student 2: It's hard in that if you do want to ...the books out...the librarian can't find it...if you want to photocopy it...it's 15c [per page] instead of 10c [to photocopy at the Access Centre]. (Focus group, 1/6/00)

The decision by the main campus library to initiate an electronic reserve collection meant increased access to resources for these students. Whilst the Shoalhaven students had access to their own library, it was new and had limited resources. The Bega and Batemans Bay centres, with their small collections stored at the local regional libraries, found access was limited not only by the small number of resources but also by the opening hours.

The electronic reserve collection meant that lecturers could provide readings, including single chapters of books, to provide a much wider and more up-to-date resource base for their students (Albury et al., 2001). The Library continued to implement new processes and improved training opportunities for staff and students throughout the year.

6.4.1.1.2 Centre for Educational Development and Interactive Resources (CEDIR)

CEDIR provided support in a number of areas for the implementation year. Audio-Visual Services established the teaching technologies in the centres and supported the use of videoconferencing. The Educational Development group developed and implemented tutor and staff training for teaching and learning. They led the evaluation of the first year and reported progress to stakeholders (Wills et al., 2000) and provided the management and training of staff for WebCT. Flexible Learning Services supported staff in the development of websites and study packs for students.

The Educational Developer (Arts) was also the researcher for this study. Her role included working with subject developers through the initiation and the implementation stage of subject development. She also collaborated with other staff members in CEDIR and the Faculty of Arts to design tutor training and induction programs (see for example, Bell & Lefoe, 1998). Her role continued in 2000 to include support for tutors and subject coordinators through team teaching to develop skills as well as individual consultation to discuss aspects of teaching. In the first few months, she provided a link between the smaller centres and the campus community to resolve problems as they were identified, and contributed to the report to stakeholders in October to establish procedures between the centres (Lefoe, 2000).

The tutors' and subject coordinators' perceptions of professional development needs were invited during the interviews. The tutors indicated a need for practical skills development. They found the Tutor training sessions worthwhile but would like more development related to teaching in the areas of classroom management, preparing and planning the first tutorial, information literacy and technology skills and setting high expectations for students in assessment activities. The subject coordinators also wanted to develop more skills using technology and one new subject coordinator wanted to attend a foundation teacher course on offer at the university.

One more experienced subject coordinator pointed out that, "professional development is useful to me when I get to the point of needing it (Interview, 11/10/00). Another stated, "[you need] to have someone that you can immediately talk to about a problem that comes up (Interview, 11/10/00). He also pointed out that staff development:

needs to be not a half a day but one day a week, for three months, for the sake of argument, in which case, that's all the training you get for that year [or two years]... it's part of your workload and you come out with skills and you're expected to deliver something at the end. (Interview, 11/10/00)

6.4.2 Faculty support

Leadership for the new degree was provided from the Wollongong Campus through the Dean of Arts and the Associate Dean, who was Head of South Coast Project (Arts), and to a lesser extent from some of the subject coordinators. The Centre Coordinators, who supported and encouraged the tutors in the smaller centres, also provided leadership.

Whilst comprehensive planning is vital for any innovation, the key to its success lies with the people involved and their commitment to the success of the implementation, a concept referred to frequently in the literature (Fullan, 2001b; Scott, 1999; Silver, 1998). Levels of commitment for the initiative varied across the institution. At the centres, there was a strong commitment for the success of the venture from the centre coordinators, from most of the tutors, and the students, an indication of the primary importance of the initiative for the local communities. Many tutors worked beyond the required hours to ensure this occurred, acknowledging their role as the face of the university, as reported in Chapter 5.

In Wollongong, there was also a strong commitment to the success of the centres, but it was of secondary importance to many of the people in Wollongong who were primarily concerned with their roles at the Wollongong Campus. Communication and relationship building between these disparate groups was a challenge in the planning stage for those in leadership roles and this continued through the first year of implementation. For Fullan (2001a) good leaders create leadership at all levels of the organisation and he contends that is necessary for change to be sustainable. The leadership and support roles are discussed in the following sections.

6.4.2.1 The Dean of Arts

The Dean of Arts played a major leadership role in the implementation of the South Coast degree. She identified four major strategies for success in the implementation of the new Arts degree (Interview, 21/1/00). The first was to overcome the notion of some members of the faculty, who were not involved in the program, and the concerns of some students, that the degree was 'second rate' and equivalent to a distance education degree.

She felt that this could be overcome through more effective communication within the faculty and visits to the centres, "not only to be able to talk to the people and ask what they want but also to build up credibility in terms of that we are serious, we are here to stay" (Interview, 21/1/00). The second strategy was to ensure that the students and the tutors have a good experience through interactions with the subject coordinators, though she thought that this would require convincing, "staff here that this is part and parcel of what they do" (Interview, 21/1/00) and supporting them through the process. The third strategy was to ensure infrastructure support, "both of the technical kind or materials kind and a human resources kind" (Interview, 21/1/00).

The final strategy was to ensure that the South Coast was seen as an, "ongoing activity of the university which deserves the attention of the various layers in the university". She expressed concern that people would see the project as complete at implementation:

I am a bit concerned, from some feedback from various sides ... that [the project] is seen to be ... more or less completed, ... whereas what we are thinking is well we've had a development stage we're running with the implementation now. For God's sake the building isn't even finished. (Interview, 21/1/00)

This view of implementation is also expressed in the educational change literature (Fullan, 2001b; Scott, 1999), where institutional leaders may perceive that once implementation is started support is no longer required. In fact, poor implementation support for an innovation is often cited as the reason for failure and can be the most difficult aspect of the change process (Scott, 1999, p49). The Dean recognised this need to provide support and continued to be visible in her support for the venture throughout the year. The Dean visited the centres regularly and met with the students, tutors and centre coordinators. One critical visit entailed meeting with students enrolled in a subject at Centre 2. The students had repeatedly expressed their concerns about the subject and the course in general to the tutor, which meant constant disruption to the tutorials. The tutor stated:

one person said every week, 'this is boring, why do we have to do it'. So that would open up a discussion every week on why we had to do it, which was really tiring. I did not want to be an apologist for the university. (Interview, 7/9/00)

This student and the tutor had had a personal conflict before their involvement in the Centre and this may have contributed to the constant challenges in the tutorial. The tutor described the students as ready for a confrontation:

They kept trying to tell me that the workload was equivalent to second year work and the people designing the course had made a terrible mistake ... They really thought it was too tough, the workload of all the subjects ... (Interview, 7/9/00)

In meeting the students, the Dean was able to acknowledge their concerns and address them in a supportive way, defusing the situation entirely. The tutor discovered that the leader of the group did not speak up during the meeting: "The person who had been out for her blood, like ready to really rip into [The Dean] and tell them how to devise a true first year Uni course, did not say a word" (Interview, 7/9/00). The tutor was impressed with the way the Dean dealt with the problem:

I thought that [the Dean] sounded respectful, in saying that she was aware that there were problems, that people were feeling the burden of coming back to learning. The students just seemed to be floored. I took that as a good thing, as not defeated. Well maybe a little bit and it was hard to speak up, because then there is that sense of them being, you know, the ones in power, the head honchos, all that stuff, the power from Wollongong were coming. When they arrived, the critics losing their power, but they did not seem to feel powerless, they seemed to take on that [The Dean] and [Associate Dean] were aware that they had problems, and that none of us were unaware of that. As I had been trying to say to them, there is not this, them and us, we are all working towards the goal of getting a degree. We are on your side and to stop seeing it any other way. And it is tough. (Interview, 7/9/00)

The Dean had the authority to resolve the conflict and by exercising her power appropriately, she demonstrated that she acknowledged the concerns of the students. She was also able to demonstrate that she valued and supported the tutor. The Dean also supported the South Coast initiative at the Wollongong Campus through attendance at the South Coast Project (Arts) meetings. She took every opportunity in public forums and privately to acknowledge the work of those involved.

6.4.2.2 The Head of Program

In Wollongong the Associate Dean of Arts, (Undergraduate Studies), who had been the Head of program for the South Coast degree, continued to provide leadership in this role and provided much-needed support for all involved through liaison with the centres and the tutors. Before the start of session she expressed concerns that ongoing support would not occur and that the executive of the university would move on to the next challenge. She stated: "Given that the money is tight and that its unlikely that [there will be] any extra [money] [then] new activity will depend upon a huge amount of goodwill [from the academic staff]" (Interview, 22/1/00). She was very aware of her role as leader and pointed out that: "The first year will be about listening" (Interview, 22/1/00).

Staff and students appreciated the Head's frequent visits to the Centres and she was quick to resolve any difficulties with the learning program that she could. However, her power was restricted since the academic staff worked within their own programs, a difficulty with an interdisciplinary degree. Staff reported to their program heads and the Heads made workload decisions, including allocation of time for subjects taught on the South Coast.

The Associate Dean reflected on her role as head of program during the planning stages to inform her practice during implementation She identified some rules of thumb through the change management literature (Kouzes & Posner, 1987; Ramsden, 1998) that mirrored her leadership practice:

- Challenge the Process - Search for opportunities, experiment and take risks.
- Inspire a Shared Vision - envision the future; enlist others.
- Enable others to Act - foster collaboration; strengthen others.
- Model the Way - set the example; plan small wins.
- Encourage the Heart - recognize contributions; celebrate accomplishments. (Albury, 2001, p27)

She discussed further her interpretations of the practices and her leadership role. In addition to these she noted that her support group of the Dean, the Project LEAD coordinator, the Educational Developer (Arts), and a senior university administrator “enabled the Head to act” (Albury, 2001, p28).

She highlighted the challenges she faced within the faculty:

These four provided a much needed reality check in an atmosphere of continuing neglect, to the point of denial, of the project within the faculty and hence recurrent waves of concern among the subject developers. My supporters offered a safe place for me to express my doubts and despair and receive reassurance and reminders about how far we had moved. ... If I was going to lead change in an atmosphere that frequently lapsed into negativity and resistance, then I needed to have my standard responses challenged in a safe space, to be strengthened, and to celebrate my accomplishments. (Albury, 2001, p28)

As the implementation proceeded, the Head worked hard at developing relationships with staff, between those at the main campus involved in the South Coast degree and at the centres. She also provided leadership on campus as the development group continued to meet to discuss progress and challenges. She commented:

it was important to support and encourage academics who were working alone with very little time release from their other teaching duties. In an education sector that today is noted for low morale, I tried to make the project work a place of reward, not an additional burden. (Albury, 2001, p28)

She encouraged the first year subject developers to provide insights on aspects of teaching and learning to assist those developing subjects for the subsequent years.

Each semester she took the Arts tutors at each centre to lunch or dinner, ensuring that they met each other since some rarely saw each other at the centres. She encouraged them to network with tutors at other centres as well as at their own. She met with them individually and was available for discussions on all issues related to the Arts degree. She made it clear that she valued them and their input to improvements in the subjects. She also liaised with subject coordinators and other groups on campus to encourage them to provide the tutors with the support they required for their teaching. The Head also provided academic advice for students in her regular visits to the Centres, and through email and telephone contact.

6.4.3 Centre support

6.4.3.1 Centre coordinators

The Manager, Shoalhaven Campus, had management and leadership roles and supervised the staff at the access centres and at the Shoalhaven Campus. He reported to the Pro Vice-Chancellor (Academic) in Wollongong. He was responsible for: “ensuring that all the policies and standards of the university are reflected in activities and practices at the campus” (University of Wollongong, 1999a (1) Appendix 1, p19). He took a ‘hands-off’ approach to management at the remote centres however, and although he was involved in marketing activities in the locality of the centres, he rarely visited the centres (Interviews, 12/3/00, 31/5/00).

At the Shoalhaven campus, the tutors reported little interaction with the Manager. Indeed one of the students indicated that he was more interested in the Commerce students and that the Arts students had little interaction with him other than when they passed the football around before lessons, “then you’d get into trouble for messing the garden”. The student also talked about the Arts’ students teasing the Head: “...[laughs] only contact we had was when we nicked his car spot all the time [laughs]” (Interview, 6/3/01).

The Head was involved more in the management of the Campus, rather than the day-to-day problem solving, which was the responsibility of the Professional Officer, the administrative assistant, or the tutors, all of whom the students were quick to praise for their support.

The access centre coordinators had no preconceptions of their roles as they were still establishing them and both demonstrated strong leadership roles. They had draft role statements which covered a multitude of areas from liaising with all groups involved in Wollongong, including teaching and administration, to “creating and fostering a productive teaching and learning environment”, (University of Wollongong, 1999a Appendix 3, p22), as well as nurturing relationships within the local community. They moved quickly from four days per week to full-time employment in the centres.

The centre coordinators took responsibility for all tasks that needed to be done. They had no staff to whom they could delegate. They handled everything from repairing blinds in the computer room, to fixing printers that would only work if the paper tray was pushed in at a certain angle, to arguing with tradespeople about unfinished work, especially about issues with the security system. At the Batemans Bay Centre, the Coordinator dealt with an ongoing problem with fumes in the carpets, to which some students reacted. She was tenacious in her pursuit of this occupational health and safety problem, which required a variety of efforts to resolve.

The coordinators became confidantes to tutors and students and provided everything from counselling to learning support as well as academic advice, communicating with Wollongong when extra support was required. The students and the tutors praised them considerably and there were only positive comments from either group about them. They were advocates for the students and the tutors and constantly worked long hours, providing their home telephone numbers to both groups for assistance.

6.4.3.2 Technical support

The university employed a full time information technology technician (employed by ITS), and an audiovisual technician (employed by CEDIR) based at the Shoalhaven Campus, with responsibilities for maintenance, support and training in use of equipment at the campus and at the access centres.

Students at the Shoalhaven campus appreciated the support available from the IT and AV technicians, but indicated peer support was extremely valuable for the 'just-in-time' support they often required (Focus group, 30/5/00, 12/3/01). The students at the other centres turned to the centre coordinators, the tutors and the other students for support, as both technicians were based at the Shoalhaven Campus and could only visit infrequently. Several students identified peer support as important, but one of the coordinators expressed concern about a student who was so busy helping others that she found it difficult to get her own work completed in the computer laboratory. (Interview, 29/3/00)

6.4.4 Institutional support

Institutional support for an innovation is reflected in the rewards and incentives systems for the staff within the institution. In addition, Ramsden (1998) suggests that good leaders find other ways to recognise a commitment to teaching where the reward system does not. For the implementation of the new degree, the incentives and deterrents for the tutors and the subject coordinators varied.

For the tutors there were a number of rewards and incentives, as indicated in Table 6.2.

Employment and the possibility of further employment, in an area with high unemployment, were potential rewards. Those who were currently pursuing further qualifications were rewarded through access to the research facilities of the university. The satisfaction of teaching in the centres was also an incentive for the tutors. The deterrents included their perceptions of workloads, which included many hours of unpaid work, feelings of isolation, insufficient training, a lack of recognition within the pay structure for the level of skills they had, and the lack of job security in sessional work.

Table 6.2 Incentives and deterrents: tutors		
Incentives	Post graduate study benefits	Access to Library and resources when enrolled at other institutions.
	Teaching satisfaction	There were a couple of students in particular that actually sent emails to me at the end saying 'thanks a lot, I really enjoyed it, I got a lot out of it, it was really valuable'. We don't get that sort of feedback all the time, students sending you a little thankyou email at the end of a subject (Interview, 6/9/00). [S]ome of the best marks came from here, I felt so validated (Interview, 7/9/00).
Deterrents	Perceptions of workload	There was quite a range of students so responding to their work was a significant amount of marking (Interview, 6/9/00).
	Isolation	It was tough and became clearer towards the end. It would have been great if it was not so hard. [Another tutor] and I were feeling cast adrift from the breast of Wollongong (Interview, 7/9/00).
	Tutor training	The coordinators are very conscious of the training needs of the tutors eg. the equipment, computers, access centre security requirements, and personnel requirements and so on. Most of this is done outside the time allotted for tutoring (Centre coordinator, personal communication, September 6, 2000).
	Financial incentives	Sessional staff are paid at tutor rates with little recognition for skills and experience.
	Lack of job security	I've been teaching here in modern languages for five years and at the uni for nine years. Various casual and fixed-term contracts, but I think that's all about to end. (Interview, 6/9/00) The faculty norm was that the need for tutors was determined from student enrolment numbers and positions were offered 1 or 2 days before session started, or in some cases after session started. The contracts last for the session only (informal discussion with Associate Dean).

For the academic staff in Wollongong incentives included tenure and promotion, peer recognition for their new skills, as well as job security for those seeking permanent employment, as indicated in Table 6.3. The deterrents included insufficient time or funding for preparation of material and learning new skills, the impact on workloads of those involved, the time taken away from research and the lack of recognition for those involved.

Table 6.3 Incentives and deterrents: subject coordinators		
Incentives	Promotion and tenure	Successful implementation could be used as an example of staff commitment to teaching in applications for promotion and tenure.
	Peer recognition	Within South Coast Project (Arts) group and in programs provided support for other lecturers for on-campus subjects using flexible teaching methods – recognised expertise, for example in using WebCT.
	Job security	Permanent positions funded from South Coast funds
Deterrents	Insufficient financial incentives or workload recognition	<p>... it was prepared under far too much pressure and that the university expected far too much for far too little from those involved in it. (Interview, 6/9/00).</p> <p>Departmentally, I guess everybody wanted to pass the buck, nobody really wanted to take this [subject development] on. Because everybody viewed it as being more work, with no particular goodies at the end of it, either for us or for the person or department in general (Interview, 11/10/00).</p>
	Impact on workload	<p>The workload is there having people in tutorial situations anyhow, but the workload was a lot heavier because of what I thought was the added teaching and troubleshooting that went into my relationship with [South Coast tutors]. (Interview, 11/10/00).</p> <p>No, we were expected to co-ordinate it as we would a normal subject, but I think will account for the reluctance to keep offering subjects. (Interview, 6/9/00).</p> <p>[T]he new workload model concentrates entirely on what is happening, basically here [in Wollongong]. We allocated a notional fixture of an hour a week to his workload to accommodate [South Coast subject], which meant that he got a lighter load this session. (Interview, 6/9/00).</p>
	Time away from research	<p>[A challenge is] writing the lectures. I often wonder if in fact we need to do this because, by the time you are finished, [they] are, nothing less than substantial articles. (Interview, 6/9/00).</p> <p>Getting grants, publishing books, that's really what's rewarding... (Interview, 11/10/00).</p>
	Lack of recognition	[T]hey have used the emotional energy and the physical energy and the intellectual energy of a number of very good academics [in] the recent few years and the next few years and they are unable to even find a way of rewarding them. (Head, interview 6/9/00).

The deterrents did not outweigh the incentives for most of those involved, especially for the students and tutors located at the Shoalhaven Campus and the access centres. They acknowledged the need for improvements but accepted that any new initiative would have teething problems. Overall, they displayed a positive outlook for the future of the degree. One tutor stated: "I hope further down the track, with Bega, it's a success and continues and strengthens". During the focus groups the students commented:

Student 1: I just think that it's a fantastic opportunity here to be able to learn, it's just amazing.

Student 2: Yeah, it's great. I love it too. We're very lucky really, we've got it good.

Student 3: And we've got really good tutors, we've got a really good course.

Student 1: We do like it, really. It's great. At the end of third year, we'll love it [more].

Another group of students stated:

Student 1: Just want to reiterate that regardless of all the little problems and things...[it's been] very positive.

Student 2: I think we're lucky that we're just small numbers with one tutor, we get extra, if there was thirty or forty of us here...

Student 3: You listen to the lectures [from Wollongong]...it's not like...people ask questions....no discussions like we have.

Student 2: In a way we're lucky, lucky that we've got this...

Student 3: It's one hook for this area - the fact that I didn't have to move to study...and I didn't want to move.

6.5 Administration processes

The Academic Registrars Division (ARD) worked closely with the faculties to provide support for student administration. They had responsibility for enrolment, orientation, the issuing of staff and student cards, timetabling, examination management, transport concessions and graduation. Personnel and Financial Services were responsible for other administrative areas, including payment of tutors. The Faculty of Arts also provided some administration support for the South Coast degree.

6.5.1 Student administration

The first few weeks of any venture is bound to have initial problems, and the administration of students at the new campus and access centres proved no exception.

As the Shoalhaven students were still located at the temporary campus at Graham Park, the administrative staff had a direct connection to the administrative system through the microwave link and as they were familiar with many of the procedures in place at Wollongong, issues were resolved quickly. However, the centre coordinators, tutors and students at the access centres did not have this advantage and it became obvious that tacit knowledge of the systems in Wollongong had not been made explicit to the people at the more remote centres through procedural changes. The staff had a number of difficulties in the first few months with learning the systems in place at Wollongong, and many of the procedures in place for Wollongong simply did not work at the remote centres.

Although both centre coordinators had been through orientation programs for computer-based administration of the sites, the system in Wollongong was having its own implementation glitches, with the result that remote logins were not working, and therefore the Batemans Bay and Bega centres were unable to access the systems. They could not resolve problems directly themselves but had to rely on others at the Wollongong Campus to make changes to student enrolments.

However, these people were busy resolving issues for students on campus. Both coordinators identified the lack of procedures and institutional policies as inhibiting implementation at the start of session.

The new Student Management Package (SMP) that allowed web-based enrolment was implemented in 2000, creating some difficulties for students and staff at all campuses. The South Coast students were enrolled at their local centres, although in previous years the Graham Park students had travelled to Wollongong to do this. However, the system did not include a field for location. When the enrolment forms were sent to the Wollongong Campus there were errors transferring the information to the new system. This resulted in students being enrolled in the wrong subjects or not enrolled at all. This was especially problematic for students who enrolled after the initial orientation day.

In the first few weeks of first semester, some students were not able to access their WebCT subject sites because they were not enrolled correctly or because they had not received their student identification cards, which provided a barcode needed to initiate their computer accounts. There were further difficulties encountered as the need for cross-unit communication was required to resolve some issues. For example, access to WebCT required four steps: an identified 'student' number on the SMP, (from ARD), gaining an identification card, (ARD posted to the Centre Coordinator), activating an email account, (from a unit in ITS or the technician at Shoalhaven Campus), and enrolling in the relevant subjects on WebCT (another unit in ITS or subject coordinator).

In the second semester, students were able to use the new web-based enrolment system, Student online Services (SOLS), allowing them to enrol in subjects or change their enrolments from wherever they had computer access. Unfortunately, this also led to similar problems as students enrolled in the wrong subjects or at the wrong locations because of similar subject codes and their lack of familiarity with the system:

Well I got lost in the system so...I was enrolled at Nowra. So I said well I'm not going on there [WebCT] until I'm on there...which was a bit stubborn and cheeky...and a good excuse, just hide in there...well I did go on and read the stuff, but I thought well 20 people have just answered exercise 1... (Focus group 2/10/00)

Many of the problems associated with access to subjects were resolved through the provision of access to all WebCT subjects to the centre coordinators. They were able to fix the problems, or provide temporary student accounts for those waiting for student ID cards. Information in the system was often inaccurate in the first few weeks and a report from one centre coordinator reported some discrepancies between SMP and the actual subject enrolments at the centre. Students were later able to confirm and change their enrolments on the SOLS website, resolving problems as they arose. In addition, some students were charged Student Union Fees at the rate for Wollongong which was considerably higher than that for the access centres, providing a further challenge to clear up discrepancies, and in some case retrieve money overpaid to the university (Centre 2 Coordinator, personal communication, March 12, 2000).

Experiences of administration related to teaching also indicated the need for better procedures. Timetabling, resource management, and examination procedures were key issues identified by the stakeholders as problematic. Improving communication among the centres and with subject coordinators in Wollongong was highlighted as a necessity.

The Timetabling Officer was responsible for the whole university timetable, as well as the South Coast timetable. This person had to coordinate classes across the centres with limited teaching spaces, with the use of videoconferencing, and the availability of subject coordinators on campus. The Head of Campus at Shoalhaven, who had learnt to work around the processes in Wollongong in his years at Graham Park, found that much of this was out of his control as the new processes were established. He was aware of the needs of the local students and, with small student numbers, was able to accommodate them. For example, he ensured that Arts classes were held during school hours to accommodate the needs of those with parenting responsibilities. One subject had been timetabled to start at 5.30 pm on Friday night, and this was changed to meet the needs of local students.

The Bega centre also tried to accommodate the needs of students as some were travelling up to two hours each way to reach the centre, so classes were rescheduled and they were held close together over two days. This led to problems in Wollongong where, for example, the coordinator of one subject worked part-time and taught at another university on the day the class was held. It also meant that some subject coordinators who intended or decided to videoconference with their students discovered that they would have to do this two or three times in order to talk to all groups because of the timetable changes in the local centres.

The Batemans Bay coordinator also reported the need to set up procedures for the delivery and purchase of textbooks, access to the Student Representative Council second-hand bookshop, and for the provision of payment and accounting procedures, which assumed all transactions would be through credit card facilities. The Bega Centre also faced these problems, particularly with provision of payment since many students did not use credit cards. They also had similar difficulties with the lack of systems in place for textbook purchase and their late arrival, and the non-arrival of some subject resource booklets, where the lecturer had not realised the need to order them separately for the South Coast students. One set of student books for Batemans Bay were sent to Bega, again delaying the students' start with the subject material, as the mail system was also found to be inefficient. One centre coordinator resolved the problem by paying for all textbooks on her personal credit card and the students repaid her over the next few months.

Examination processes also tested the system. With few final examinations in the Arts subjects, this was not a major issue, except for one subject, where the examination question failed to arrive at one centre. Eventually the tutor at Shoalhaven Campus faxed a copy through to the centre and the students took their exam several hours later than the rest of the cohort.

The Head of the Shoalhaven Campus was concerned that staff in administration in Wollongong ignored the South Coast, despite some people being employed through these funds:

They stand on top of the administration building and all they can see down to the highway and over at Northfields Avenue and that's the universe they don't worry about anything else. ... There are people up there I have never met and yet they have been employed by South Coast money. (Interview, 26/3/00)

The Head did indicate his concern at the impact of change: "We had things flowing nicely for seven years. I don't know what it was but things came along and upset the apple cart. But I have to try and get it all back now" (Interview, 26/3/00). He had previously resolved any problems himself, for example, he picked up the textbooks and subject resources in Wollongong each semester and sold them directly to the students.

6.5.2 Staff administration

The tutors were disadvantaged by their distance from the campus, with late payments due to incorrect forms or incorrectly filled-out forms. The centre coordinator stated:

A few of the problems with pays were terrible, no procedures, tutors weren't told the procedure, I've been given incorrect forms. They were given incorrect forms, just such a simple thing and should have taken a few minutes on the first day and then they were on the payroll. (Interview, 29/3/00)

The tutors also had difficulty with their staff cards needed to initiate email accounts. Without identification cards they could not access the online components of subjects or borrow from the library. The staff card issue was problematic throughout the year, and a personal email from a tutor in December 2000 announced that he had finally received his staff card when the session had finished. (He had found a use for it however as he had been arrested in a logging demonstration and had used it for identification purposes, though fortunately no conviction was recorded against him). Another tutor, who had taught in both sessions, indicated that he still did not have a staff card by November 2000.

ARD made a substantial effort to improve their processes and were quick to respond to the needs of the staff and students. In the October report to stakeholders, The Academic Registrars Division (ARD) report concluded:

As student administration issues or problems arose, ARD addressed them in the same manner that Wollongong campus issues are addressed. A Student Administration Officer has also been designated as the South Coast liaison to be the first point of contact for the Campus/Education Access Centre Coordinators. (Wills et al., 2000 p16)

ARD made changes to the web-based system to include a location field when students selected subjects, resolved the technical problems so that centre coordinators could update the student database, and provided cameras and software to produce identification cards locally. The centre coordinators worked with the Unicentre Bookshop and the Students' Representative Council at Wollongong to identify procedures for textbook purchase and handling finances.

The only report from Personnel and Financial Services stated that they had “ been operating as an extension of existing Wollongong operations” (Wills et al., 2000 p16). They did not address any of the issues experienced by the stakeholders on the South Coast in the report, and perhaps the issues were commonplace at the Wollongong Campus as well.

6.5.3 Faculty of Arts administration

Within the Faculty of Arts there was a half-time administrator who supported the South Coast Project (Arts) group, the tutors and the Head. She also liaised among the students, the tutors, the subject coordinators, and the Head as the year progressed, to improve communication. To overcome difficulties with the tutor pay forms, she organised for the tutors to sign the forms and completed them herself before submitting to Personnel for payment. She also had many other roles, from organising tutor employment and training to negotiating with the Printery to print workbooks.

6.6 Infrastructure

This section describes the infrastructure put in place to support the learning program. It provides details about the teaching spaces and their official openings, the library facilities, and the technology network.

6.6.1 Teaching spaces

Despite the years of planning, not all of the facilities were completely finished when the semester started in 2000. By the first day of the university session, the Batemans Bay Centre had been complete and operating for some weeks with a tutor training session conducted there in February 2000. However, the stress of the first day became obvious quickly when a forgotten muffin in the microwave triggered the fire alarm. The building was evacuated while awaiting the Fire Brigade. The students and staff found themselves with a memorable first morning, sitting out in the sun for the first hour, providing an opportunity for them to get to know each other in an informal setting (Personal communication, Coordinator, February 2002). The Centre included four teaching spaces of varying sizes, facilities for the tutors and a computer laboratory in the university section.

Although the Bega facility was complete for 2000 not all the infrastructure was in place, and in the first week students and staff worked around the tradespeople as they finalised the facilities for using technology such as computer laboratories and videoconferencing (Interview, 31/5/00). The rooms in the building were small, with tutorial rooms only comfortably seating eight people. The blinds in the computer laboratory were out of reach, resulting in reflection on the computer screens, which indicated a design problem with the building. There were no facilities for the tutors, which meant preparation and marking occurred in the computer laboratory with the students. Private interviews with students had to be held in the coordinator's office, or more often outside the building or at the local coffee shop for privacy.

The Shoalhaven facility was not ready for the start of session in February, so the students started the year at the much smaller interim Graham Park Campus. This required the students and tutors to drive to Berry, about twenty minutes north of Nowra. There were no library or food facilities. This combined with the limited space available for socialising, meant that most came to the campus for tutorials and left immediately afterwards (Focus group, 3/8/00).

The new Shoalhaven facility was ready on May 8, 2002. The Shoalhaven Campus was much larger than the Access Centres and included a lecture theatre with fixed seating for 50 people, three teaching spaces for about 30 people and two smaller tutorial rooms. There was a tutor preparation room and individual office space for permanent members of staff.

The lecture theatre was also used for videoconferencing but the inflexibility of the seating meant that the students could sit out of sight of the camera and could not communicate readily with the lecturer. The distance of the students from the camera meant the lecturer could not see their faces. The smaller teaching spaces could also be used for videoconferencing, with more flexible seating arrangements. Telstra, the telecommunications provider, was still unable to complete the communications infrastructure for videoconferencing and to provide Internet access until the working day before the move. This resulted in CEDIR staff and the IT technician spending their weekend setting up the videoconference equipment and the computer laboratories for the first day of classes.

On the previous Friday, removalists had arrived at the Graham Park Campus at 7.30am, and packed and moved all of the equipment to the Shoalhaven Campus. However, they did not set up the furniture in the teaching spaces with the result that staff and their spouses spent the weekend setting up the classroom furniture and cleaning up the section in time for classes on Monday morning. The only evidence of their hard work was a pile of computer boxes sitting in the entrance as the students arrived. The Head expressed his concern that the cleaner had not removed these early that morning. However, this appeared to be an indicator of a communication problem, as the Buildings and Grounds Unit at the university would ordinarily have managed not only the arrangement of the classrooms, but also the cleanup afterwards. As the students walked into the building for their first day, they looked suitably impressed with the new facility, especially after the cramped space they had been experiencing at Graham Park. A tutor identified the feelings of the students about the move to the new campus: "They were very excited ... A lot of them said it made them feel like proper uni students, and that they didn't realise how much it had actually affected their attitude and their motivation" (Interview, 6/9/00).

The official openings of each of the centres highlighted the political importance of each centre and its importance to the local community. The NSW Minister for Education and Training officially opened the Bega Education Access Centre on July 21, 2002, with the Federal Member, who was representing the Federal Minister for Education, Training and Youth Affairs, also in attendance. The initial date for the official opening was in May, but this was changed to July to ensure that the state minister could attend, an indication that the region was a sufficiently important seat politically that the minister himself attended, since it was a state and federal marginal seat.

Representatives from all the partners attended including the Acting Vice-Chancellor, and the Director of the Illawarra Institute of Technology. Students and tutors attended the opening to celebrate the occasion. The University of Wollongong's press release indicated that the Federal funding for the initiative was "a clear demonstration of the ... ongoing commitment to the expansion of education on the South Coast" (July 20, 2002). On March 31, 2002, the Mayor of the Eurobodalla Shire Council officially opened the Batemans Bay Library and Education Access Centre. The Council had organised the opening, and the focus was more on the library than the Access centre as evidenced by the opening address by the State Librarian who spoke about the importance of the venture to the community. The Vice-Chancellor of the university attended, but was not a member of the official party. Many of the university staff involved in the project also attended the opening, including the Pro-Vice Chancellor (Academic), Associate Dean of Arts and representatives of various support units. Students and tutors also attended. The Associate Dean of Arts and the Arts tutors celebrated with lunch at a local restaurant.

The official opening of the Shoalhaven Campus was held on June 2, 2000 organised by the central administration in Wollongong. The Federal Minister for Education had agreed to open the Shoalhaven Campus. Onsite police security meant that only those with official invitations were able to attend the opening. It also prevented the students, who had not been invited, from attending the ceremony as well. There were about twenty students from Wollongong and Shoalhaven staging a protest about the impact of GST at the entrance to the new campus, but they did little to disrupt the ceremony. The Minister was unable to attend at the last minute and the local Federal Member conducted the ceremony before a crowd of approximately four hundred people. She made personal references to, and acknowledgement of, the hard work of all those involved including the Local Aboriginal Land Council, and the University Development Officer, and, most importantly, thanked the previous Head, now entitled Manager, Shoalhaven Campus, for his sheer determination and hard work in support of the campus development. Representatives of all the partners attended as well as the local and state government members. The executive of the university attended, with many of the subject developers for the Arts degree and two lone students, as representatives of the student body.

The Arts students commented on this when asked if they had anything to add to the focus groups: "I didn't know it was on until two days before it happened and it's like, oh, we weren't even invited". Another added, "I found out in the local newspaper". The students indicated they were disappointed that they were not involved.

6.6.2 Library facilities

The library facilities varied according to the size and location of the centres. The Bega library resources were located two blocks away in the community library, contracted by the university to provide services for the students. One student commented: "It's a bit inconvenient if you're in the middle of doing something in here [the Access Centre], then find that you need ...library materials to [complete it]." The Bega library was not computerised in early 2000 and the small community library lacked the funds for such improvements.

For the university this meant not only providing funds to upgrade the facilities, but also working with the local librarian to upgrade the skills of staff. Initially the university collection was housed with the general collection, and borrowing had not been restricted to university students, resulting in other members of the community borrowing some of the key texts. They were housed later in the year in a separate collection to address this issue. The new Batemans Bay library, which was part of the Access Centre, had been completed and operating since late in 1999. The Centre Coordinator had worked there before her employment at the university so she already had good relationships with the library staff. The new facilities included an allocated space for the university collection within the library collection, and computer terminals to search for resources.

The library at the Shoalhaven Campus was already organised and functioning well when the university building opened as it was a shared facility with TAFE and so had been operating since February. Most books were already on the shelves in the large spacious room, and the librarian and library technician were ready to assist the students. The facility included two small rooms for students to book for group study as well as individual workspaces and a computer laboratory, the after-hours access centre. On the first day one of the students enquired about library usage for her sister, a third year student enrolled in Wollongong.

The librarian confirmed she could use the library facilities so she did not have to travel to Wollongong. There was also an enquiry about hours of operation for local students and there was a positive response about working all night if needed. The library hours were still flexible at this stage, to ensure that the hours set would meet the needs of the students.

6.6.3 Technology networks

Educational technology was highlighted in much of the planning as an important component of the implementation on the South Coast to support teaching and learning (University of Wollongong, 1995, 1997b). Planning for the network had been underway for several years, however there were ongoing difficulties because of problems in telecommunication service provision beyond Nowra by the provider, Telstra (Interview, Manager of Technical Support Services, ITS, 7/2/00).

A microwave link provided network infrastructure access to the Shoalhaven Campus and ISDN lines provided this to the Access Centres. The use of ISDN lines limited the strategies that could be used for teaching and learning since variations in the bandwidth provided by the technology did not support software such as Microsoft NetMeeting, which would have allowed synchronous chat and sharing of files across the network, or web-based video. The technologies available at the sites included computers, videoconferencing, audio and videotapes, and telephone as well as other audiovisual equipment such as overhead projectors and presentation equipment. The computers provided access to email and the Learning Management System (WebCT). All students and tutors were provided with email accounts, which required information on the staff and student identification cards to initiate them.

6.6.3.1 Computer technologies

All centres had computer laboratories and included 24-hour access facilities, though this was not available to the students at the Shoalhaven Campus in 2000 because of problems with the security system and concerns about student and equipment safety due to the isolated location. The Shoalhaven Campus had three laboratories, with 79 computers in total, including the after hours access centre, located within the library building and used during working hours by students.

Batemans Bay and Bega had one laboratory each with 31 computers each, which were used for classes and student study during the day and were available for after-hours access. Though no records of usage were kept, the Centre Coordinators reported that they were in constant use (Wills et al., 2000). The students at Bega commented positively about after-hours access as many did not have a computer at home, indeed some were not on the electricity grid. The students, tutors, and centre coordinators identified three main issues with computer use: access, technical support and skill development. Table 6.4 identifies responses from the stakeholders on the impact of the use of computers.

Table 6.4 Issues with computer use	
Issue	Comments
Access	I had a lot of trouble even finding out what my password was... (Interview, 27/10/00).
	Student 1: And getting their account numbers and all this nonsense. That was a real shemozzle. They didn't work. Student 2: Some people forgot their passwords. Student 1: Oh God - I think it's for the birds this computer thing myself (laughs) total waste of time and money (Focus group, 12/3/01).
Technical support	The printer only works if the trays are pulled down 0.5 of a mm so its fits nicely. I don't know why [we] have two printers that couldn't print. I spent endless hours there. (Centre coordinator, Interview, 29/3/00)
	It's really frustrating especially when you go in to print something. (Focus group, 30/5/00)
	...none of us here knew that the pick-up time for booting up the computer was too long (Interview, 7/9/00).
	Very often just when you really need this technology it just doesn't happen to be working... I had to email [an assignment] to my tutor and I emailed it I think six times through various means and eventually she got all six. ... Often the server has been down or I haven't been able to log on, but it seems to be getting better, or maybe it's just that I am getting better at it too. (Focus group, 30/5/00)
Skill development	Students often arrange group work in the computer laboratory especially for collaborative projects and assignments. They are supportive of each other and try to help solve problems and share resources (Centre coordinator, personal communication September 6th, 2000).
	... at home their computer use, by necessity, really improved, but e-mailing was still not an automatic thing to do (Interview, 7/9/00).
	We had a short [introduction to computers] before we started doing any work really, so it was hard to relate it. (Focus group, 1/6/00)
	I love (the computer) at home now because my kids turn to me to fix things, whereas they taught me how to turn it on and get it going... Six months ago I was almost computer illiterate, and now I'm the one that fixes everything on the computer. It's so cool. I love it (Focus group, 30/5/00).
	Most of us have not had previous experience and a lot of the stuff was done on computer (Focus group, 1/6/00).
	I was the only one in the class who had a clear understanding and previous experience using computers for word-processing, and Internet use. Thus, the other students in the class were at a clear disadvantage and spent hours more trying to complete their assessment tasks... I feel that an introductory class on computer use is necessary as a part of this degree (Subject A survey).
	...Things like using databases. I've just started to scratch the surface now and it would have been really good had I had those skills earlier (Focus group, 30/6/00). I was impressed that I could learn it off the screen (Focus group, 30/6/00).
	I was in the classic terror mode and did not really understand (Interview, 7/9/00).

Students at the Shoalhaven Campus had access to more computers on campus and, according to the IT technician, many students also had access at home, though some indicated that they did not necessarily have Internet access at home (Wills et al., 2000). At Batemans Bay, the students who attended the focus group indicated that they all had access to a computer at home, whilst the students at Bega indicated that none had access at home. A Batemans Bay tutor supported this view: “We have gone from one in seven having a computer at home, or maybe it was two, to I think five out of the six have got computers at home” (Interview, 7/9/00).

There were initial technical difficulties with equipment in the computer laboratories. The printers had constant paper jams and the card readers attached to them also failed frequently; five monitors failed in one laboratory in the first semester. The network authentication system in one access centre was extremely slow, creating frustrations for the new computer users who believed the problems were related to their inadequacies and so delayed reporting it for several months (Wills et al., 2000, p12). Students also had difficulty initiating their email accounts, often due to problems with enrolment and with receiving their identification cards, which had barcodes required to set up these accounts.

The development of computer skills was an important issue for students and tutors. Many of the students who were school leavers at the Shoalhaven Campus had the necessary skills, but the mature-age students at the campus and at the centres indicated that there had been a steep learning curve for them that placed an additional burden on their learning. They reported that the computer skills workshop at orientation did not prepare them sufficiently for the skills they required in the course. A Batemans Bay tutor indicated that students had gone, “from Kindy to Year 10 in computing, if you put it in those terms, in one semester” (Interview, 7/9/00).

6.6.3.2 Educational use of technology

Although issues with computer use had a major impact on students in the first year, the technologies used for teaching and learning affected student learning in a variety of ways (see Table 6.5 - 6.8). The tutors and students commented on videoconferencing, telephone access, the use of WebCT, and video and audiotapes.

6.6.3.2.1 Videoconferencing

The router that connected the videoconferencing system did not connect properly with the Wollongong campus telephone system in the first 4 weeks of Session 1, with the very first videoconference for a Commerce subject not connecting for the first hour. This was resolved by using an external provider, but meant a connection of 128 kb, instead of the 384 kb connection which provides almost television quality visuals (Wills et al., 2000, p10). This resulted in low quality visuals and sound for the important first few weeks. In addition, the positioning of students throughout the room that did not allow the microphones to pick up students when they spoke exacerbated the sound quality, which continued to be problematic throughout the semester. The combination of technical errors, lack of skills and classroom management issues combined to make the effective use of videoconferencing challenging for some subjects, as indicated in Table 6.5.

Table 6.5 Issues with educational use of technology: videoconference	
Technology	Comments
Technical	Line errors ... total signal loss ... Air conditioning noise... sound quality... [and] lighting ... [have been problematic] (Wills et al., 2000, p10).
Skills development	<p>.... you know it was so new with the technology we weren't confident with that, but if thinking about the technology wasn't an issue then you could think more about the dynamics of what's going on (Interview, 31/5/00).</p> <p>Audiovisual tute was really hard ... Would be easier if I didn't have people in two places - I didn't have the training for it (Interview, 31/5/00).</p> <p>Student 1: I hate that audiovisual thing, that's completely alienating.</p> <p>Student 2: I don't think that does the trick personally, especially when you answer a question and you get this zoom ... on the screen, turned me right off ... it's just too much.</p> <p>Student 3: I found the most difficult thing was ... you never saw the tutor, and quite often, the person in control of the camera had forgotten to actually [make sure you could see the person]...it was disjointed.</p> <p>Student 4: I didn't find the audiovisual stuff as difficult as it sounds like other people have, although the big problem that I found with it is the sound. There's not clarity of sound, which means that the volume needs to be pushed up, and I think that is made worse by not being able to lip-sync and seeing people's faces.</p> <p>Student 1: There seems to be a time delay too, which always left me concentrating really hard to hear rather than on what I'm hearing.</p> <p>Student 4: given that, I wouldn't rule it out as a medium, just develop it ... it seemed to improve as [the semester went on] (Focus group, 1/6/00).</p>
Classroom management	Students tend to be scattered around the room away from the microphone and often out of camera range (Wills et al., 2000, p10).

6.6.3.2.2 Telephone access

The telephone was identified as a critical communication tool, especially in the smaller centres, as indicated in Table 6.6, but both cost and access were identified as issues. The only telephone in the access centres was in the coordinator's office, which limited use for contact between students and tutors who were not yet comfortable with or did not have access to email. It also created safety concerns for those working late at night in the smaller centres. Furthermore, students were unable to ring one new lecturer for the first three weeks of session because she did not have a telephone at work.

Table 6.6 Issues with educational use of technology: telephone access	
Issue	Comments
Cost	It mightn't seem like much to ring her [the tutor] but when you're ringing long distance it is, and when you haven't got access to a computer, to email or anything, from Eden to Bega it's long distance (Focus group, 26/10/00).
Access	I would like phones put in here, public phones. Like I've tried and I've tried ... having problems with Telstra charges and all sorts of things. ...I mean if the person is in here on their own and something goes wrong they can't get in anywhere to ring up (Centre Coordinator, 27/3/00). I didn't even have a phone for three weeks (Interview, 26/9/00).

6.6.3.2.3 WebCT

Students and tutors were critical of how WebCT was used in some subjects, as indicated in Table 6.7. They appreciated assessment requirements which forced them to learn how to use the system, but did not appreciate locating lecture notes within the system, which required them to print out many pages, pointing out that it would be worthwhile to pay for a bound booklet. Other issues related to access to the system from home, and to perceptions of an improved standard when they were required to contribute to online discussions.

Table 6.7 Issues with educational use of technology: WebCT	
Issue	Comments
Cost	And the web-based stuff, I think my problem with it is having to download (and print)... because it's ten cents a page, if you don't have a computer, you can't leave it on there (Focus group, 1/6/00).
	WebCT was used for the lectures, we all had to learn to use the photocopier in different ways, trying to save paper (Interview, 27/10/00).
Access	The students that were using WebCT were ones that were doing it from home ... they don't ... go to computer laboratory and sit down and see what's on WebCT and have a play with it (Interview, 6/9/00).
Compulsory use	<p>Student 1: The one good thing about the subject was the bulletin board because it was compulsory to do it - to put 2 postings on per module and a module went for 3 weeks. And so in that way the bulletin board really got a good use.</p> <p>Student 2: It made you really read what you had to read, you didn't want to just put something really wishy washy on there [when] everyone else is going to read it. Going from that you wanted to put something really substantial on there.</p> <p>Student 1: That's right. At the same stage in some of the subjects in the early semester, without having a reason to be on the bulletin board it just died (Focus group, 12/3/01).</p>

6.6.3.2.4 Audio and videotapes

Some lecturers tried to replicate on-campus teaching through the provision of audio and videotaped lectures, when the videoconference unit was unavailable for a tutorial session. For the most part, students were not impressed with the quality of the amateur video and audiotapes of lectures used in two subjects, though one student found them worthwhile, as shown in Table 6.8.

Table 6.8

Issues with educational use of technology: video/audio lectures

Issue	Comments
Use	<p>The [audio] tapes are great ... even in the other subjects they could have tapes. (Focus group, 3/8/00)</p> <p>They were hard to follow without visual support.</p> <p>The audiocassettes weren't much good. It was hard to concentrate. Video recordings would have been much better.</p> <p>[the taped lecture] was boring – no-one really paid attention (Focus group, 12/3/01).</p> <p>... sleep inducing things. They're great for that - two minutes and you're gone (Focus group, 1/6/00).</p>
Quality	<p>I actually find the lectures a bit useless – I have to say. And it's partly just because of the technology. The videotapes are often really, really hard to decipher and to hear what's going on... (Focus group, 26/10/00)</p>

6.7 Discussion

This chapter examined how the people, processes and structures promoted or constrained the implementation of the Bachelor of Arts in a distributed learning environment. It identified the key factors and the implications for practice through examining how the structures supported the implementation, the effect of the administration processes, and the influence of the infrastructure on the learning context.

6.7.1 Support structures

6.7.1.1 Support units

The support structures included the units in Wollongong that provided staff and student support for teaching and learning, the executive support in the faculty, the centre support and the institutional support through the rewards system. For students in this new learning environment, learning support was essential (Choy, McNickle, & Clayton, 2002; Rovai, 2002). Many were mature-age students, who had not engaged in formal learning and its requirements for some time. For those students straight from high school, learning support was also essential to their success, especially for those who were admitted to the degree with special consideration (See Chapter 3, Section 3.7.2 for participant details).

Support for student learning is identified in much of the literature as critical for effective teaching in any learning environment (Chalmers & Fuller, 1996; Promnitz & Germain, 1996; Prosser & Trigwell, 1999). The need for flexible access to resources and learning support is even more imperative in a distributed learning context (Bates, 1997; Chalmers, 1999; Fowler & Branch, 2000). Taylor and Blaik (2002) in their report on the first four years at the Logan Campus of Griffith University indicated that support problems were related to the use of technology and to the students' transition to university. They report four methods to address these needs: a Transition to University Program, an extensive orientation week, the Learning Assistance Unit and a Common Time, which provided "a regular structured set of activities for students that are course specific, yet optional" (Taylor & Blaik, 2002, p50). Common Time included formal workshop activities that students could choose to attend as well as informal meetings with staff and students, and received a positive response from students and staff (Fowler & Branch, 2000). A study by Murray-Harvey (2000) of 52 late entrant students at Flinders University indicates that over half were not aware of the support facilities available to them. Those who were aware did not make adequate use of them, despite indicating their need for assistance. The students specified a need for "better orientation and publicity" (p144) and improved timing of information for new students, an indication according to Murray-Harvey (2000) of information overload.

For the new degree at the University of Wollongong, learning support was provided initially through face-to-face workshops on such things as time-management skills, essay writing skills and referencing. Many students did not attend because of timetable conflicts, other commitments, because they did not recognise that they would benefit from such assistance, or did not want to be seen as 'remedial' students. Although self-access material was available, the amount of material involved may have overwhelmed students, or they may not have recognised the support it could have provided them. The self-access materials may require more directed support and communication with students so that they can use pertinent materials when they require assistance.

Future offerings of a core compulsory subject with embedded learning support will ensure that all students develop the skills required. This approach, already used at the Wollongong Campus, would provide all students with assistance in making the transition to tertiary and discipline-based studies in an innovative and systemic approach to learning support, rather than identifying students as remedial (Skillen et al., 1998; Skillen et al., 1999).

Library services are also identified as critical for off-campus students. According to Lebowitz (1997b), reference to the use of library services or resources by off-campus students is minimal in the distance-education and discipline-based literature, a notion supported by Corrigan (1995). She contends that although there is a growing body of literature in the field, most is within the library literature, reflected in a recent bibliography (Slade & Kascus, 1996). Lebowitz (1997b) expressed concern that when libraries are discussed in the non-library literature they are framed as a support service and that: "There is little or no recognition of the central role that the library plays in support of the quality of education or in the development of lifelong learning skills" (p303).

The central role of the library for the students on the South Coast was recognised by the university from the early planning stages. The Outreach Librarian, responsible for the service, was involved in many of the committees, including the South Coast Project (Arts) where he played a major role in ensuring that adequate library resources were available for the students. In addition, the library used two strategies identified by Lebowitz (1997b) as useful for off-campus students: the provision of a branch library at the larger Shoalhaven Campus, and contracts with local community libraries for Batemans Bay and Bega. These services were supported by electronic access to journals and document delivery services, which were improved as the year progressed to meet the needs of students.

Whilst the Batemans Bay Library, which shared facilities with the Access Centre, met the needs of students, the Bega Library, located several streets away, did not. The Bega Library required updated facilities to better meet these needs and improved staff training. Both of these needs were addressed as the year progressed. However, library resources were dependent on subject coordinators identifying required resources before the start of semester and students reported in the surveys that they were inadequate for some subjects. For subject C, a comprehensive collection of resources were available for Wollongong students but only a modest number were available for the South Coast students. The subject coordinator indicated the smaller number of students did not require as many resources as the much larger number of students on campus, despite reference to them all in the subject outline. Librarians need to work closely with subject coordinators to convince them that off-campus students require access to the same resources as on-campus students.

The various roles of CEDIR staff in the implementation included establishing and supporting aspects of the technology infrastructure such as the videoconference system, producing resources for student learning such as student study guides, as well as educational development support for academic staff for the new learning environment that includes teaching development and support for the use of educational technology.

Much of the academic staff development literature points to the need to support academic staff because of the increased demands to change the focus of universities from teacher-centred to student-centred learning environments (Ramsden, 1992). Rossiter (1997), and others (McNaught et al., 2000) advise of the need for increased attention to staff development and support roles in universities because of the changing nature of teaching and learning. However, Taylor (1999b) cautions about the loss of ownership academic staff face when they develop subjects with support staff:

Where once teaching was the province of the academic, in technology-rich environments it is increasingly a task shared between academics, multimedia experts, IT specialists, librarians and others, including the students. There are real risks in the process. This can invite transfer of control of the process of subject development or implementation from the academic who designs and /or teaches the subject to those with greater expertise in the development of teaching resources by those who wish to diminish symbolically the importance of teaching and teachers within the learning environment". (Taylor, 1999b, p61)

For the South Coast tutors and subject coordinators there was a need for staff development to be ongoing, workshop-based and individual when needed but one subject coordinator identified the need for this to be included in their workload and that a long-term strategy is required, not just short workshops. In addition, as subject developers revise their subjects, support staff will need to be wary that ownership of the subject remains with the academic.

6.7.1.2 Faculty support

Leadership provided from within the faculty was a critical support for the initiative. The Dean and the Associate Dean, who was also Head of the South Coast program, were key to the success of the venture. The critical role of leadership in higher education is discussed in the organisational and educational change literature (Fullan, 2001b; Senge, 1992; Senge et al., 1999; Trowler & Knight, 2002). The findings from the Logan Campus study also indicate that leadership was critical to the success of their venture, both from within the new campus and from executive staff at the main campus (Taylor & Blaik, 2002).

The Dean of the Faculty of Arts provided leadership through her active engagement in the project by attending workshops, visiting the campus and access centres, and acknowledging subject developers in public and private forums and through support for tenure and promotion of those involved. In addition, the notion of developing relationships is identified as a key feature of leaders in educational settings (Fullan, 2001a; Kouzes & Posner, 1987). The Associate Dean targeted this important component of her role by developing relationships with the subject developers group before implementation, the local tutors and the subject coordinators during the first year (Albury, 2001).

6.7.1.3 Centre support

The commitment of the staff at the centres was previously identified in Chapter 5 and is highlighted again in this chapter. The Centre Coordinators demonstrated their commitment to the success of the centres through their actions and this was recognised by students and tutors. At the Shoalhaven Campus the dedication of staff was demonstrated when they gave up their weekend to set up the teaching spaces. The Manager, Shoalhaven Campus focussed more on management than leadership and the perceptions of students and tutors may have improved if he had engaged more in relationship building with them.

6.7.1.4 Institutional support

The incentives to participate in the initiative varied amongst the stakeholders. For the students the benefits of success were clear, though they needed to understand their role early in the semester, and to recognise the impact on their lives and that of their family and friends (see Chapter 5).

For the tutors, who displayed a strong commitment to their students, the advantages included paid work, teaching satisfaction and access to library resources when they were completing postgraduate study. The deterrents were significant though and included unpaid hours of work, feelings of isolation, insufficient training and support for their role, lack of job security and lack of recognition in the pay scale for their skills and expertise. These are all issues identified in the literature (Bassett, 1998; Gappa & Leslie, 1993; Jacobs, 1998; University of Queensland, 2002).

For the subject coordinators the advantages included support for tenure and promotion, peer recognition of their expertise, and job security for those seeking permanent work. However, the deterrents were significant. These included an increased workload without suitable allocation of time or financial reward for increased administration and communication required for the South Coast venture. However, it was perceived as time away from research which some indicated was the area of recognition that the reward system operated within, a common problem identified in the higher education literature (Coaldrake & Stedman, 1999; Eckel, Green et al., 1999; Hannan & Silver, 2000). Whilst commitment to the initiative by the tutors and some subject coordinators was valued, the sustainability of this commitment is questionable over the longer term without recognition and reward from the institution. Role descriptions for both groups are required to ensure that subject quality does not deteriorate in the longer term.

6.7.2 Administration processes

Administration issues affected the stakeholders in a number of ways. The issues included: lack of access to required technology; human error; lack of procedures to purchase textbooks and handle money; and design problems with a new database. For the centre coordinators this meant a lack of access to the technology required to correct human errors in student enrolment, and to provide students and tutors with identification cards. For some students it meant inaccuracies in their enrolments, overcharging for student fees, and a delay in ability to access key resources including the library, WebCT, textbooks, and subject resources. For some tutors, it meant late payments for their services, and a delay in access to key resources for teaching including the library and WebCT.

The management of timetabling from Wollongong meant that it did not meet the needs of local students and tutors, and the times of some classes were changed. The result of this was that some subject coordinators could not meet synchronously with students, as the classes were timetabled at different times and on different days, resulting in an increased workload, or no synchronous meetings. The centres found they needed to coordinate timetabling changes with the Timetabling Officer in Wollongong. This required an improved communication process so that the Officer understood the needs of the students and staff in the remote locations, but also met the needs of subject coordinator.

The administrative processes for the satellite campus and access centres were managed from the main campus in Wollongong, but required better coordination for off-campus students. The processes in place did not support the administrative needs in the new centres, since it required communication between different units in Wollongong, a situation identified by others in the institution as a problem for students at the main campus (Milne, Gluck, Peisley, Peel, & Myers, 1998). The centre coordinators had some preliminary training, but were unfamiliar with many of the processes in Wollongong, which relied on a tacit knowledge of many of the procedures, and with the responsibilities for different facets of the administration system. Since the Student Management Package was new, policy and procedures were not yet in place, leaving the centre coordinators, students, and tutors with many small problems that encroached on their time and more importantly, distracted them from teaching and learning.

Whilst planning and preparation had occurred for new administration systems to meet the needs of the distant campus and access centres, the implementation of a new system at the University of Wollongong was bound to have some initial problems. There had not been administrative systems in place to deal with students in a distributed learning context, as there were in other universities with large numbers of distance students, (see for example, Calvert, 2001; King, McCausland, & Nunan, 2001). This required a huge leap forward for administrative staff to change their mental models of how the system worked, an important step identified in the change process (Senge, 1992).

They now needed to ensure that the systems they put in place were at least “as complete, as responsive, and as customer oriented as those provided for the on-campus learner” (Innovations in Distance Education Faculty, 1998).

The previous ability of the Manager, Shoalhaven Campus to bypass procedures in Wollongong, for example the purchase of textbooks, resulted from the need to solve problems quickly, but with the advent of two more centres, the ad hoc system could no longer work. The responsibility for this process meant engaging units in the university which sat outside the administrative processes, such as the Unicentre Bookshop and the Students Representative Council. Neither of these had processes in place to serve off-campus students, though both responded quickly to improve their procedures. There was a clear need to establish new procedures to meet the requirements for teaching and learning away from the main campus in Wollongong.

6.7.3 Infrastructure

The section on infrastructure studied the teaching spaces, the library facilities and the technology network. For the teaching spaces the key factors were the readiness of the facilities, the appropriateness of the design, and the values of the community, the politicians and the University of Wollongong reflected at the openings. For the library facilities the key factors were the readiness of the facilities, their location and accessibility.

For the technology network the key factors were related to technical and pedagogical issues. The technical issues included access to and reliability of equipment. The pedagogical issues included support for skill development and a rationale for use of educational technology.

6.7.3.1 Teaching spaces

The readiness of the facilities was the first factor that affected the implementation. The Batemans Bay Centre was completed on time, with technology infrastructure in place and operational. This provided opportunity for a professional start to the academic year, hindered only by the visit from the fire brigade, though even this had a positive side. The Bega Centre was also completed on time but the delay with the technology infrastructure in this small centre meant a disruption to classes.

One factor that constrained the implementation was the delay in completion of the facilities at the Shoalhaven Campus. For this campus, the delay in moving to the new facility should have allowed sufficient time to complete the facility, and avoided the perception of failure that concerned the Manager, Shoalhaven Campus. However, this was not the case. The actual move was not coordinated well, with the result that the local staff and the CEDIR technical staff spent the weekend organising the teaching spaces, the computer laboratories, and the videoconference equipment, with insufficient time to test the equipment. When the students and tutors arrived at the new campus, it was still unfinished, the technology had not been tested, and the rubbish that greeted them at the front door was far removed from the professional start anticipated. Delaying the move for one more week may have overcome these first impressions, although the lack of organisation for the move may have had the same result. However, both the local staff and the CEDIR technical staff demonstrated their strong commitment to the success of the venture.

With no facilities for socialising at the interim campus, the delay resulted in a less social culture at the Shoalhaven Campus. The importance for students in the first few months of developing a connection to the university, both socially and academically, is reported in recent studies (McInnis et al., 2000; Pargetter et al., 1998). McInnis et al., (2000) report students' lack of connection to the university, but attribute this lack of time on campus to increased paid work, and increased use of technology, which were both factors which may have affected the Shoalhaven students. Pargetter et al (1998) suggest that: "A critical divide between students in the future may well be the extent to which their learning is a social experience centred on the university campus". (p2)

The second factor that affected the teaching spaces involved the design of the centres. At the Bega centre there was a poor match between design and pedagogical use of the facilities. The facility management decisions on the building design may have simply been constrained by a restricted budget. However, there may have been an assumption that little face-to-face interaction would occur between tutors and students, that most of the teaching and learning would occur in an online environment or through videoconferencing, and that only small numbers of students would enrol.

If this had been the case then the tutors would not require office space, the very small tutorial rooms would meet the needs for occasional tutorial meetings, and the computer laboratory would meet the needs of the students who worked there independently. However, this was not the reality.

Although the access centre did have a large computer laboratory that was used extensively for independent work by the students, as well as tutorial groups, the restricted spaces for face-to-face teaching, and lack of space for tutors affected teaching and learning activities. The students met in tutorial groups regularly, but with only one room suitable for more than eight students, balancing the needs of the larger Commerce group and the Arts students was problematic. This will become more problematic in the future as student numbers increase through the introduction of more subjects, and needs to be resolved.

The inappropriate lighting in the computer laboratory also reflected a need for better communication between the designers and those who were to use the teaching spaces. The design of the centre may have reflected a belief that only small numbers of students would enrol, and that the long-term viability of the centre was questionable.

At the Batemans Bay Centre and the Shoalhaven Campus, the larger facilities were more appropriate for the needs of students and staff in a distributed learning context, perhaps an indication of a greater expectation of a successful venture, or just better management or commitment from those involved. However, the inflexibility of the lecture theatre at the Shoalhaven Campus indicated that it was designed for face-to-face teaching not videoconferencing and this resulted in difficulties with use of the facility for teaching. The flexible smaller spaces were more useful in this context.

New learning environments require new ways of designing learning spaces and a team approach that includes academic staff and students may overcome design problems (see guiding principles in Jamieson, Fisher, Gilding, Taylor, & Trevitt, 2000). Taylor and Blaik (2002) discuss the suitability of facilities in their report on the new Logan Campus for Griffith University. They state that one of the assumptions was “that there would be little use of [learning] space for formal teaching occurring, with most ‘teaching’ being resource-based, and accessed by students on a more individualised basis” (Taylor & Blaik, 2002, p55).

They point out that this assumption, and others made about teaching and learning facilities were challenged by the actual use, and comment on the inappropriate design of some of the centre facilities, as a “discrepancy between their use and the architecture”, which they were able to improve on in the next stage of the building program (Taylor & Blaik, 2002, p58).

The third factor was the values of the community, politicians and the university evident in the openings of the centres. The official opening of the Bega Centre demonstrated the political importance of access to higher education for rural and remote students, but also the importance to the community. The opening of the Batemans Bay Centre was a community venture, driven by local rather than state or federal politics. The focus was on the importance of the library for the community, and the collaborative partnership with the university and TAFE. The university representatives were not part of the official party, indicating the higher priority of the community nature of the venture.

By the time of the official opening, the Shoalhaven Campus had overcome the initial difficulties. The political nature of the opening was in evidence with representatives from local, state, and federal government bodies addressing those in attendance. The higher status of this opening for the university was also evidenced by the large representation of people from across the faculties, although this could have also been because of the closeness to the Wollongong campus, only one hour away. The lack of representation of the student body could have been influenced by the need to avoid embarrassment, given the small student protest, but could also signify a lack of recognition of the importance of the event to the local students.

The delays to the completion of the facilities affected the experience for the students and staff. One centre was designed inappropriately for the needs of staff and students. The openings of the centres served the political needs at the time, but the limited inclusion of students at the Shoalhaven Campus may have signified to them their unimportance to the institution. The lack of facilities, such as the library or cafeteria at the interim campus restricted on-campus socialising for the students. This combined with other difficulties experienced with technology and administration may have contributed to the 'second rate degree' perception mentioned by the Dean of Arts.

6.7.3.2 Library facilities

For the library facilities the three key factors that supported or constrained teaching and learning were the readiness of the facilities, their location and their accessibility. The Shoalhaven Campus Library and the Batemans Bay Library, both new facilities, were ready to meet the needs of students when their centres opened. However, the Bega Library, an established community library, was not ready to meet the demands of tertiary students and had insufficient resources to do this. The Shoalhaven Campus Library and the Batemans Bay Library were located within their centres.

The Bega Library was located two blocks away from the Access Centre and required students to leave the building to access resources, and to organise the required resources for their work. The Shoalhaven Library, with two full time members of staff, were able to be flexible with their opening hours, however both community libraries had restricted opening hours in relation to meeting community needs.

Whilst the facilities at Shoalhaven and Batemans Bay supported teaching and learning, initially the Bega facilities did not. However, the willingness of the Library to address the constraints through upgrading facilities and improving procedures ensured that the difficulties were overcome. The difficulties that students identified with location and opening hours might be addressed through better time management and planning of regular visits by the students.

6.7.3.3 Technology networks

For the technology networks there were four key factors related to technical and pedagogical issues that supported or constrained the implementation. The technical factors included access to and reliability of equipment. The pedagogical factors included support for skill development and rationale for the use of educational technology.

The first factor that affected implementation was access to technology. All centres provided computer laboratory access for students during opening hours, with 24-hour admittance at the smaller centres.

All centres were well resourced with computer equipment and many Shoalhaven and Batemans Bay students purchased their own computers during the year, though the Bega students indicated that they did not have access to a computer at home, with some living away from the electricity grid. All centres also had access to videoconferencing facilities but telephone facilities in the centres were not established until late in the year.

The provision of telephone services on campus was necessary for the safety of the students, particularly in Bega, which was not serviced by the mobile phone networks. The high cost of telephone calls in the Bega area also restricted access to tutors and subject coordinators, since many did not have access to other options such as email away from the centre. New staff need fast access to the tools required for their teaching, and the delay in provision of a computer and telephone for the new academic in Shoalhaven hampered her ability to communicate with students.

The second factor of reliability of equipment included infrastructure difficulties such as establishing networks and resolving problems the students and staff encountered with technology. The infrastructure problems related to external providers and needed resolution to improve the overall service. The problems students and staff identified with the computer network included a slow network authentication system, paper jams in the printers, and card reader and monitor breakdowns. The technician quickly addressed the Shoalhaven Campus problems but the other centres relied on infrequent visits and centre coordinators to fix such problems. For videoconferencing, the technical problems related to sound continued to occur throughout the year and needed to be addressed. Initially the network infrastructure only allowed low quality connections although this was overcome after the first few weeks.

The third factor, related to pedagogy, was the development of skills in using technology. This included development of staff and student skills to use computer software and hardware, as well as skills required to use videoconferencing equipment.

The final factor was the purpose for the use of technology. The use of WebCT provided opportunity for access to teaching and learning materials and communication among the students, tutors and subject coordinators. However, the provision of lecture notes for students in WebCT simply moved the cost of printing from the university to the students. It also meant spending time persuading the unreliable printers to work. Where content information was provided in an interactive way in one subject, the students supported its use. The use of the discussion space was seen as worthwhile by the students where it was incorporated in the assessment task, ensuring that they developed the skills needed.

Two subject coordinators, who were not the subject designers, introduced the use of audio and videotapes during the semester. It appeared to be an attempt to replicate traditional teaching methods since they had not engaged in any staff development activities related to the distributed learning context. When these technologies were used high quality recordings should have been made through the use of campus recording facilities. More importantly, it indicated a need to review teaching strategies and ensure that new subject coordinators also had an induction into methods used for teaching and learning in this context.

The management of teaching and learning through videoconferencing requires different skills to those used in a face-to-face environment. In particular, the need for the teaching space to be managed so that students sit near microphones and on camera was required to address this issue. Although, the technical and pedagogical issues with videoconference-use did not instil confidence in students or tutors, videoconferencing may have improved relationships and resolved misunderstandings between centres. However, staff training and effective teaching and learning strategies are imperative for success when using a new medium.

These issues might have been addressed through:

- The identification of technical support processes and procedures.
- The resolution of technical difficulties with provider, appropriate technology infrastructure and thorough testing of equipment.
- An investment in reliable equipment since cost savings on equipment may result in higher maintenance costs.
- Scheduled regular visits of the technician to access centres for maintenance and observation of users to diagnose problems.
- The provision of a public or local phone in the Access Centres.
- The supply of loan computers such as laptops, and student loans for computer purchase, (a service available in Wollongong), to address equity issues for students.
- The inclusion of more skill-based workshops in orientation activities plus online training resources, such as the database tutorial provided by the library.
- The inclusion of computer skill development within subjects, for example students could be required to email tutor, subject coordinator or other students regularly in the first few weeks to develop these skills.
- Increased provision of student and tutor training for using technology
- Further provision of ongoing staff development and support for tutors and staff.
- Increased teaching support to ensure pedagogically sound teaching methods used and appropriate media chosen.

6.8 Summary

This chapter sought to identify the factors that promote or constrain teaching and learning for students and staff in a distributed learning context. This highlighted a number of issues that need to be addressed if the initiative is to be sustained in the longer term. From the discussion on infrastructure, support units, administration processes and people, the factors that promoted teaching and learning included:

- High-level support and commitment of the local staff and the executive and other staff in the Faculty of Arts in Wollongong.
- Units on the Wollongong Campus who were flexible and prepared to adjust practice to meet the needs of those at the remote campus; for example, the library facilities at Shoalhaven Campus and Batemans Bay, and the flexibility and willingness to improve procedures to meet the needs of the remote students in the Library at Wollongong Campus.

The factors which constrained the implementation included:

- Essential infrastructure that was not ready for the implementation.
- A lack of documented procedures and processes for administration at the remote centres
- Unreliable or inappropriate use of technology.
- A lack of timely access to learning resources for students and tutors restricted by the late delivery of resources from Wollongong, and difficulties with identification cards.
- Changed working conditions for tutors and subject coordinators, which were not acknowledged through policy changes or reflected in the reward systems.

The conclusions reached in this chapter relate strongly to the conclusions reached in Chapter 5, and reflect the interdependence between the learning program and the support and infrastructure aspects of it. The people, processes, and structures in the institution affected the implementation of the new degree, indicating a need for collaboration and communication among the members of the academic staff and the broader administrative groups and support units.

The next and final chapter presents the conclusions reached in the study. The chapter reviews the lessons learned in the first year of implementation and makes recommendations to improve the process in future years.

Chapter 7

Recommendations and emerging framework

7.1 Introduction

This case study investigated the experiences of the stakeholders during the first year of implementation of a new interdisciplinary degree, Bachelor of Arts (Community and Environment) in a distributed learning context. The researcher reviewed the initiation process within the institution, and investigated the implementation of the program in order to identify factors that supported or constrained teaching and learning. The study considered the process for implementing the new degree at the institutional, faculty and subject level through the multiple perspectives of the participants. The key objective was to identify the ways the structures and processes could be improved for further implementation at the University of Wollongong, and to allow the reader to make generalisations to other contexts.

The broad research question guiding the study was:

What are the characteristics that could constitute guiding principles and strategies for a supportive context for distributed learning?

In order to answer the question within the context of the University of Wollongong two sub-questions were identified:

What were the perceptions of the students, tutors and subject coordinators in the BA program of teaching and learning in a distributed learning context?

What organisational factors promoted or constrained teaching and learning for students and staff in a distributed learning context?

This chapter presents the findings of the study and makes recommendations to improve practice within the institution. It presents an emerging framework for implementation of a supportive context for distributed learning that identifies the characteristics required to guide this implementation.

7.2 Perceptions of teaching and learning

Aspects of the design and implementation specific to subjects were examined in Chapter 5 to identify patterns and common issues from the perspectives of the students, tutors and lecturers. The students perceived the opportunity to participate in higher education in their local community as extremely positive. They particularly acknowledged the role of the tutors and the benefit of the small tutorial classes to their learning, though they expressed some uncertainty about what it meant to be a student in the distributed learning context. They praised student-centred subject designs that included workbooks or study guides containing learning objectives, content, learning activities, and assessment tasks. By comparison, they were highly critical of one subject that replaced lectures with lecture notes on the website and did not relate the content to the practical component of the subject. For some students there was a perception that the workload was high, and in one centre this was because of different tutor perceptions of the assessment task. They expressed concern about developing skills for learning and using technology, and the unreliable or unsuitable use of technology. Students identified communication with the subject coordinators as an important component of a distributed learning context that was sometimes lacking.

Many of the tutors viewed the opportunity to work at the Shoalhaven Campus and Bega and Batemans Centres in a positive light. They displayed a strong commitment to their centres and often worked additional hours to support student learning, taking more responsibility for the subject than is usually required of a tutor at the Wollongong Campus. Some were critical of subject design when they thought it did not effectively meet the needs of students. The more experienced tutors were able to adapt the tutorial material to assist the students to make the connections between theory and practice. The tutors expressed frustration at the limitations of some of the administrative processes and reliability and use of technology. Many felt isolated through inadequate communication with subject coordinators and other tutors. Where they had been able to attend tutor training they valued developing relationships with other tutors and the skills they had developed, but many indicated an interest in further professional development for improving the way they used technology and improving their teaching practice.

For some of the subject coordinators the South Coast subjects were of secondary importance to their roles on campus. Some perceived the subjects as an added burden and an increase to their workload, which they considered as unrewarded by the institution. Two subject coordinators viewed the time taken to develop the student workbooks as being the main program responsibility for the subject. For this reason they saw the subject coordinator's role as purely administrative and rarely initiated contact with the tutors or the students. An exception to this was Subject D, for which the tutor was a permanent member of staff located at the Shoalhaven Campus who had regular contact with the subject coordinator. However, the two new staff members involved in the subject had not had the advantage of professional development for teaching in the distributed learning context and were implementing a subject designed by staff members who had left the institution. This lack of expertise resulted in adding technology to provide a teacher-centred 'transmission model' of teaching in the form of amateur videos of lectures, when the videoconferencing system was unavailable at the required time for lectures. However, videoconferencing was used for tutorials in the same subject with the tutor alternating her location among the centres. Although the students found videoconferencing daunting initially when they presented seminars, they valued the interaction with other students and the personal contact with the tutor.

There were six common themes identified from the perceptions expressed by the participants as problematic for teaching and learning in the distributed learning context.

These were:

1. The teaching and learning strategies were not always appropriate and some varied from the design of the subjects.
2. The emerging roles were different to those experienced on campus.
3. Improved communication was required between the main campus and the centres.
4. There was a need to develop new skills and understandings.
5. Workloads were perceived as high by students and staff.
6. The role of technology was new and unfamiliar.

These themes are explored further and related to the literature.

7.2.1 The range of teaching and learning strategies and variations from the subject design

In the distributed learning context, the subjects required teaching and learning structures that promoted student-centred learning, as determined in the degree design phase. This meant that the subjects included appropriate learning outcomes, teaching and learning strategies, content provision, assessment strategies, and learning resources, as identified in models of teaching and learning in higher education (Biggs, 1999; Laurillard, 2002; Ramsden, 1992); for example, an activity-focussed study guide that incorporated more than just content or lecture notes, but provided scaffolding for student learning. This occurred through strategies that engaged the reader by encouraging students to make the links between theory and practice and provided feedback on their learning.

The degree program required new ways of thinking about teaching and learning since the South Coast Project (Arts) group had determined that traditional teaching paradigms used at the main campus would not meet the needs of students and academic staff in a distributed learning context. The members of the South Coast Project (Arts) group devoted a great deal of time and energy to reconceptualising teaching and learning, which resulted in subjects designed to achieve a student-centred learning environment. In addition, the degree was interdisciplinary in nature and used a flexible approach to teaching and learning, which was also new.

However, new subject coordinators and other members of the faculty were not involved in the process and did not have the same opportunity to develop the new conceptions required to move from a teacher-centred approach to a student-centred approach. This resulted in some subject implementation that differed from the original design. Students and tutors perceived the subjects that supported student-centred approaches to learning as more appropriate in a distributed learning context.

7.2.2 Roles were different to those experienced on-campus

New roles were required in the distributed learning context and these emerged as the year progressed. Subject coordinator roles were different and this was reflected in the ownership of the subject, which is at the individual rather than the program level on campus. This meant that if the subject coordinator was not the subject developer then implementation may not have reflected the intentions of the subject developer, and may not have met the needs of the students.

This was exemplified for example in Subject A, where the coordinator perceived his role as administrator of the subject, resulting in one assessment task being implemented at each centre differently because tutors were left to interpret the tasks without discussion and feedback.

Subject coordinators saw their role as administrative, however, the distributed context meant that they needed to take more responsibility for communication with the tutors and students. In Subject B the subject coordinator, who did develop the subject, felt his responsibility ended with the preparation of the resources, and in Subject D the subject coordinator, who also developed the subject, taught the same subject to 180 students on campus. In both cases, they responded to questions from the tutors but had little contact with the students. The coordinator of Subject B did accede to a videoconference discussion with the students and they responded positively to the experience.

In the flexible learning approach used here, the students were expected to take responsibility for their learning. They were expected to demonstrate initiative and motivation and be independent learners. However, students may require support to develop study habits and time-management skills to assist them to develop as independent learners.

Students in this study had varied views about what flexibility meant in terms of their course. One thought it was not flexible at all because they had to attend tutorials; another thought the reduced face-to-face contact provided flexibility; another thought technology could be used more and one thought it was very flexible. A tutor expressed a concern that students saw the independent work they were required to do as additional to their load, rather than part of the student role in this environment.

Many students are unsure about how to be independent learners, and another study has shown that students are expected “somehow to ‘know’ how to be independent and self-reliant” (Pargetter et al., 1998, p56). For all new students, support is required to understand this role, particularly if their previous experience with education has been a teacher-centred approach.

The role of tutors was unclear initially, despite professional development activities to support them in the new role. Their expectations of what the role entailed changed quickly in the first few weeks as they adapted their roles to meet the needs of their students. The tutors looked initially to the subject coordinators for support but when this was not forthcoming, the tutors at one centre supported each other, developing a community of practice to overcome the difficulties they experienced. Some tutors interacted with tutors from other centres who were teaching the same subject and this could provide an avenue for expanding the community, which could also include the subject coordinators.

In this new learning environment, the uncertainty of role definition was understandable and other studies have indicated that this is a common problem for academic staff and students in new contexts for teaching and learning (Collis & Moonen, 2001; Taylor, 2000; Taylor & Blaik, 2002; University of Queensland, 2002). As roles emerge it is important to recognise the need for support for understanding the changes required and to acknowledge the changes through policy documents and role statements.

7.2.3 Communication problems

Communication between the centres and Wollongong was identified as the third issue for students and tutors. Collaboration between the subject coordinators and tutors across the centres may have prevented some specific problems; for example, the inconsistency with implementation and marking of the assessment task in Subject A, and the perception of the subject coordinator in Subject E that students were not capable of the work when they achieved better marks than the Wollongong cohort in the final results.

Regular meetings during the semester would have helped to address these problems, and, given the distance, they could have used telephone or videoconference if people were available at the same time or they may have used the discussion space in WebCT or email to address concerns and share strategies.

Whilst student-student and student-tutor interaction was high because of the small numbers, interaction between the subject coordinators and the students was low and often just to solve specific problems. The research on student-faculty interaction points to the importance for student learning of this kind of interaction (Astin, 1993; Krause & Duchesne, 2000; Pascarella & Terenzini 1998). The students and the tutors in Subject B responded positively to the videoconference the subject coordinator held after little interaction during the semester. Videoconferencing two or three times during the session may have improved relationships and addressed concerns for all subjects. This indicates the possibility of finding ways to communicate between the groups that harness the affordances of the technology when face-to-face meetings are not possible thereby assisting to remove feelings of isolation from the main campus (Collis, 1998; Jaasma & Koper, 2001; Kuh & Hu, 2001).

7.2.4 Need for new skills and understandings

The issue of support for developing new skills and understandings was the fourth issue identified from the perspectives of the participants. Whilst support was provided for students through Learning Development, the Library and ITS, finding ways to encourage students to access this support needs further attention. Skill development support was provided during orientation, but students required support beyond the initial orientation for development of new skills (Fowler & Branch, 2000; Taylor & Blaik, 2002). Students indicated during the focus groups that they required flexible and ongoing support to develop and improve academic and technical skills in their first year.

Other studies in the area also advise the importance of student support in such environments (Chalmers & Fuller, 1996; Prosser & Trigwell, 1999; Taylor & Blaik, 2002). Students require further skills development for technical and information literacy (Collis, 1998; Fowell & Levy, 1995; Hara & Kling, 2000; Rossiter & Bagdon, 1999) and for tertiary literacy skills development (Promnitz & Germain, 1996; Taylor, 2000; Taylor & Blaik, 2002). They need effective support which responds to the needs of the student at the time required (Barraket, 2000, p123; Hara & Kling, 2000) but to make use of this they need knowledge of the support available and flexible access to it (Choy et al., 2002; Murray-Harvey, 2000). Incorporating skill development such as computer and essay-writing skills within core subjects could improve the outcomes for students, as demonstrated when this occurs within subjects in Wollongong (Skillen et al., 1998).

Support and encouragement was required for tutors and academic staff to engage with their changed roles and responsibilities and this needed to be enhanced by changes in the institutional recognition, reward and incentive systems. This view is supported by the literature on academic roles (Adams, 1998; Anderson et al., 2002; Coaldrake & Stedman, 1999; McInnis, 2000; Shotsberger, 1997; Trowler, 2002), on tutor roles (University of Queensland, 2002) and the literature on change in higher education (Fullan, 2001a, 2001b; Trowler & Knight, 2002).

For the tutors this might include recognition of their role through financial rewards for additional hours resulting from the distributed model and provision of office space and access to resources (Bassett, 1998; Jacobs, 1998; Kogan, Moses, & El-Khawas, 1994; University of Queensland, 2002). Tutors also need to be included in the culture of the faculty through acknowledgement of their skills and expertise, for example by inclusion in subject review teams so that they become involved in the faculty context (Gappa & Leslie, 1993; University of Queensland, 2002). They also require support for the development of a community of practice, which involves tutors and subject developers, through regular face-to-face meetings and technology-mediated communication (Fullan, 2001b; Jacobs, 1998; Wenger, McDermott, & Snyder, 2002). For this to occur it will require the establishment of effective policies on the working conditions and roles of tutors (Jacobs, 1998; University of Queensland, 2002).

For the subject coordinators this might include workload allocations, which reflect the changed nature of the work (Coaldrake & Stedman, 1999; McInnis, 2000) and policy changes, which reflect the changed role of the subject coordinator in a distributed learning context (Collis, 1998; Harrison & Brodeth, 1999; Shotsberger, 1997). This will require changes to the institutional rewards and incentives systems which truly value teaching as much as research, especially in the promotions system. Again, support is needed for the development of a community of practice that engages the wider faculty as well as tutors in the South Coast Project (Arts) team and this could improve practice (Fullan, 2001b; Jacobs, 1998; Wenger et al., 2002).

7.2.5 High workloads

Students, tutors and subject coordinators identified increased workloads in the distributed learning context. Some students perceived the workload on the South Coast as high and measured their workload as related to the amount of time they spent on campus or in the Access Centres. The reduction of face-to-face time meant increased responsibility for students to work outside the class however, and this expectation needed to be made clearer to students. In two subjects students specifically commented on the high workload. For Subject A this was due to misunderstanding of the requirements of the assessment task in one centre and in Subject C this was due to the separation between the lecture material and the practical classes. Research on student workload points to the importance of balancing workload for students and reports that students will adopt a surface approach to learning when they identify workload as high (Kember & Leung, 1998; Ramsden, 1992). This study supports these findings with students reporting the use of rote-learning for examinations when they perceived the workload was high.

Workload was also identified as an issue for tutors and subject coordinators. The tutors were part-time sessional workers who attended campus for the tutorials. Many indicated they worked additional hours, offered extra tutorials and provided assistance by telephone or email for their students outside of their paid work time, a common problem for tutors identified in other studies (Haeger, 1998; University of Queensland, 2002).

The subject coordinators indicated that the work for the South Coast was additional to their workload and was seen as part of their administrative load and an additional burden that took time away from research, also common problems identified in other studies (Collis & Moonen, 2001; McInnis, 2000).

7.2.6 Technology was new and unfamiliar

Educational technology was identified in the early planning for the centres as the key to successful implementation in facilitating communication at a distance (University of Wollongong, 1995, 1997b). Technology played a critical role in the delivery of subjects, which used videoconferencing, audio and videotapes, email and aspects of a Learning Management System (WebCT) to support teaching and learning.

The use of technology required the development of new skills for students and tutors. The participants reported concerns about inappropriate use of technology, such as videotaped lectures and lecture notes in WebCT; the need to learn computer literacy skills; technical difficulties with equipment including the videoconference facility, computers and printers; and the difficulties of using videoconference as a medium for teaching. The students supported the use of technology when they felt it enhanced the learning experience; for example, when interactive web-based content was provided in Subject D, and in Subject C where videoconference was used for tutorials, once they overcame their initial concerns about the technology-mediated environment.

The literature on educational technology supports the view that pedagogy not technology should determine how it is used (Collis & Moonen, 2001; Jonassen, 1996; Nikolova & Collis, 1998). In addition, Laurillard (2002) advises that teaching and learning strategies should be determined first, then the most appropriate medium chosen to support them. In this first year on the South Coast with a new learning environment, it may have been difficult for those designing the subjects to forecast the most appropriate medium as this was the first time the subjects had been taught at remote campuses. In addition, technology was used at times to overcome difficulties not envisaged earlier such as the use of audio and videotapes to supplement web-based lectures.

7.3 Support for the learning program

The complex social dimension of change determines its success in collaboration with changes to processes and structures. As Fullan (2001b) identified, the crucial variable is what people do and do not do that determines the success. He also reminds the reader that “educational change is a *learning experience for [all] the adults involved*,” not just the students (Fullan, 2001b, p70, original italics). For the University of Wollongong the implementation of a new degree involved more than the teaching and learning of subjects at the new campus and access centres. It required the collaboration of people across a number of work units at the main campus to plan and develop new processes and structures, which would support the implementation process. This underlines the importance of developing a “learning organisation”, that is “an organisation that is continually expanding its capacity to create its future” (Senge, 1992, p14).

Aspects of the people, processes and structures required to ensure a supportive context for distributed learning are discussed in relation to the first year of the new degree. The factors that promoted or constrained teaching and learning for students and staff during the implementation process are identified in this section.

The implementation relied on the support structures, the administration processes and the infrastructure of the university, as identified in Chapter 6. The support structures for the innovation included support units for teaching and learning, faculty support, the support within the centres and institutional support. The institutional support units at the University of Wollongong included Student Services, the Library, CEDIR and ITS. Students required support to make the transition to tertiary education through the development of academic skills as well as technology and information literacy skills. Academic staff also required support to develop leadership skills, teaching skills, and technology skills, as well as new ways of adapting technology for teaching purposes and for communication to improve relationship building.

Chapter 6 identified the factors that supported or constrained teaching and learning during the first year of implementation. Factors that supported implementation included:

- The willingness of the support units to allocate specific people to be responsible for the tasks.
- The acceptance of responsibility by the people allocated and their actions to develop or change processes to meet the needs of the new learning environment.

Factors that constrained the implementation were:

- Inappropriate timing and limited access to skills development for students.
- Difficulties experienced with access to learning resources, including provision of library resources and subject materials.
- Insufficient provision of ways to meet professional development needs of tutors and academic staff when required and inclusion in their workload.

The Centre Coordinators and technical staff provided additional local support for students and tutors. The study identified that human contact, both locally and from Wollongong, is a necessity in a distributed learning context. The commitment of the local staff to support communication between the groups is critical to the ongoing success of the program.

The Faculty of Arts provided support for the students and tutors in a number of ways. The Dean and the Associate Dean through their effective leadership and encouragement for staff and students supported the implementation. The Dean achieved this through her involvement and recognition for those involved. As good leaders do she knew “when and how to become [an] active player[s] and when to step aside.” (Eckel, Hill et al., 1999, p6), as demonstrated when she took the time to intervene with the tutorial group at Centre 2.

The Associate Dean also provided leadership through the development of relationships with the support units, team building for the South Coast Project (Arts) group, and her efforts to recognise the work of the tutors and to encourage their participation outside the tutorial. A constraint from within the faculty was the lack of recognition of the importance of the new degree by the wider faculty group reflected in the unwillingness to allocate extra time within the workloads of the subject coordinators involved. This resulted in poor communication with students and tutors at the centres, and a lack of attention to assessment tasks at the centres. This contributed to low expectations for student results in one subject and an increased workload for students in another when one tutor misconceived an assessment task.

The people involved needed to understand their roles and responsibilities in the implementation process, including the importance of effective communication strategies for building relationships between staff and students and the affordances of the available technology to assist this communication. The institutional reward system must find ways of acknowledging the increased workload of teaching staff in a distributed learning context. A lack of commitment to the project may occur where people feel their contribution is not appropriately recognised or where they perceive that the reward and incentive system of the institution values other priorities, such as research, more highly.

New administrative processes were established at the University of Wollongong in time for the new centres in 2000. However, new practices in the institution meant new challenges for all units involved whether on-campus or off-campus. The location of students and tutors at the distant centres meant difficulties in addressing issues such as identification cards for staff and students, and a failure of systems, such as the lack of a location field in the new student database that resulted in academic staff being unable to identify which centre students were enrolled in. The willingness of the people involved to respond to the needs of the remote centres through changed procedures supported the implementation.

However, administration practices of the institution were a constraint on the implementation. In particular, documented procedures and policies are required to ensure new procedures became practice and do not have to be revisited each session. Students and staff required access to responsive, timely and effective administrative support, just as they do at the main campus.

The infrastructure for the new centres included the teaching spaces, the library facilities, and the technology network. For the teaching spaces, the readiness of the facilities, their appropriateness for the teaching and learning context, and the political and community values expressed through the opening of the centres were key factors. Each of these factors supported implementation in some centres and constrained it in others. For example, the design of the teaching spaces at Bega constrained the implementation when there were no workspaces for tutors and the small tutorial rooms restricted teaching activities. At the Batemans Bay Centre the teaching spaces met these needs and so supported the implementation. The delay in completion of the Shoalhaven Campus constrained aspects of teaching and learning for the students and tutors, but the Campus itself met the needs of the staff and students. These experiences demonstrate the need for teaching spaces to be appropriate for their intended use, and the designers of the buildings may need to collaborate with teaching staff to develop a better understanding of teaching and learning, a concept identified in a recent article about teaching spaces (Jamieson et al., 2000).

The location and integration of the library facilities supported students and tutors at Shoalhaven and Batemans Bay, but was a constraint for students in Bega since the library was not co-located with the centre. However, it became supportive over time as the community library staff made the changes to their practice to accommodate the needs of the university students. The main campus library also supported the implementation through the consistent evaluation of their practice and changes made as required during the first year; for example the Outreach Librarian worked closely with the staff at the Bega Community Library to assist them in developing new skills to use technology.

The technology network supported and constrained the implementation. The availability of the network supported the implementation by making a variety of educational technology available. The hard work of the staff resolved issues and overcame difficulties. The constraints included aspects of pedagogy, such as the way technology was used (or not used) to support learning, and the skills of those using it for teaching and learning. Another constraint was access to and reliability of the technology. Many of the difficulties could not have been predicted before implementation, such as the issues with printers and card readers.

Whilst many academic staff engaged in professional development to use technology in teaching and learning, it is often only during actual use that changes are made to practice. Since the people are the core to the implementation of new teaching and learning practices, supporting their “changes in beliefs and understandings are the foundation of achieving lasting reform” (Fullan, 2001b, p45).

New learning environments require the collaboration of units across the university to ensure that adequate and appropriate support, administration and infrastructure are in place. However, whilst some issues may be anticipated before implementation, it is not until implementation is underway that people become aware of other issues. Whilst it is suggested here that improved methods of communication and collaboration could improve the process, it is also acknowledged that unanticipated and unintended outcomes affect implementation. Many of the work units addressed problems as they were identified. The next step is to ensure that the solutions to the problems are documented through the establishment of appropriate policies and practice within the institution.

7.4 Implications for teaching and learning

The following recommendations, which are derived from the findings, are offered to guide further implementation of the Bachelor of Arts at the South Coast centres.

- 1. When subjects are reviewed ensure there is an alignment between subject outcomes, teaching and learning strategies, and assessment tasks that reflect a student-centred learning environment.*
- 2. The faculty might consider formulating role statements for students, tutors, and subject coordinators for the distributed learning context that document expectations of time and workload for each subject.*

3. *The subject coordinators might consider providing guidance and feedback to students and tutors through regular communication.*
4. *Increased student support for skill development may be provided within subjects and outside them.*
5. *Further support could be provided for staff to use educational technology appropriately to support teaching and learning.*
6. *The university could undertake ongoing research into the time required to effectively coordinate an off-campus subject and that this reflected in the workload allocation for staff.*
7. *The university might consider researching alternate models for professional development for full-time and sessional staff, in particular, ways of supporting the development of communities of practice and the use of educational technology to support professional development.*
8. *The university should collaborate with faculty staff when initiating changed practices for administration as they directly affect teaching and learning in off-campus environments.*
9. *Documented procedures and policy should be established for the use of the new administrative systems.*
10. *For any expansion of the campus and centres the views of academic staff and students could be incorporated in the design process to ensure that physical structures meet the needs of the people who will use them.*

The chapter will now consider how these might inform models of implementation for teaching and learning in higher education.

7.5 The implementation process

The literature on implementing change in higher education is closely allied with the literature on educational leadership (Fullan, 2001a; Knight & Trowler, 2001). This relationship is understandable since “leading involves attempting to bring about change that is desired (at least by some) or challenging change that is undesired (at least by some)” (Knight & Trowler, 2001, p3). However, although leadership is critical, many other factors influence change in higher education.

The complexity of the implementation process, whilst recognised in the literature, is not reflected well in the available models. Early higher-education models, such as Becher and Kogan (1980), identify a framework that acknowledges the importance of examining how change is implemented at the level of the institution, the faculty, and the department or program, because unlike some corporations or government departments, there is a level of autonomy in each of these groups. Other models focus on different aspects of change, and Ellsworth (2000) makes the point that it is important to apply different models to different stages, referring to them as a toolbox from which to draw. In his framework for a change communication model, he distinguishes seven components of the toolbox and identifies key authors and their frameworks or models. There is some overlap between the models for example, Fullan (2001b) and Havelock and Zlotolow (1995) both emphasise the change process and the role the stakeholder or change agent plays at all levels.

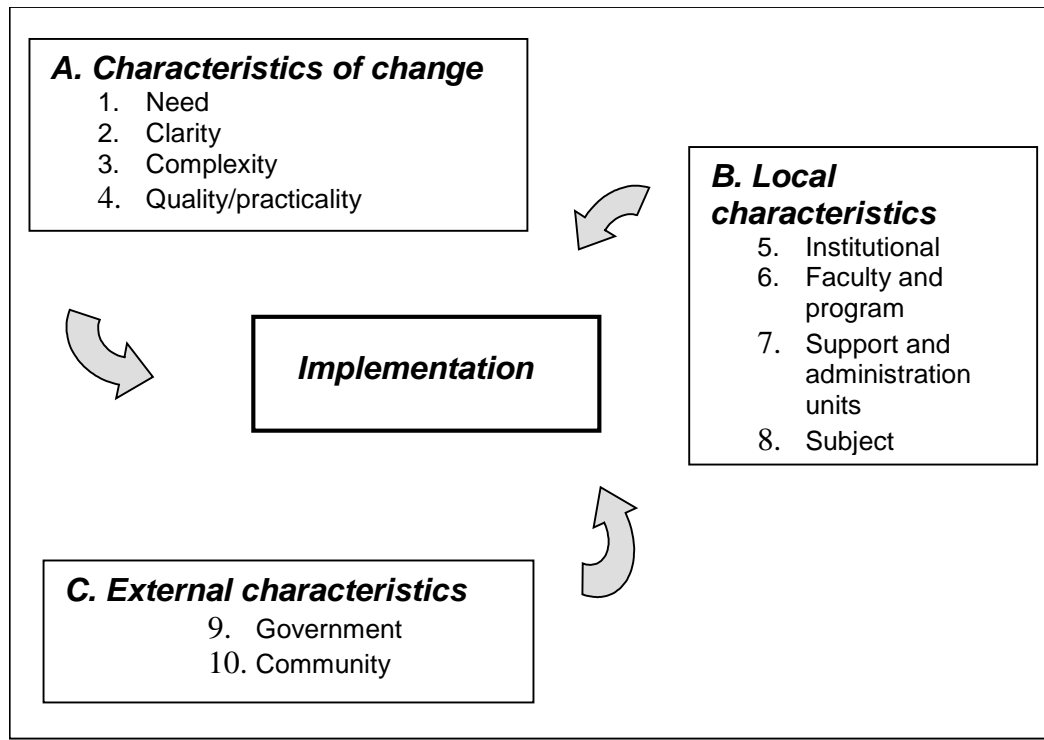
For this study, the researcher deemed Fullan's model, which focuses on the process of change and the impact of change agents during implementation, to be the most pertinent component of the toolbox to frame the discussion. Since Fullan's focus is on the school system, the model was adapted to suit the university system. In the local characteristics stage of his model, Fullan mixes system levels (district and community) with individuals (principal and teacher), which does not reflect the complexity of higher education, where the system levels include the institution, the faculty, the department, and the subject. At the individual level there are more key people involved including the executive of the university, the Dean and executive of the faculty, the head of department, the subject coordinator, the tutors and most importantly, the students. The adapted model and its implications are discussed further in this chapter.

The model provides a simplistic view of the complex change process, a fact acknowledged by Fullan (2001b). Models can identify the components of the system but not all the variables that impact on it. Fullan (2001b) expands on the factors to provide further variables and then provides a chapter on each of the key change agents in the school system. The simplification can ignore the role of other parts of the system in shaping the implementation. This case study has investigated the process of implementation of the first year of a new degree in a distributed learning context.

The South Coast implementation is discussed through the framework of Fullan's model as a process of change in relationship within the context of the institution.

7.5.1 Adapted model for implementation

Nine key factors are identified in Fullan's interactive model, in three major categories: the change characteristics, roles at the local level, and factors that are external to the institution (Fullan, 2001b). Figure 7.1 adapts this model to provide a framework to discuss the implementation of the South Coast initiative. Fullan asserts that the change characteristics in the first category carry over from the initiation stage and their lack of resolution becomes more obvious during implementation (Fullan, 2001b). In this study, the context of change was explored through a description of the initiation process in Chapter 4. Chapters 5 and 6 investigated the implementation. The model explores this relationship further by linking the initiation and implementation.



(adapted from Fullan, 2001b, p72)

Figure 7.1: Model for implementation in higher education

A. Characteristics of change

1. Need for the innovation

The need for the new venture may not be seen as a priority and Fullan observed, “teachers, for example, frequently do not see the need for advocated change” (Fullan, 2001b, p75). The preparation for the new campus occurred in a higher education context of change driven by political and economic pressures for accountability and quality assurance, accompanied by a reduction in funding. One avenue the University of Wollongong pursued to increase funds was to establish a satellite campus, meeting the government agenda of increasing access to tertiary education for rural, remote and equity students. However, there were other imperatives driving the decision, and these were identified through the perceptions of the stakeholders. The perceptions of the rationale for the South Coast initiative were multi-faceted, as discussed in Chapter 4. They included opportunity to:

- Access growth funds.
- Improve educational equity and access.
- Claim the South Coast market.
- Improve teaching and learning through increased flexibility, supported by technology.
- Develop better relationship with TAFE and schools (with the long term aim of increasing student numbers through development of a lifelong learning focus).
- Provide employment.
- Retain students in the local community.

However, the need for the innovation was not disseminated well within the institution and there was resistance to the change within the faculty when establishing the degree.

2. Clarity of the task

A common problem in the change process is in the clarity of the vision; that is the goals of the innovation and the means by which they will be achieved (Fullan, 2001b). Whilst a need for the South Coast initiative was identified through the perceptions of stakeholders in this study, the organisational focus during the initiation and adoption phases was on the structures and processes to ensure that funding was secured, that technology infrastructure was developed and that partnerships were in place.

The vision and strategic planning were in evidence, but at the grass roots level there was a lack of shared ownership evident at the faculty and work unit level. For example, when a meeting was held to determine the site for the interim campus, only two of the five people present agreed, yet the decision was made to continue with the location. Another example was that, despite the identified need to incorporate flexible teaching and learning methods at the interim campus, in the early years much of the teaching replicated traditional campus-based methods. In later years as the academic staff began to develop an understanding of flexible approaches to teaching and learning, they trialed alternate methods, such as interacting through videoconferencing.

The literature on educational change identifies the difficulties of initiating change, and Fullan (2001b) argues that the main dilemma lies in engaging everyone in the initiative from the beginning and getting started. He suggests that ownership will develop over time provided the ideas for the initiative are good and the people involved “have the capacity and opportunity to make informed judgements” (Fullan, 2001b, p67). Eckel, Hill, & Green (1998) in their comprehensive research on leadership and institutional change, also caution that: “Key stakeholders must have input into the change process and believe their contributions are valued” (p9).

During the early years of the interim campus the Head, Graham Park Campus became a champion of the initiative, but he pointed out the difficulties he had in engaging the academics at the Wollongong Campus in expanding subject offerings for students. He highlighted a wider belief amongst academic staff that the interim campus was draining funds from the main campus, a serious concern in times of reduced funding. He also instigated ad hoc procedures to clear impediments rather than work to change established policy and procedures.

This meant that when the new centres and campus opened some issues had not been identified or addressed in policy and practice, such as procedures for distribution of identification cards and textbook distribution. The project might have benefited in the early years from a clearer vision of what off-campus teaching and learning could be like, and better marketing and dissemination of information about the initiative to the wider campus community, a move towards building of shared vision and developing ownership which would be required in the implementation stage (Fullan, 2001b; Senge, 1992).

For the subject developers in the Faculty of Arts, the means to achieve the goal of the new degree became clearer after the meeting with the Pro-Vice Chancellor (Academic) described in Section 5.4.3. The Pro-Vice Chancellor (Academic) was able to articulate her vision to address the concerns the developers expressed. The actions taken following this meeting, including the appointment of a champion within the faculty (the Head, South Coast Project (Arts)) and the resource allocation to support the initiative, meant that the group had ownership of the project and incentive to move forward to initiate the subject development process. They understood their role in the process and were able to work collaboratively towards the goal.

Previously, the academics resisted the move to establish a flexible, interdisciplinary degree, but many of the problems at the root of resistance were identified and addressed when the new head was appointed to lead the South Coast degree. The members of the South Coast Project (Arts), through the leadership of the Head and collaboration with support units on campus, developed a shared vision for the degree and its implementation. Through these efforts, individuals were able to focus their energies, clarify and extend their own vision for the degree and become committed to improving aspects of teaching and learning, all components of 'personal mastery' (Senge, 1992).

During implementation, the clarity of the task was again problematic as the new centres opened and other people became responsible for aspects of the implementation. For some subject coordinators, who were not members of the South Coast Project (Arts), the vision of teaching and learning on the South Coast was unknown. Some were ill-prepared for the new venture, unfamiliar with student-centred approaches to learning, and the available technologies, and uncertain of their role. The students and the tutors, also new to the distributed learning environment, expressed uncertainty about flexible and student-centred approaches to teaching and learning and concern at the lack of clarity of their roles in the new environment. The need to clarify the goals for the innovation to new stakeholders is critical throughout the process, and is related to the complexity of the task (Fullan, 2001b).

3. Complexity of the innovation

Complexity is interpreted as the degree of difficulty and the depth of change a person must make to implement the innovation and this can vary depending on where the person or group starts. Adapting the processes and structures of the university to meet the needs of the people involved in the new campus and access centres required a great deal of planning by many diverse groups within the institution. Evidence for the complexity of the task is demonstrated in Figure 4.1, which provides an overview of the committee structures of the institution, and in the discussion of the roles of the various groups provided in Chapter 4.

Communication between the many work units and sub-units proved challenging as it is in any large organisation (Schein, 1996; Senge, 1992). The intervention of the Project LEAD coordinator as change agent was described in Chapter 4, and her role improved some aspects of communication particularly through developing new relationships across work unit boundaries during the team learning process initiated in some of the workgroups (Senge, 1992). During implementation, the complexity of the task was revealed through the difficulties tutors and students encountered in gaining identification cards. This required collaboration across a number of workgroups to resolve the problems.

4. Quality and practicality of the program

The quality and practicality of the initiative is largely determined by the attention paid at the adoption stage and the preparation in terms of planning and resource allocation for the implementation. For the South Coast the interim campus was operating within two months of the announcement by the Vice Chancellor in December 1992. With many academics on leave for summer holidays during this period, there was little time for planning or reconceptualising teaching for the new centre, which may have affected the quality of the interim program. In 1997, funding approval for the new campus and centres provided the impetus for the Faculty of Arts to increase the pace of planning processes for the new degree, providing ample time to develop quality subjects for the new degree. However, at the implementation stage, new subject coordinators made changes to subjects, for example providing amateur videotapes of lectures, which were not part of the original design and were not viewed favourably by the students.

In addition, other members of the faculty and some students perceived the degree as 'second rate' because it was not the same as traditional on-campus teaching. Fullan (2001b) asserts that quality change can occur, even large-scale and complex change, but it is the actions of the people and their 'mental models' of the change that occur over time that have greatest impact. He stresses the need for "persistently working on multilevel meaning [of the change] over time" (Fullan, 2001b, p80).

B. Local characteristics

This part of the model identifies the structures in place in the institution and the role of the key people at each level in supporting the implementation of the new degree. It analyses the climate and culture for change and varies according to the strategies and support available in the institution.

5. Institutional

Planning for change is a complex business in any setting, but in the University of Wollongong environment the complexities were even greater due to a move towards a more corporate management model, driven by external policy pressures for increased quality and accountability (Coaldrake & Stedman, 1999; Eckel, Green et al., 1999; Fullan, 2001b).

Coupled with the increased student numbers for economic and equity reasons, the university needed to address ways to implement the desired changes systematically. The institution placed responsibility for the planning within the support infrastructure and, within the committee structure of the institution, which provided the systematic planning that was required to make changes quickly in response to the political agenda. However, these top-down decisions were imposed, often with inadequate consultation and poor dissemination, contributing to an increased resistance by academic staff. This is a common problem in higher education identified in the literature (Collis & Moonen, 2001; Fullan, 2001a; Hannan & Silver, 2000; Kezar & Eckel, 2002).

The planning processes were established through the support infrastructure within the university, including the Academic Registrar's Division for administration, the Library, Information Technology Services (ITS), and the Centre for Educational Development and Interactive Resources (CEDIR) (See Figure 4.1). Although the administration and support groups were represented in the committee structure of the institution, more representation at the faculty level may have improved the communication process. The institutional committee structure meant that some groups worked towards achieving goals in isolation and this compounded the communication problem among the many disparate groups involved in the planning process.

Two ways in which good communication was achieved were through the Project LEAD initiative and the Educational Delivery Information Team (EDIT). The Project LEAD initiative, involving an external consultant, aimed to change the culture of the organisation, through developing teamwork skills across workgroups and across the traditional boundaries between academic and general staff. Project LEAD moved the university towards reaching its goal of setting change strategies in place for alternative teaching and learning methods. It assisted many of those involved to come to grips with the change process (Argyris & Schön, 1996; Fullan, 2001b). As the coordinator was not involved in the politics of the institution, she was able to move between individuals and groups, bring them together, and work with them to identify and solve concerns to assist with the creation of action plans to move the process forward.

The conceptual framework for Project LEAD drew on the theoretical literature of organisational learning (Argyris, 1992; Argyris & Schön, 1996; Senge, 1992). The project was based on the premise that organisational learning happens when individuals inquire into “a problematic situation” on the organisation’s behalf and they:

experience a surprising mismatch between expected and actual results of action and respond to that mismatch through a process of thought and further action, that leads them to modify their images of organisation or their understanding of organisational phenomena and to restructure their activities so as to bring outcomes and expectations into line, thereby changing theory-in-use. (Argyris & Schön, 1996, p16).

By working closely with individuals in different workgroups and teams, the coordinator was able to help them identify the “espoused theory” in the organisation so they could align their outcomes and expectations and change the “theories-in-use”, and thus support the change process (Argyris & Schön, 1996, p13).

The Educational Delivery Information Team spanned the boundaries of many of the workgroups in the university (see Table 4.13), and though it did not include any faculty representatives, they were consulted. The team was engaged in developing a system for effective information management for flexible delivery that would support teaching and learning. The team developed strong levels of trust among its members, resulting in shared understanding of the different roles their units played in the university, as well as ways to share information across the units. These strategies, according to Senge (1992), are the key to achieving success in a learning organisation.

The Educational Delivery Information Team achieved success through identifying the major problems across the units and then finding ways to address them. They showed that shared understanding and information-sharing were the keys to success in the planning process, confirming Senge's proposition that team learning assists people to go beyond individual perceptions to view the bigger picture (1992, p12).

They set up many of the infrastructure systems required to support teaching in the distributed learning context. The result was an improvement to the system, however the formalised processes meant an increased workload for the academic staff as the systems required additional administrative responsibility. Informal systems were replaced by formal requirements to meet a quality assurance process. An example of this was the requirement to complete a lengthy online application form to set up a subject site in the Learning Management System, which previously required a telephone call to the administrator. The informal system took little time for academic staff to initiate, but from the institutional perspective provided no records of methods of use and no statistical information about who was using the system.

By comparison, the South Coast Curriculum Committee, which included some members of EDIT, did not achieve the same level of success in team learning, but worked towards similar goals. This group spanned the boundaries of academic and general staff and whilst many members of the group were able to undergo the transformation required to change their mental models of how the organisation functioned, others were not. Institutional politics and individual resistance to change meant some members did not engage in the team learning process, nor share the commitment to the team approach (Senge, 1992).

Leadership for change is required at all levels of the institution, a notion highlighted in the literature (Eckel, Green et al., 1999; Fullan, 2001a; Ramsden, 1998; Senge, 1992). For the University of Wollongong, a change agent had a role in supporting the development of this leadership through working with teams and individuals in the process.

The Project LEAD coordinator played a significant role in the process at all levels, enabling the South Coast Curriculum Committee, the Educational Delivery Information Team, and the South Coast Project (Arts) team to identify strategies to move the groups towards achieving their goals. The coordinator also played a significant role in working closely with the facilitators of the teams to make the planning process explicit, to encourage a shared vision through improved communication, and to ensure that the teams were action-oriented (Curtis, 1998a, 1998b).

The importance to the institution of the initiative was highlighted through the support infrastructure, the committee structure, and through reports and strategic planning documents. However, there was a lack of understanding about the impact on teaching and learning at the grass roots level, a common misunderstanding reported in other studies (Eckel, Green et al., 1999; Taylor, 1999b; Taylor & Blaik, 2002).

6. Faculty

The responsibility for curriculum development lay within the faculty structures. The corporate model was at odds with the more collegial model within which the Faculty of Arts operated before the arrival of the new Dean in 1998. Whilst it was clear to the stakeholders *what* was to happen, it was unclear *how* it was to happen, resulting in a lack of enthusiasm from those meant to be implementing the change at the faculty level, a problem identified in other studies of institution change (Eckel, Green et al., 1999).

Within the Faculty of Arts, the lack of ownership and understanding meant the development of the detailed degree structure was delayed, whilst the academic staff sought clarification about designing subjects for the new learning environment. At the faculty level, some members of the Flexible Delivery Bachelor of Arts Working Party resisted the initiative. They took a considerable time to make the critical decisions about the degree structure, effectively stalling the process for several years. The resistance was not to the establishment of the new campus and access centres, but to the structure for the new degree, to the use of technology in teaching, and to the need for staff development generally.

Individuals and subject development teams continued to trial new teaching and learning methods incorporating educational technology within their on-campus subjects and at the interim campus, despite the resistance at the broader level. The Pro-Vice Chancellor (Academic) provided funding to support these trials through the South Coast budget. In a research study on innovation in higher education, Hannan and Silver (2000) point out that whilst funds can facilitate such action they are not the key motivational factor. They identify the reasons innovative teachers will take on such a challenge:

It seems that innovators will take on extra work, learn new skills, court unpopularity with other staff and take risks with their own careers so long as they feel that by doing so they can improve the quality of their teaching, and/or, if they feel that circumstances are such that they have no choice but to depart from their old methods to cope with new demands. (p32)

The subject developers were motivated by both of these factors, despite the resistance within the faculty. The implications for them of their involvement included making decisions about:

- identifying with their discipline and the interdisciplinary degree;
- loyalty to the academic program and working outside their program;
- making teaching a priority when research was considered a priority for promotion and tenure;
- contract versus permanent employment;
- autonomy in subject development versus working with support staff; and
- use of technology in teaching versus traditional teaching methods.

These pressures meant the group were working outside the norms of the faculty, without the support of their academic colleagues, many of whom resisted the changes that were occurring. The planning process at the faculty level meant that initially some of the staff involved in subject development did not have ownership of the project and responded to this with resistance. There was subtle undermining outside the project group, such as discussions about the degree being second rate, which continued throughout the development process.

The imposed initiative occurred at a time of instability in the Faculty of Arts with changes in leadership, restructuring, and reductions in the faculty budget. These factors, which influenced resistance in the Faculty of Arts, are common ones identified in the literature.

A perceived lack of consultation (Fullan, 2001b; Senge, 1992), poor understanding of the teaching role of academics by some administrators and support staff, implications of institutional policy changes at the faculty level (Trowler, 2002), and an opposition to new management practices (Senge, 1992) meant there was resistance to implementing the change within the faculty. Academic autonomy was also threatened by the perceived imposition of support staff in subject development, a difficulty experienced in similar initiatives (Collis & Moonen, 2001; Taylor, 1999b). These perceptions may have been influenced by poor communication about the initiative within the faculty itself, support for the status quo and other factors such as increased workloads, or related to politics in the faculty at the time which meant that the level of importance was low relative to the other changes occurring.

Other issues, which influenced the faculty included: expectations of loyalty to programs and disciplines (Becher, 1989; Taylor, 1999b), declining staff numbers (Anderson et al., 2002; Coaldrake & Stedman, 1999), and the imperative to make research a priority over teaching because of apparent rewards and incentives (Hannan & Silver, 2000; Ramsden, 1995; Taylor, 1999b).

The issue of program and disciplinary loyalty is highlighted in the literature of higher education as related not only to the culture and identity of a discipline, but to the identity of the individual academic (Becher, 1989; Clark, 1984; Taylor, 1999b). Furthermore, Becher (1989) contends that “to be admitted to membership of a particular sector of the academic profession involves not only a sufficient level of technical proficiency in one’s intellectual trade but also a measure of loyalty to one’s collegial group and of adherence to its norms” (p24). For the staff here, an adherence to the often unstated norms of the faculty, or the ‘web of rules’ which are “tacit, based on tradition or untested belief” was a challenge (Taylor, 1999b, p84). For the Faculty of Arts, a number of the South Coast developers were contract staff, keen to move into permanent positions, and strategically included in the process to improve their employment opportunities. Student numbers were increasing and this affected workload within the programs.

Funding constraints meant that the number of new permanent positions was limited across the faculty and a culture of program loyalty meant a struggle for positions within individual programs. The new or contract staff may not have even been aware they were 'breaking the rules' through their involvement in the interdisciplinary South Coast degree.

In addition, the new degree incorporated a multidisciplinary structure, and included an interdisciplinary focus in subject development. A multidisciplinary structure involves a number of experts from different disciplines working side-by-side. Interdisciplinarity assumes an integration and synthesis of disciplinary perspectives (see Klein, 1990, 1994; Newell, 1994). Although the faculty already included some interdisciplinary majors, some longer-serving members of the faculty refused to be involved in the South Coast degree because of their beliefs in their own discipline. Becher (1989) explains: "When people's ideological identities are at stake, passions run deep" (p98).

A lack of reward and recognition within the formal structures of the institution is identified as one of the biggest obstacles in the path of innovation in higher education (Hannan & Silver, 2000; Silver, 1998). In particular, a focus on teaching rather than research is perceived as problematic for academics seeking tenure or promotion, despite the institutional policies and practices which challenge this assumption (Blau, 1973; Coaldrake & Stedman, 1999; McInnis, 2000; Ramsden, Margetson, Martin, & Clarke, 1995). In this case, the University of Wollongong had made changes to policy aspects of promotion and tenure to acknowledge the importance of teaching, however some academics did not believe these had become practice.

Resistance to the use of new technologies for teaching was another common concern across the sector. A healthy cynicism for unproven technologies spans academic culture, with little research to support the benefit of its use in higher education (Gunn, C., 2000c; Noble, 1997, 1998a, 1998b; Panitz, 1999). There was also a stated fear among academics that technology would replace teachers, combined with other concerns such as "anxiety, lack of time, lack of resources, and lack of support" (Taylor, 1999b, p87).

When discussing the changes required by academics at the Logan Campus of Griffith University, Taylor (1999b) pointed out that despite the dominance in discussions about using technology, the real issue was "designing and developing environments in which high quality learning is likely to eventuate" (p36).

Resistance is not necessarily a negative action (Fullan, 2001a; Schön, 1967; Taylor, 1999b). It is an important stage of making sense of change, and resisters often have important questions to be dealt with in the change process. Through their resistance, members of the Faculty of Arts highlighted some of the major issues that needed to be addressed if the initiative was to be successfully implemented, many of which had been overlooked at the institutional level because of a lack of consultation. For any imposed innovation, those who are implementing the project need a sense of ownership and shared vision for what the innovation will become (Fullan, 2001b). Through the South Coast Curriculum Committee and the South Coast Project (Arts), some members developed this sense of ownership and these members took responsibility for the actions required to ensure the success of the change effort. They did this with the support of the leadership required at the institutional level, the faculty level, and the team or group level. Effective leadership to support this change in culture was needed, and this was evident in the final stages before implementation.

When the Pro-Vice Chancellor (Academic) and the Dean appointed a champion for the Arts degree within the faculty, the new Head provided the leadership needed to move the project forward. She used a team approach to staff development and subject development that assisted the group to develop the cross-disciplinary relationships necessary to develop a shared vision for the degree.

The new Dean also provided much needed support and leadership for the initiative, through her attention to the project, support for the authority of the Head, and through attendance at the meetings and the staff development activities in curriculum development for the degree. She explicitly stated the importance of the project to the faculty and acknowledged the work of those involved throughout the first year of implementation.

7. Support and administration units

The role of support units within the university has become more significant in recent years. This can be attributed to the changes in the ratio of staff to students, and the nature of students in a mass system, but is also related to moves towards more student-centred learning environments and the demands of governments, institutions, and students to improve the quality of the learning experience.

Support units for students and staff in this context included Learning Development, the Library, Centre for Educational Development and Interactive Resources, and Information Technology Services as well as administrative units such as Academic Registrar's Division and Personnel. In a traditional university context, academic staff may see many of these units as peripheral to the 'real' work of teaching and research. However, in a distributed learning context, the role of the units became significant during the planning and implementation of the new degree.

Whilst there has been an increased focus on teaching and learning in the disciplinary journals in recent years, the growing body of research on the role of support units often sits outside or on the margin of the 'real' activity of teaching. Studies are reported in conferences, journals and reports related to:

- libraries (Dorskatsch, 2003; Lebowitz, 1997a; Mackay, 2001; Raspa & Ward, 2000);
- student affairs and learning support (Promnitz & Germain, 1996; Skillen et al., 1999);
- staff development (Gray & McNaught, 2001; Lefoe, Albury et al., 2001; Porter, 2001); and
- administration (Coaldrake & Stedman, 1999; McInnis, 1998; Passaro et al, 2003).

However, disciplinary research on teaching and learning also needs to expand to examine the collaborative teams required to meet the increased demand for quality and accountability and the roles that other units play in supporting new directions in teaching and learning (Cook-Sather, 2001; Gunn, Lefoe, Graham, Left, & Smith, 1999; Hughes, Hewson, & Nightingale, 1997). The need to move from 'lone ranger' innovation to working in teams requires letting go of mental models of autonomous subject development to finding ways to collaborate to institutionalise new practices, particularly when flexible modes of delivery are used (Taylor, P. G., 1998, p269). In an earlier report, Taylor, Lopez and Quadrelli (1996) confirm this view: "Teaming may change work practices and roles, as new partnerships are forged across what were once disparate domains in the institution" (p101). Taylor and Blaik (2002) identify the important role general staff, particularly the library and technical staff, played in supporting student learning in the report of lessons learned during the implementation stage of the Logan Campus of Griffith University.

For this study, collaborative efforts between members of the support units and the faculty academics were identified in Chapter 5 as an important component of reconceptualising the new degree. The collaborative roles of the Outreach Librarian, the Educational Developer (Arts), the Learning Developer (Arts) and the Project LEAD Coordinator enhanced the development process through an integrated approach to staff development, working within South Coast Project (Arts) group as change agents in the teaching and learning process. The roles extended during the implementation process as the Librarian worked to improve services for students, and skill development; the Educational Developer (Arts) worked with tutors and subject developers to improve teaching practice and the use of educational technology, and the Learning Developer (Arts) worked with students to improve their academic skills. Enhanced supports to improve the areas are identified and this includes integration of academic skills, information and computer literacy skills within subjects, which will require further collaborative work for the redesign of subjects.

The Centre Coordinators also played a major support role, addressing many of the concerns of tutors and students through resolution of the difficulties with communication between their centre and the Wollongong campus. They worked hard at improving administrative and support procedures, and at developing a positive climate in the small centres.

For administration units, the lack of collaboration with academic staff highlighted the need to understand the roles of other workgroups when changing practice and procedures that will affect their work, for example when establishing timetables. The need for a better understanding of the pedagogical and technological needs for off-campus students will assist to improve the procedures for students and tutors. Ensuring that the tacit knowledge of administrative practice in the University is documented will also improve practice for the Centre Coordinators and tutors.

Relationship building among the groups so that they each understand the roles the others play in supporting student learning is essential to improve the support structures within the university. The interdependency of teaching, learning and administration represented in the findings of this study in Chapter 6 highlights the need for communication and collaboration between all of the units within the university system to improve the learning experience for students.

8. Subject

Planning for change at the subject level occurred within the framework of designing the new degree. The South Coast Project (Arts) group provided a supportive climate for the subject developers in which they could talk about new teaching methods, the successes they experienced, and the challenges they faced. The members were able to change their mental models of teaching and learning to incorporate a team approach to subject and curriculum development, and to acknowledge that technology may support the process. They also developed a level of trust with the curriculum support staff, which allowed them to span the boundaries of the workgroups and the faculty. This allowed them to work with the support groups in the university in professional and subject development activities.

At the implementation stage subject coordinators, who were not members of this group, did not share the vision of the subject developers. The reality of the workload involved meant that even some members of the initial group were not able to allocate the extra time required to take on the new responsibilities the role required in a distributed learning context. Two subject coordinators pointed out that they had allocated a great deal of their time developing the subject during the initiation stage, and that they now needed to focus on their research. Another coordinator who had not developed the subject also saw his role as limited to the administration of the subject. The coordinators saw implementation as the role of the tutors, who took responsibility for ensuring the success of the subjects at the centres.

The role of the tutors was critical to the success of the venture. Many were willing to take any necessary action required to support student learning. Despite uncertainties about their roles and responsibilities, their enthusiasm for the job was recognised by the students and subject coordinators.

The role of students in the first year of this degree was fundamentally different to that of students on campus. They had no role models in terms of other students, although the Shoalhaven Campus had a small number of part-time students who were completing some subjects locally but enrolled in Wollongong. Their roles emerged as the year progressed and they determined themselves what being a student in a distributed learning context meant. They appreciated the small number of students in their tutorials and, although they expressed frustration at times about assessment tasks, workload and inadequate communication, they accepted that the degree was new and would have some teething problems.

C. External factors

9. Government funding

Changes in policy in higher education, leveraged with allocation of resources, meant that funding was available to establish satellite campus initiatives throughout Australia, at a time of reduced government funding for such institutions (Department of Employment Education and Training, 1990; National Board of Employment Education and Training, 1990, 1995).

Many universities took advantage of the opportunity and this was evidenced by the growth of such campuses throughout Australia, for example the Logan Campus of Griffith University, Queensland, the Rockingham Regional Campus of Murdoch University, Western Australia and the Central Coast Campus of Newcastle University.

10. Community support

There was evidence for strong support for the initiative from the local communities. For example, the Shoalhaven Council instigated the idea of a new campus at a meeting with the Vice Chancellor in 1992. The Vice Chancellor supported the idea and identified funding sources. Local community support for the initiative expanded to include Bega and Batemans Bay local councils for access centre development. All local councils provided support through additional funding for the initiative.

Both institutional and faculty leaders at Wollongong indicated that the South Coast initiative had a long-term goal of improving teaching and learning, through the provision of a project space where new teaching and learning methods could be trialed. They indicated a desire for these new methods to be incorporated into campus-based teaching and learning, to move towards a more learner-centred curriculum. However, the educational reform literature is full of reports of failed changes, or those where the “innovation was adopted on the surface with some of the language and structures becoming altered, but not the practice of change” (Fullan, 2001b, p6). The scope of this thesis cannot investigate whether or not the long-term goal was achieved, as a longitudinal study would be required to determine the impact. However, the initiative provided motivation and a space to start this process.

Change is not a linear process and the decisions on policy and procedures made in the initiation stage were revisited and revised during the implementation stage, and this will continue until the institutionalisation stage occurs or the program is withdrawn (Eckel, Green et al., 1999; Ellsworth, 2000; Fullan, 2001b). In order to support the following years of implementation and the move towards institutionalisation a framework to support the distributed learning context is described.

7.6 Emerging framework for implementation of a supportive distributed learning context

The findings from the case study have led to the development of a preliminary framework for implementation of a supportive distributed learning context. The framework is based on the notion that the culture and the milieu of the institution are important factors when initiating new contexts for teaching and learning. For an innovation to take place in a traditional campus environment the lecturer may not need to collaborate with others if they have the ability to bypass procedures that may impede the innovation. However, in an off-campus situation many other work units of the institution may be involved, as they were in the establishment of the new campus and access centres on the South Coast.

New ways of thinking and new ways of working together are required together with an overview of the system to anticipate changes required to policy and procedures so that new processes are developed. Ultimately, the actions of the people implementing change determine the success of an innovation. The actions of individual people enable the mechanisms for change which shape the structures of the institution to support the distributed learning context, as identified in Figure 7.2. The framework demonstrates how this occurs, but reinforces the notion that it is a two-way process since the structures may also shape the mechanisms that enable action to be taken. It draws on the learning organisation work of Senge (1992; Senge et al., 1999), the educational change work of Fullan (1993; 2001a; 2001b) and Taylor (1999b), the leadership work of Ramsden (1998) and Eckel and Associates (1999, and incorporates the findings of this study.

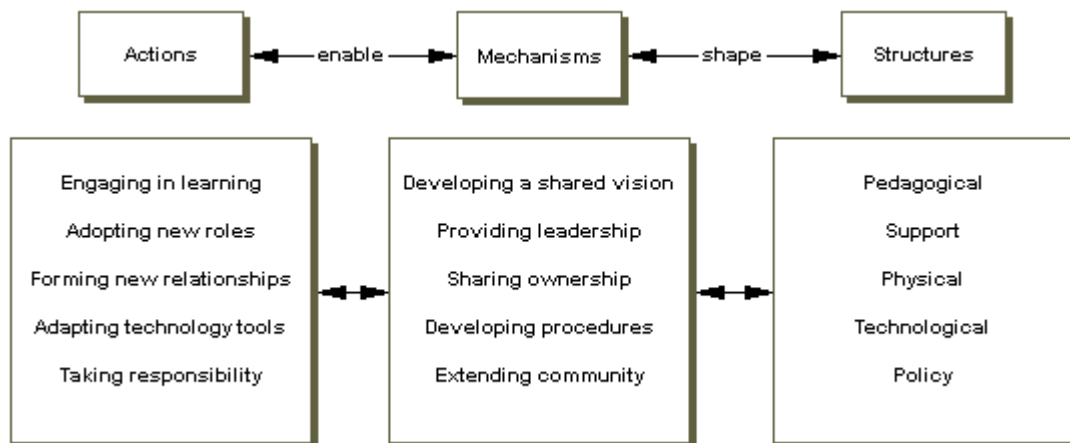


Figure 7.2: Framework for implementation of a supportive distributed learning context

7.6.1 Actions for change

In a change environment the actions individuals take will determine the success of the change activity. The actions required by people in this environment include engaging in learning, adopting new roles, forming new relationships, adapting technology tools, and taking responsibility. *Engaging in learning* implies a commitment to being open to learning new ways of doing things. It does not suggest just gaining more information, but includes learning about oneself and others. It is aligned with Senge's concept of "personal mastery" that "fosters the personal motivation to continually learn how our actions affect our world" (Senge, 1992, p12). *Adopting new roles* recognises that the roles people play in an organisation are continuously changing as the context changes. It does not suggest throwing away old roles, but adjusting roles as contexts change over time, and allowing perceptions of roles of others to adjust over time as well. This can occur through cross-unit collaboration and project teams when "differences in perspectives can become assets, as can differences in expertise" (Taylor, 1999b, p54). However, it requires "genuine attempts to communicate" in order to make sense of the values and understandings of others and therefore of oneself (Taylor, 1999b, p54).

Forming new relationships acknowledges the need for people to look beyond their immediate work unit in the institution, to value the work of others and to collaborate with others to achieve goals. It needs to occur from the beginning of the project rather than later, as it takes time to achieve. It can occur at the dyad level but also needs to occur at the team level. It is aligned with Senge's notion of 'team learning'. It entails people "think[ing] insightfully about complex issues", and planning for "innovative, coordinated action" (Senge, 1992, p236). New relationships provide opportunities to look beyond individual perspectives to see the wider context and to take action to enable planning to occur.

Being able to *adapt technology tools* reflects the findings of this study that the use of technology is an important component of a distributed learning context required to overcome the challenge of distance. However, the actions of individuals determine the best use of the tools to support the environment. It requires multiple levels of development including skill development, examination of best practice use, and ultimately the ability to adapt tools to meet a specific need within the constraints of time and resources. It requires the shifting of mental models to explore new ways of working. Collaboration across work units can assist this development.

Taking responsibility at the individual level is an important action for people during the change process. It is easy to lay blame on others for what does or does not happen in a changing environment, instead of examining "how our own actions create the problems we experience" (Senge, 1992, p12). It is the concerted actions of individuals who take responsibility that determines the success or failure of an initiative. This requires thinking at the systems level and taking action at the individual level.

7.6.2 Mechanisms for change

The actions described provide avenues to enable the mechanisms to shape the structures.

Developing a shared vision recognises the importance of commitment to achieving a goal over the long term. Shared vision is a “force” that “creates a sense of commonality that permeates the organisation and gives coherence to diverse activities” and “provides the focus and energy for learning” (Senge, 1992, p206). A shared vision must start from the “leader’s personal perspective” not a conglomeration of multiple views since this can result in generalised statements that “please everybody and excite no-one” (Ramsden, 1998, p142). A vision is effective when it arises “from creative tension between the goals and hopes of the academic leader and the desires of members of the work unit and other interested parties” (Ramsden, 1998, p142), a belief shared by Fullan (1993). Vision is shared when there is a clear reason for doing things differently and the change agenda “makes sense and does not assign blame”, for example by focussing on improving learning rather than improving teaching (Eckel, Hill et al., 1999, p2).

Providing leadership relates to the need for leadership to achieve change. People need to know more than the goal of change, they need to know the means to achieve the goal and this requires leadership. Leadership is not contained within the realm of the executive of the institution for “leadership must be cultivated deliberately over time at all levels of the organisation” (Fullan, 2001a, px), a notion supported by others (Ramsden, 1998; Senge, 1992). Collaborative leadership is required that identifies and empowers “talent across campus and at a variety of levels” (Eckel, Hill et al., 1999, p6). Another important component is leaders who develop structures to support the change effort through incentives and provision of resources (Eckel, Hill et al, 1999).

Sharing ownership for change acknowledges that for change to be effective both top-down and bottom up strategies need to be applied through a “two way relationship of pressure, support and continuous negotiation” (Fullan, 1993, p38). This mechanism reflects that control by management in complex organisations does not encourage change as much as local responsibility for change. This occurs through “unleashing people’s commitments by giving them the freedom to act, to try out their own ideas and be responsible for producing results” (Senge, 1992, p287-8).

Developing procedures requires that the tacit knowledge of individuals in the organisation becomes explicit to other members through collaboration and action. When individuals are aware of the complexity of a task they are able to develop effective procedures to plan and manage the task. In a distributed learning context explicit, documented procedures are a necessity.

Extending community incorporates the notions of 'community of practice' (Lave & Wenger, 1991; Wenger, 1998), 'professional learning community' (Fullan, 2001b; Hord, 1997) and 'learning organisation' (Senge, 1992). It implies moving from individuals working autonomously to achieve personal goals to working in formal or informal groups or teams to achieve common goals through sharing expertise and experience. Such groups may be effective within individual work units, but in a distributed learning context this collaboration needs to extend across the work units engaged in the innovation.

7.6.3 Structures for change

Pedagogical structures are those related directly to teaching and learning. They include such things as planning, designing, coordinating, evaluating and teaching courses and subjects. They are often part of the faculty norms, the way things are done in a faculty or work unit, and include the tacit as well as the explicit knowledge.

Support structures include those designed to provide support to teaching and learning. They can include support units for teaching and learning and the library, as well as administration units responsible for enrolment and the management of student information.

Physical structures are those in which teaching and learning occur. They may include buildings and other spaces where teaching and learning occur such as classrooms, libraries and videoconference rooms and even 'virtual' class spaces such as online subject sites.

Technological structures are those designed to support the physical structures. They include the computer network infrastructure, the technology available in the teaching space, and other technologies such as videoconference units and learning management systems.

Policy structures in higher education may be determined at the level of government, the executive of the institution or within the institution through the faculties and committee structures. However, policy is interpreted, adapted and implemented in different ways at all levels of the institution for it is also made as “practitioners go about their daily business, whether they are aware of it or not, as recurrent practices, sets of attitudes and assumptions are realised in specific contexts” (Trowler, 2002, p3). It is at this level that policy can be shaped by the actions of people and the mechanisms in place just as the policy itself can influence the mechanisms in place and the actions of the people.

The framework provides an overview of the characteristics that provide a supportive context for distributed learning. It requires a synergy between individual commitment, as demonstrated by the actions, and institutional commitment, as demonstrated by the structures. To support this synergy, the mechanisms provided need to be established and supported at all levels of the institution.

To demonstrate the effectiveness of the framework an example is drawn from the case study. Since the framework demonstrates ideal conditions, the example will identify the aspects that worked well and also changes required to support the process, as the individuals and the institution learned to do new things in new ways.

Individuals in the Faculty of Arts were involved in the planning process for the new degree. Each person needed to *engage in learning* about new aspects of the teaching role as they identified that a student-centred learning environment would best achieve the goals of the new degree. This required each person to *adopt new roles*, to design their subjects in new ways and to see their roles as changing from transmitting information to students to facilitating student learning. To do this they *formed new relationships* across the programs of the faculty and with individuals in the support units, through the South Coast Project (Arts) group where they engaged in professional development activities. They *adapted technology tools* to meet the perceived needs of the students in the environment. They *took responsibility* for subject development within the new degree program after initial resistance.

The actions of the individuals were supported by the mechanisms, which developed over time. Initially there was no *shared vision*, with a culture of resistance within the faculty. However, the executive of the institution recognised the issue and through the appointment of the Project LEAD coordinator, was able to put mechanisms in place to support the planning process, in particular by organising opportunities for the resisters to voice their concerns. The appointment of the Head, South Coast Project (Arts) *provided leadership* for the group from within the faculty that allowed the group to *develop a shared vision* for the degree. She did this by focussing on the attributes of a graduate of the new degree, allowing people to think differently about teaching; that is to *engage in learning* about teaching and to include ways to *adapt technology tools*. The group *developed new procedures* for subject development that involved collaborative work with individuals in CEDIR to produce study guides and web sites. The group *shared ownership* for change through providing upwards pressure and continuous negotiation throughout the process with the Head and other work units within the institution. The group *extended their community* by working collaboratively across the faculty and with members of support units.

Through collaboration, the group were able to shape the structures of the institution to meet their needs. For example, they identified the importance of staff development activities for local tutors, thereby changing the current *pedagogical structures* of the institution, which originally did not provide staff development for on-campus tutors. Through their work with the Outreach Librarian, they were able to shape one of the *support structures* by identifying the need for students to access journals electronically, a concept that had been resisted previously in the faculty. By identifying the need for better access to technology within the Arts building, they were able to influence the *physical and technological structures* of the institution. Their plans for teaching and learning strategies to be used in the new degree and dissemination of the information to other workgroups meant they were also able to influence *the support, physical and technological structures* for the new centres as well. The Head was able to take the issues forward through the committee structures of the institution as needs were identified, assisting the group to shape *policy structures*, such as ensuring adequate resources were provided in terms of time, people and financial incentives for subject development.

Just as the actions of the individuals within the group enabled the mechanisms to shape structures, the framework also provides a way to discuss how the structures shaped the mechanisms that enabled actions for individuals during implementation, which demonstrates the constant tension among the three areas. The additional workload required by people implementing new subjects in the distributed learning context was not recognised in the *pedagogical structures* of the institution. Within the faculty allocation of workload the same time was allocated for administration as for an on-campus subject. This meant that subject coordination became an additional burden for these individuals since there was no time allocated, for example, for meetings with tutors. In addition, whilst *policy structures* concerned with promotion stated that teaching and learning were recognised as much as research, the perceptions of staff were that this was not the case. In particular, subject coordinators who had committed time to the development of subjects before implementation, and those who had not been involved during the development phase, identified that there was little incentive to allocate additional time to subject coordination. They were not willing to *adopt new roles or take responsibility* when the *pedagogical* and *policy structures* did not support it. The mechanisms to allow this reshaping of the structures to occur can only happen when individuals are supported in taking action to make the required changes, highlighting the interactive nature of the framework.

The emerging framework provides a structure to investigate the institutional organisation for implementing a context for distributed learning. It requires further investigation to determine its suitability for other institutional contexts.

7.7 Limitations of the study

The limitations of this study include the length of time for the study, the subjectivities of the researcher and the participants, and the limited generalisability of the case study to other settings. A limitation of this study is the short time frame for data collection since it was restricted to the first year of implementation for a single degree in the three locations and limited offerings of subjects. A longitudinal study of the implementation of the whole degree would provide further insights for improving processes and the future development of policy in the area, in particular to whether or not the degree is sustainable in the long term.

An interpretation of the case is provided through the observations and analysis of the researcher and the multiple perceptions of the participants. The researcher acknowledges her subjectivities as influencing the selection of the case studied and the research design, as well as the choice of data collected and the presentation and interpretation of the study. Furthermore, the researcher acknowledges her belief that there are “multiple perspectives of reality” (Merriam, 1998, p22).

The study is limited to the context of a specific undergraduate degree implemented at a satellite campus and access centres. Whilst some of the findings from the study may be transferable to other contexts, specific findings may be unique to the institutional context. The idea of ‘case-to-case transferability’ as suggested by Firestone (1993), contends that the reader makes the judgement about how components of the case are transferable or not transferable to their own situation. This can be done providing the case study gives sufficient detailed information through a “rich, thick description” (Merriam, 1998, p211) as has been provided in this study.

7.8 Further research

In the recommendations for a supportive context for distributed learning there were two areas for further research. The first was related to researching the time required to effectively coordinate an off-campus subject so that this is adequately reflected in the workload allocation for staff. This could examine the impact of teaching at satellite campuses, but may include offshore and off-campus students as well. The second area for further research is related to the examination of alternate models for professional development for full-time and sessional staff, in particular to find ways to support the development of communities of practice and the use of educational technology to support professional development. More broadly, further research is also required to examine the roles of collaborative teams required to meet the increased demand for quality and accountability and the roles that the professional staff in support units play in supporting new directions in teaching and learning. Finally, the emerging framework for implementation requires testing in other contexts to determine if the specific features provide a useful framework to discuss the change process.

7.9 Conclusion

This case study indicates that the distributed learning context is affected not only by the local implementation of teaching and learning, but also by the context of the wider university. Stakeholders believed the new centres should be seen to be treated as part of the university and their functions must be integrated with the policies and practices of the university. Policies and procedures of the university should respond to the changing context, and institutions might consider the impact on roles and responsibilities for those teaching and learning in new contexts.

When subjects were implemented off-campus, inadequacies in the processes and structures became more obvious to the stakeholders. Responding to the needs of stakeholders at satellite campuses and centres requires visible and coordinated action across the university to document procedures and develop policy to reflect the changing needs of the community. In addition, the increased workload of academic staff implementing such initiatives may be formally acknowledged and rewarded through such action. Policy change in institutions usually reflects the changing practice, and implementation of the recommendations drawn from this study will assist universities to ensure the long-term viability of such initiatives.

This study represents the first year of a new degree in a context for distributed learning. As such, it is a new context for all involved. The conceptions of what this means to students, tutors, subject coordinators and other stakeholders are emerging. The first year of such an implementation requires those involved to adapt and change their mental models to meet the needs of this emerging context. The success of the degree and indeed the new campus and access centres ultimately rests with the sustainability of the program over the long term. For this to occur attention needs to be paid to the whole system and the actions people within it take to enable the mechanisms to support teaching and learning in the distributed learning context.

