Organisational temporal landscapes and individual timescapes: experiences of time in an e-learning and e-mentoring project in a UK University Business School

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Contents

List of figures

List of tables

Glossary

EMPATHY	E-Mentoring for Professionals. This Project ran from 2002 – 2003.
EMPATHY Edge	E-Mentoring for Professionals – At the cutting edge. Project ran from 2003 – 2006.
EMPATHY Net-Works	E-Mentoring for Professionals – The Net Works. This project ran from 2006 – 2007.
ESF	European Social Fund
HUBS	Hull University Business School
Icohere	The virtual learning environment used for both e-learning and e-mentoring in the project. See www.icohere.com
LaSCI	Logistics and supply chain industries
WISE	Women into Social Enterprise. Project ran from 2001 – 2002.

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Summary

This thesis focuses on time and the relationships between the temporal characteristics or landscapes of an educational project located in a university business school, and the individual experiences of the project members. The specific focus of the research is the *EMPATHY Net-Works* project which supported women into employment through a taught module and e-mentoring.

Using Giddens's structuration theory, I explore the temporal landscapes of the *EMPATHY Net-Works* project and the ways in which it was influenced by its context and project members, and also the ways in which the temporal landscapes influenced the experiences of project members. I use an interpretivist approach and develop an ethnographic case study in which my role is participant-as-oberserver. My data came from project documentation, online discussion group messages and interviews. I use two approaches to data analysis: a classification framework based on contemporary temporal research; and also temporal metaphors.

My interpretation of the data indicates that the temporal landscape of the project is complex and there are many commonalities and some differences between the temporal landscapes of the Business School, the *EMPATHY Net-Works* project and the taught module. The mentoring process appears to have a distinct temporal landscape. My study explores the subjective experiences of project members and their temporal personality or timescape. I demonstrate that within the project team we reproduced a traditional academic temporal framework. This framework facilitated the students' learning experiences. I also explore the importance of temporal frameworks in supporting the mentoring process.

I reflect on both the impact of my temporal personality and perspectives on this research and also my temporal experiences during my work on this thesis. Finally, I identify my contributions to knowledge, areas for future research, and the implications of my findings for facilitators and managers of e-learning and e-mentoring projects.

Chapter 1. Introduction

1.0 Introduction to this chapter

In this chapter, I introduce my research topic and outline the context of this study, an e-learning and e-mentoring project in a university business school. I then present my research aims and questions, and provide an overview of the development of my thesis and research process. This enables me to outline the literature base and the theoretical framework of the study. In addition, I outline the scope of the study, my research approach, and I identify the contribution this study makes to knowledge. I also identify the contribution I make to practice in the fields of e-learning and e-mentoring. This is followed by an exploration of my positionality as a researcher. Finally, I outline the structure and organisation of this thesis followed by a brief summary of this chapter.

1.1 Introduction to the thesis

This study focuses on time and the relationships between the temporal characteristics or landscapes of an educational project located in a university business school, and the individual experiences of the project members. The project, *EMPATHY Net-Works* (E-Mentoring for Professionals – The Net Works) was part-funded by the European Social Fund (ESF) and provided a taught module and e-mentoring for graduate women to encourage them to gain employment in the logistics and supply chain industries (LaSCI).

The concept of a 'temporal landscape' was introduced by Adam (2004) and she described it a cluster of temporal features such as pace, rhythm and time patterns which is inseparable from space and matter, and which is located within a particular context. As with a geographic landscape, temporal landscapes may share common features with other landscapes, e.g. Jurassic cliffs in Robin Hoods Bay, North Yorkshire have features in common with similar cliffs in Lyme Regis, Devon, and they are also unique as a result of their specific location. Temporal landscapes may be explored at a number of different levels, e.g. society, organisation, department or unit, team and

individuals. In this study, I am interested in the development of the temporal landscape of a specific project, *EMPATHY Net-Works,* funded by the ESF and located within a university business school.

The *EMPATHY Net-Works* project, August 2006 – December 2007, developed from previous projects within the University of Hull Business School (HUBS), e.g. the *EMPATHY* and *EMPATHY Edge* projects (Headlam-Wells, Craig and Gosland 2006), and these were aimed at supporting women's career development. *EMPATHY Net-Works* provided graduate or professional women access to a management and career development programme established to encourage their employment and progression within the LaSCI in the Humber region. A commonly quoted definition of logistics and supply chain management is that of Christopher (2005: 2) who stated that:

> Logistics is a planning orientation and framework that seeks to create a single plan for the flow of product and information through a business. Supply chain management builds upon this framework and seeks to achieve linkage and co-ordination between the processes of other entities in the pipeline i.e. suppliers and customers, and the organisation itself.

The LaSCI links all of the processes involved in the manufacture and distribution of products from obtaining raw materials through to delivering the finished goods to the customer. It is a global industry that involves a variety of transport methods (road, rail, sea and air) as well as local, national and international distribution centres. As outlined in Chapter 3, women are under-represented in the industry which has a severe skills shortage. The *EMPATHY Net-Works* project was one of the strategies used to promote women within the LaSCI.

Throughout this thesis, the term 'project members' is used to mean the students (or mentees), e-mentors, tutors and project team members. This project involved 60 students, 40 mentors, 5 project team members (including myself), 3 tutors (including myself) plus stakeholders within the Business School and LaSCI.

Once recruited onto the project, the students took part in a blended learning module and also an e-mentoring process. The term 'blended learning' is used

to mean an holistic approach to learning that involves a blend of different approaches, e.g. face-to-face and e-learning, the use of different technology-based tools, or the bringing together of individuals from different sectors, e.g. higher education and LaSCI. A number of different terms are used to describe e-learning and these include networked learning, supported online learning, and the development of individuals and groups through membership of a virtual learning community (VLC). In this study, I use the term e-learning to describe structured learning activities accessible via and supported in a virtual environment. *EMPATHY Net-Works* also included 'e-mentoring' and I use this term to mean a paired mentoring process supported by virtual communication tools. These concepts are explored in more detail in Chapter 3.

EMPATHY Net-Works involved two distinct learning processes: a taught academic module; and e-mentoring. The module involved a range of learning and teaching activities: attendance at university-based workshops; guest speakers; individual e-learning activities; multiple choice logistics tests; an inquiry-based group activity on a LaSCI theme; podcasts of interviews with women managers; and a logistics safari, i.e. site visits to LaSCI organisations. The underlying pedagogic framework for the module was social theories of learning and, in particular, the concept of learning through a developing community of practice. Participants who successfully completed the academic requirements of the module achieved 10 credit points at postgraduate level.

The *EMPATHY Net-Works* project also provided e-mentoring to the women graduates. A mentor, typically a woman manager or director working in the LaSCI, supported each student as they progressed through their module and into the workplace. The mentoring relationship was supported for three to six months by the project and it was mediated through the e-learning and e-mentoring virtual environment, iCohere. The *EMPATHY Net-Works* project is introduced in more detail in Chapter 3.

1.2 Research aims and questions

This study enables me to develop my interest in time and e-learning, and to broaden my focus from exploring the experiences of individual learners to

include the broader organisational context. I am interested in the development of the temporal landscapes of this project including the influence of its host organisation, HUBS. In particular, I want to explore the ways in which these temporal landscapes impact on the experiences of individual project members. In addition, I am interested in the ways in which the temporal experiences of project members help to shape the temporal landscapes of the project.

My overall purpose in this study is to explore the temporal landscapes of the *EMPATHY Net-Works* project and to illuminate the relationships between this landscape and the temporal experiences of project members. The main focus of the research is the question:

> What are the relationships between the temporal landscapes of the *EMPATHY Net-Works* project and the learning experiences of project members?

This question is explored through the following subset of questions:

1. What are the temporal landscapes of the *EMPATHY Net-Works* project and the Business School?
2. What are the temporal experiences of the project members?
3. What are the relationships between the temporal landscapes of the project and its members?
4. How does the project temporal landscape help or hinder students' learning experiences?
5. How does the project temporal landscape help or hinder e-mentoring experiences?
6. What are the implications of these findings for facilitators and managers of e-learning and e-mentoring projects?

1.3 Time, e-learning and e-mentoring

My interest in 'time' as an academic subject of research developed when I first became involved in e-learning as an associate tutor with the Open University. I observed that, despite its promises of 'anywhere / any time' learning opportunities, time was often an issue for both e-learners and tutors. My

interest in this topic continued to develop as a result of my involvement as a programme designer and tutor in a number of local and national e-learning projects. In addition, I completed the MEd in Networked Collaborative Learning at the University of Sheffield (2000-2002). This Masters programme enabled me to research and write my thesis on "*E-learners Experiences of Time*" and this resulted in a number of publications (Allan 2004 and 2007a). My findings from this initial study motivated me to continue in this research field.

During 2004-2006, I was involved as an e-moderator and e-tutor in an e-mentoring project, *EMPATHY EDGE*, which encouraged graduate women into management. Again, I observed that for some women (both e-learners and e-mentors) time appeared to be an issue and they had difficulties in adapting to the temporal demands of on-line relationships and participating in an online community. The issue of time appeared to underpin other aspects of engagement in the mentoring relationship and also the online community, e.g. the need for time to develop trust in a virtual environment. My involvement as project director of the *EMPATHY Net-Works* e-mentoring project from 2006 to 2007 provided me with a new opportunity to explore issues of time with respect to e-learning and e-mentoring, and this experience forms the focus for this study.

I am interested in e-learning and e-mentoring as an approach to learning and teaching because it offers new and different ways for individuals to learn and work together in learning communities. It also offers a flexible approach to linking educational programmes located in universities with managers in the workplace. Management education provided by business schools often involves e-learning either as a means of supporting traditional learning processes, e.g. by the dissemination of learning resources, or as a means of delivery, e.g. involving computer-based training packages or online learning groups or communities. In addition, e-mentoring may be used to support an individual's learning process or to enable them to develop their professional career.

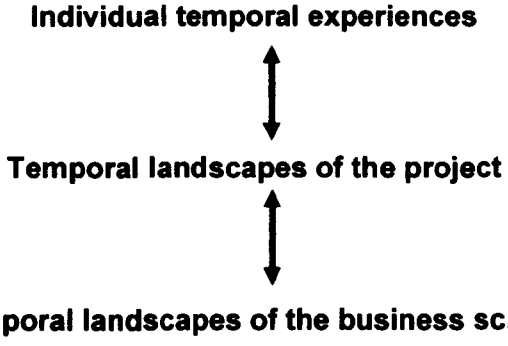
There is a body of evidence that suggests that e-learning is an effective approach to management and professional education (e.g. Brower 2003; Palloff and Pratt 1999). An often-claimed benefit of e-learning is that it enables

individuals to work together on live workplace problems or projects, share their knowledge and expertise, develop new knowledge, and reflect on their professional practice (e.g. Swan *et al* 2002). In addition, it may be used to mediate accredited programmes of study, in-house staff development or projects, and other educational and training initiatives including mentoring (Headlam-Wells *et al* 2006). The flexibility offered by e-learning and e-mentoring is attractive to those involved in management education as it provides e-learners with the opportunity to learn at a time and place that suits them (e.g. Arbaugh and Duray 2002; Marks *et al* 2005). However, my observation is that temporal challenges do arise in e-learning and e-mentoring, and these appear to be different to those experienced by individuals engaged in more traditional, i.e. face-to-face, approaches to learning either in the classroom or in mentoring programmes. I believe that understanding the temporal experiences of e-learners will enable us to design and deliver effective e-learning and e-mentoring programmes. I am very interested in this area of research as I have observed e-learning and e-mentoring projects that offer participants access to world-class e-mentoring facilities and resources, high quality technical and personal support, and are grounded in well thought through learning and mentoring processes. However, these projects do not appear to be 100% successful and a common issue identified in their evaluation relates to the issue of time (e.g. Headlam-Wells, Craig and Gosland 2006).

While the issue of time has been identified by a number of authors, e.g. Arbaugh and Duray 2002, and McConnell 2005, there is little existing research into e-learning or e-mentoring that considers this issue in any depth. One notable exception is the work of Salmon (2000) who, writing in the context of management learning, suggests that the issue of time is an emotive subject for both e-learners and facilitators. Earlier studies of mine (Allan 2004; 2007a) explored e-learners' experiences of time and I found that this often involved a complex process as individual learners adapted and changed their approaches to learning to meet the temporal demands of working within a virtual environment. Some e-learners reconstructed their approaches to time management at an early stage in their virtual experiences. These learners often engaged in reflective commentaries on their temporal experiences with other members of their community and this appeared to facilitate the process of adjusting to the temporal demands of life online.

My starting point for this study was an intention to build on this earlier work by exploring the e-learning and e-mentoring experiences of the project members involved in the *EMPATHY Net-Works* project. However, as my study progressed, I realised that team members (including myself as project leader) had an impact on the temporal landscape of the project. In addition, I realised that this landscape was influenced by the temporal landscapes of the Business School, the funding body (the ESF), and the LaSC industries. My thinking was strongly influenced by reading Brown (2005) who explored the temporal landscape of a business school from an ethnographic perspective. This article enabled me to understand that individual temporal experiences are socially constructed and that they are influenced and shaped by the temporal landscape of their organisational environment. This is represented in Figure 1.1. My focus in this study is the temporal landscapes of the project and Business School. I decided that exploring the temporal landscapes of the university, LaSCI and the ESF was beyond the scope of this study.

Figure 1.1. Relationships between individual experiences, the project and organisational temporal landscapes



1.4 Literature base

This study is located in the research literature on 'time' and this is explored in Chapter 2. Time is a complex construct and it can be explored from a number of different perspectives including philosophy, science, sociology and feminism. Each of these themes is introduced as they provide a basis for understanding contemporary research on time. There is a rapidly developing

research literature on time and, in this study, I focus on research covering the themes of time and organisational studies, higher education, and e-learning or e-mentoring. These three themes link with my focus in this study, i.e. an e-learning and e-mentoring project in a higher education organisation. In addition, I focus on temporal literature that used a qualitative or interpretivist perspective as this fits in with my research approach and methodology.

As I developed my thinking about this study, I realised that the temporal experiences of e-learners were influenced by the temporal landscape of the project and the Business School (see Figure 1.1) and I became interested in the ways in which the temporal experiences of project members were influenced by and also influenced its organisational contexts. This line of thought led me to explore the literature of social theory and I identified that traditional sociologists focused on either the action of individuals (agency) that lead to the creation of society or the view that society is a system of relationships (structure) that determines the actions of individuals. My reading of sociological theories introduced me to the works of Giddens and Bourdieu who both attempt, in different ways, to bridge the concepts of structure and agency. Giddens (1984) suggests that structure both constrains and enables agency, and that structure and agency cannot be understood separately of each other. Giddens developed structuration theory which attempts to bring together the concepts of structure and agency. The work of Bourdieu (1977) also seemed relevant to this study as he was also concerned with the relationships between structure and action. In Chapter 4, I explore the work of both Giddens and Bourdieu and explain why I selected Giddens's structuration theory as a framework for exploring the interactions between agency and structure with respect to individual temporal experiences and landscapes in the *EMPATHY Net-Works* project.

There is a vast literature base on e-learning and, in this work, I focus on the themes of blended learning and e-learning and e-mentoring programmes or projects underpinned by social theories of learning. The rationale for this decision is that the programme of study and mentoring process supported by the *EMPATHY Net-Works* project were based on social theories of learning. I did consider presenting a separate chapter on the e-learning literature but decided that as the *EMPATHY Net-Works* project was underpinned by the

findings from current e-learning literature then I would present this in the context of the project rather than as a separate literature review.

In order to clarify the scope of this study, I will now outline areas that I considered exploring in this study but rejected, i.e. behaviourist research into e-learning and mentoring; theoretical research into project management; and the management education literature. Earlier in this section, I stated that this study focuses on an e-learning and e-mentoring project whose design was informed by social theories of learning. Consequently, I exclude literature that takes a behaviourist approach to learning and teaching, e.g. research into web-based training programmes. Much of the mentoring and e-mentoring literature is based on behaviourist thinking, e.g. studies concerned with measuring the degree of matching between mentees and mentors such as Armstrong, Allinson and Hayes (2002), and I have excluded them from this study on the grounds that they are not aligned with my interpretivisit approach. One area that was potentially relevant to this study is research into project management. However, as the dominant discourse in project management is underpinned by particular assumptions about time (often described as clock or industrial time) I realised that if I was to include this in the scope of this work then it would potentially channel my study into traditional ways of thinking about time. In addition, much of the project management research literature takes a positivist approach and this is not congruent with an interpretivist approach. Consequently, I have not engaged with the project management research literature although I do make reference to some common project management tools and techniques. Finally, I considered exploring the management education literature and decided that this would broaden the scope of the research too much. While the *EMPATHY Net-Works* project was a management education programme this forms the academic content of the programme. Consequently, I decided not to explore this literature base in any depth.

1.5 Research approach

In this study I take a subjectivist or interpretivist approach for a number of reasons. First, this approach matches my values and beliefs about the nature of things, knowledge and human nature. I believe that this approach enables

me to explore and understand the temporal landscapes of the *EMPATHY Net-Works* project and the impact of these on the learners. In addition, this research is located in domains of knowledge, i.e. time (from sociological and organisational perspectives) and e-learning and e-mentoring, where there is an established knowledge-based located in this perspective. Finally, using the same research approach as established researchers enables the knowledge created in this study to be integrated into existing knowledge domains.

This research is a case study, located within a particular project and organisation, and it focuses on individuals or groups of actors and attempts to understand their experiences and perceptions of events. Verma and Mallick (1999) suggest that case studies go beyond the description of a particular individual, event or situation and suggest that they are "primarily concerned with the interactions between various events and situations" to create particular outcomes. Cohen *et al* (2000: 181) write:

> It provides a unique example of real people in real situations, enabling readers to understand ideas more clearly than simply by presenting them with abstract theories or principles. Indeed a case study can enable readers to understand how ideas and abstract principles can fit together. Case studies can penetrate situations in ways that are not always susceptible to numerical analysis.

This research is an example of an ethnographic case study, Cohen *et al* (2000: 38) quote LeCompte and Preissle who stated that "ethnographic research is a process involving methods of inquiry, an outcome and a record of the inquiry. The intention of the research is to create as vivid a reconstruction as possible of the groups or cultures being studied." Using an ethnographic approach enables me to understand the viewpoint of the project members and also my own experiences as project director and 'participant observer' in the research process.

As mentioned earlier in this chapter, the focus of the study is the *EMPATHY Net-Works* project and this involved 60 students, 40 mentors, 5 project team members and 3 tutors. Data collection involved a range of sources including: discussion group messages, project evaluation forms, interviews, and project and Business School documentation. I also maintained a research diary throughout my involvement with the project (September 2006 – December 2007). I used the software package, NVivo, to manage and analyse my data. My approach to content analysis involved: the identification of temporal

metaphors; and the classification of temporal concepts using a framework adapted from the work of Ancona, Okhuysen and Perlow (2001). The next stage involved what Radnor (2001) calls 'analysis to interpretation' and this meant interpreting the findings in the context of the literature and also the theoretical framework, and developing meaning from them. This draft document or selections from it were then presented to project members for validation. A major issue that I tackled during the research process was my multiple roles including project director, tutor, mentor and researcher, and this is explored in Chapter 5 which also considers issues of validity, transferability, and generalisability, as well as the ethical issues associated with this study.

A number of colleagues have queried whether or not I was going to use a feminist research approach as the *EMPATHY Net-Works* project was aimed at combating the under-representation of women in the LaSCI. I decided that I was going to position this study as an interpretivist approach within the mainstream e-learning, e-mentoring and management fields for a number of reasons. First, the *EMPATHY Net-Works* project was not underpinned by a feminist pedagogy or approach to management, instead it was located in social theories of learning. Second, I want the findings to contribute to knowledge in the fields of e-learning and e-mentoring rather than women's studies or gender studies. Finally, I believe that opportunities to publish my findings would be limited to journals and communities associated with gender studies if I took a feminist stance. I aim to publish my research in the mainstream management education literature.

1.6 Contribution to knowledge

This study makes a contribution to three bodies of knowledge: temporal aspects of organisational and project life; e-learning and e-mentoring projects and educational research methodology. First, I demonstrate that the temporal landscape of the project is complex and there are many commonalities and some differences between the temporal landscapes of HUBS, the *EMPATHY Net-Works* project and the taught module. The mentoring process appears to have a distinct temporal landscape. Second, I demonstrate that metaphors in e-learning and e-mentoring projects provide a means of understanding individuals' subjective temporal experiences and one that is in sharp contrast

to the rather technical temporal language that is used in the classification scheme. Third, I demonstrate that within the project team we reproduced the traditional temporal framework for a taught module and one that is aligned with standard academic timetables. In contrast, the lack of a prescribed temporal framework for the mentoring process meant that although many mentoring pairs developed their own framework some were unable to establish a pattern of working together. Fourth, I make a tentative contribution to knowledge as there appears to be a potential relationship between individual temporal horizons and their employment status. Fifth, I identify that the issue of absence or presence with respect to their partner was an emotional issue for some mentees and mentors and, in terms of contributions to knowledge, this finding builds on previous work on trust e.g. McConnell (2005) and absence/presence in virtual environments e.g. Friedland and Boden 1994. Sixth, I illustrate that the temporal landscapes of the project appeared to support students' learning experiences on the taught module as this was delivered using a temporal framework that was familiar to the students. The contribution to knowledge from this finding relates to my attempts to link the project temporal landscapes with student learning experiences. I am not aware of any previous research that links these two concepts. Seventh, I found that one of the characteristics of successful mentoring pairs is that they develop a temporal framework that helps to support their mentoring relationship and process. In the absence of a framework, some mentoring pairs appear to struggle.

In this work, I also made contributions to research methodology in the following ways. First, this is a novel piece of research: an ethnographic case study involving the temporal landscapes of a business school, project, taught module and e-mentoring process. Second, I develop and re-purpose the classification scheme of Ancona, Okhuysen and Perlow (2001) and then apply it to this case study. I explore the temporal landscapes in the case study and also the timescapes of individual project members. I also explore the challenges involved in re-purposing the classification scheme. In this study, I identify the temporal personality or timescapes of individual project members and this involves characteristics such as temporal horizon, orientation, depth and identity. This builds on the work of Brown (2005) and this research contributes to this field as I involved different project members with different

roles unlike Brown's work which focuses solely on the experiences of academics. My research indicates that my research methodology enabled me to identify and represent the timescapes of different members of a project. In terms of my contribution to knowledge, I believe that this approach provides a starting point for a more extensive study into individual timescapes within an educational project. Finally, I use Giddens's structuration theory as a framework for analysing my findings and I am not aware of this framework having been used in previous temporal research relating to both e-learning and e-mentoring. I believe that my overall research methodology is unique in the way in which I apply and adapt established approaches to this particular case study. .

1.7 Recommendations for practice

As a result of my contributions to knowledge, I identify three specific recommendations for practitioners involved in e-learning and e-mentoring projects. The first recommendation is aimed at individuals involved in designing and delivering e-learning and e-mentoring projects, and it is to consider using an explicit temporal framework for their e-learning and e-mentoring programmes and to disseminate this to students via the e-learning site, guidance materials and regular digests or newsletters. My second and third recommendation relate to e-mentoring projects. I suggest that practitioners who are establishing an e-mentoring process consider providing a recommended temporal framework which may include suggested activities to their mentees and mentors. If this is provided as an optional support aid then mentoring pairs may choose to use it or develop their own working practices. My final recommendation relates to the issue of presence or absence in e-mentoringI recommend that practitioners who are establishing e-mentoring programmes consider facilitating opportunities for mentees and mentors to discuss their expectations and anticipated availability in a virtual environment, and also how they will manage unexpected absences. Ideally these discussions should take place before the start of the mentoring process.

1.8 Background to the researcher

My academic background is rather mixed and at different times I have been positioned in higher education within a school of library and information science, a business school, and a technology faculty, and also in an agricultural college. My current position is that of Director of Learning and Teaching at the University of Hull Business School where I am a member of the Organisational Behaviour and Human Resource Management Subject Group (equivalent to a Department). Also, I am a research active member of the Centre for Management and Organisational Learning, a research centre, within the Business School.

During 2006-2007, my work within the Business School involved three areas of activity: teaching and learning; research; and administration. In teaching and learning, I was involved in teaching project management, management skills and also academic skills to undergraduates, postgraduates and external customers. In addition, I lead the HUBS Centre for Innovations in Learning and Teaching. My approaches to learning and teaching are underpinned by a pedagogy based on social theories of learning and, in particular, the development of learning communities. This pedagogy informed the curriculum development processes within the *EMPATHY Net-Works* project. Another area of interest is that of project management as I teach this subject to undergraduates and also project management practitioners in the public sector. As a result of teaching and writing about this topic (e.g. Allan 2005), I am very familiar with standard practices in project management which involve the use of tools and techniques such as Gantt charts and network diagrams. This project management background is relevant to this study because as director of the *EMPATHY Net-Works* project I led the project process in a particular way and one that is undoubtedly affected by the temporal assumptions that underpin standard project management tools and techniques. However, as stated earlier, I do not engage with the research literature on project management in any detail in this study.

My previous experiences of research include a thesis on medical information for a master's degree in information science (mid 1970s) and research during a master's degree in adult education (early 1990s). The latter thesis was on changes in the uptake of science and technology programmes by women in

higher education. Both of these pieces of research were based on quantitative methodologies. During 2000-2001, I undertook the MEd Networked Collaborative Learning at the University of Sheffield and this introduced me to qualitative research. My thesis for this degree enabled me to explore e-learners' experiences of time during their networked learning activities. This experience convinced me of the value of qualitative research as a means of exploring and understanding the experiences of a particular group of learners and the different ways in which the findings could have an impact on professional practice. The MEd experience provided me with the impetus to progress onto the EdD programme.

Currently, I am research active in the fields of e-learning and virtual learning communities. In the past seven years I have researched different aspects of workplace virtual learning communities. This work has been published in a book, *Virtual Learning Experiences,* which was co-authored with Dina Lewis (Lewis and Allan 2005), and also a number of papers (Allan 2004 and 2007a; Allan and Lewis 2005, 2006a, 2006b and 2007; Allan, Hunter and Lewis 2006). In one study (Allan 2007a), I used metaphors as a means of analysing the underlying experiences of e-learners with respect to time. This approach provided some interesting insights and is explored in Chapters 6 and 7. One common thread within this work is my focus on the temporal experiences of e-learners and my research approach is an interpretative one. Reflecting on this earlier work as a result of my literature review presented in Chapters 2 and 3, led me to see how my earlier work was, in general, underpinned by a concept of time that involves time as a fixed external reference point, i.e. 'clock' time. In this study, I want to develop my thinking to consider the relationships between structure and agency with respect to temporal landscapes and individual experiences of time.

Since 2000, I have been involved in a number of different projects that aimed to support graduate women back into the workplace after a career break. These have involved traditional face-to-face delivery and, since 2002, e-learning and e-mentoring. I became project director for the *EMPATHY Net-Works* project in 2006 and I was particularly interested in the ways in which the project used e-learning and e-mentoring to support women's career development. In addition, the *EMPATHY Net-Works* project aimed to encourage women into employment in the LaSCI and the e-mentors who

participated in this project were employed in these industries. As work progressed on the project I realised that the LaSCI had their own temporal landscapes. This is a potential area of research, i.e. the impact of the temporal landscapes of the LaSCI, but it is beyond the scope of this work.

In October 2007, I was promoted to Director of Learning and Teaching within HUBS and, as a result of this new role, I have gained personal experience of the temporal landscapes of the Business School from the perspective of a strategic manager. I have captured this experience within my field diary and this provided another perspective on the temporal landscapes of the project and it is explored in Chapters 7 and 8.

1.9 Structure of this thesis

The purpose of this section is to outline the structure and content of the thesis. This chapter provides an introduction to this study. In my literature review, I found that there was an extensive literature on 'time' and that it would be impossible within the scope of this thesis to review it all. In Chapter 2, I provide an overview of different ways of looking at time using the lenses of philosophy, science, and sociology. This chapter briefly explores different conceptions of time including: time as an external reference point or clock time; time as a social construct; and time and modernity. These three general conceptions of time provide a framework for analysing temporal research. Next, I provide an overview of current thinking into time and relevant examples of temporal research. In particular, I explore three categories of temporal research that were identified by Ancona, Okhuysen and Perlow (2001): conceptions of time; mapping activities to time; and actors relating to time. I use these three categories as a means of exploring temporal research in organisations, higher education, and e-learning. This framework informs my research methodology.

Chapter 3 provides the background context and provides a detailed description of the *EMPATHY Net-Works* project and this includes a brief description of HUBS and also the LaSCI. I provide a discussion of theoretical ideas concerned with e-learning, blended learning and e-mentoring and, as stated previously, these are placed in this chapter rather than the literature

review as it provides an explanation of the underpinning pedagogy for the *EMPATHY Net-Works* project. This chapter includes an outline of the module, its content and learning and teaching strategies. I also provide an introduction to mentoring and e-mentoring, and this includes the *EMPATHY Net-Works* e-mentoring process. This chapter concludes with a brief overview of the virtual learning environment, iCohere, which supported both the e-learning and e-mentoring aspects of the project.

As I was reading the literature and writing up Chapters 2 and 3, I was also actively thinking about and researching a potential theoretical framework for this study. My reading of sociological theories introduced me to the works of Giddens and Bourdieu who both attempt, in different ways, to reconcile one of the main tensions within sociology, that is the dichotomy of agency and structure. These theoretical frameworks are explored in Chapter 4 where I explain my rationale for choosing to use Giddens's structuration theory as the theoretical framework for this study.

Chapters 2 to 4 establish the context, literature base and theoretical framework for this study. In Chapter 5, I introduce the research approach and methodology. I discuss my rationale for this interpretive case study and my use of an ethnographic approach. Next, I describe and evaluate my approaches to data collection and also data analysis. I explain the ways in which I collected data from a number of different sources including online discussion boards, the project's formal evaluation methods involving questionnaires, and interviews with project members. I also describe how I collected data relating to the temporal landscape of the Business School and the project.

I also describe the data analysis process which included the use of NVivo software. Finally, issues involved in the data capture and analysis process are explored in this chapter. A major issue that I tackled during the research process was my multiple roles including project director, tutor, mentor and research. In Chapter 5, I explore the challenges that arise from this situation and I relate them to issues of validity, transferability, and generalisability. Finally, I consider the ethical issues associated with this research.

In Chapter 6, I present my findings and these are organised around the themes of the temporal landscapes of the Business School and *EMPATHY Net-Works* project, the temporal experiences of project team members, the temporal experiences of students on the taught module, and temporal experiences of students and mentors during the mentoring process. I use a range of techniques to present my findings including tables, a photograph, graph, quotations and metaphors. In Chapter 7, I summarise my findings and I link them to the research questions, contemporary temporal research and the theoretical framework. The purpose of Chapter 8 is to provide me with an opportunity to look back and reflect on my research. In this chapter, I critically reflect upon my research methodology, the use of the classification scheme based on the work of Ancona, Okhuysen and Perlow (2001), and the application of Giddens's structuration theory. I also reflect on the impact of my temporal personality or personal timescape on this research. Finally, I consider my temporal experiences during my work on this thesis and reflect on them in the context of my work-life balance and work as an academic in HUBS.

In Chapter 9, I conclude this work by identifying my contributions to knowledge, limitations of the study and suggesting further areas for research. I also make some recommendations for practitioners in the fields of e-learning and e-mentoring. I also provide a brief conclusion to this thesis. Chapter 9 is followed by my references.

1.10 Summary

In this chapter, I introduce my research which focuses on time and the temporal features or landscape of the *EMPATHY Net-Works* project which supports graduate women into employment in the LaSCI through a learning and teaching process that includes e-learning and e-mentoring. I am interested in the development of the temporal landscape of this project and the ways in which it is influenced by its context and project members, and also the ways in which the temporal landscape influences the experiences of students, mentors and the project team.

I present my research aims and questions, and then outline my research process. This includes an overview of my experiences in the field of e-learning

and e-mentoring, and the development of my academic interest in the issue of time. I then consider my position as researcher and I discuss this with reference to my learning and teaching practice, research and leadership of the *EMPATHY Net-Works* project. Finally, I provide an outline of the structure of this thesis and a very brief summary of the topics covered in each chapter.

The next chapter provides an introduction to the literature on time and this helps to set the context for this study.

Chapter 2. Time and contemporary research

2.1 Introduction

The aim of this chapter is to provide an overview of different approaches to thinking about time, and also to review the contemporary temporal research literature. I start by providing an overview of different ideas about time from the perspectives including philosophy, science and sociology. This helps to provide the context for the following review of contemporary temporal research.

One of the challenges of writing this chapter is the vast literature base on time. Consequently, I limit my focus to those writers who have had a major influence on the ways in which we think about time and those works that have influenced contemporary temporal research relevant to this study.

2.2 Philosophical and scientific perspectives

2.2.1 Philosophical perspectives

In this section, I outline a number of different ways in which philosophers have tackled the issue of time and my starting point is Aristotle (384-322 BCE) who suggested that questions about time can only be resolved by saying what time is. Consequently, he defined time with the words "Not only do we measure the movement by the time, but also the time by the movement, because they define each other. The time marks the movement, since it is its number, and the movement marks the time" (quoted in Adam 2004: 28). This definition is important as it clearly links the idea of time with motion and direction, and also suggests that it is measurable using numbers.

Moving on from Aristotle's ideas, St Augustine, writing in his *Confessions,* provides a relativistic theory of time and he asked: "What, then, is time? If no one asks of me I know; if I wish to explain to him who asks, I know not"

(quoted in Collinson and Plant 2006: 45). Augustine explored some of the challenges of thinking about time. For example, he noted that "Neither past nor future, but only the present, really **is**: the present is only a moment, and time can only be measured while it is passing. Nevertheless, there really is time past and future" (quoted in Eco 1999: 249).

The challenges about thinking of past and present, are considered by Augustine who links the past with memory and the future with expectations and memory. Augustine realised that this approach didn't fully resolve the issue of time and leaves questions such as: "How can past and future exist if the past is no longer and the future is not yet? Does this leave us with an eternal present? But an eternal present would be eternity and not time." Augustine identified the difficulties involved in measuring time and he also asserted that although it is impossible to measure the past, present or future, in reality, we do measure time, e.g. individuals have a sense of time passing and that sometimes it appears to pass quickly while at other times it passes slowly. Augustine deals with this situation by suggesting that this non-metric measure of time is located in our memory.

2.2.2 Measuring time

Both Aristotle and Newton believed in absolute time, i.e. if you measured a time interval between two events then this would be the same who ever measured it provided that they had a good clock (Hawking 1988). This fundamental conception of time was maintained over centuries and still underpins many everyday discussions and approaches to time. This approach to measuring time underpinned the development of many time measuring devices including sundials which track the movement of the sun across a dial, the water clock that links time with the flow of a particular amount of water, and also candles and sand or crushed egg time pieces which measure the burning of a candle or the flow of sand to a specific unit time. These devices began to be replaced with mechanical clocks which although they were in existence from 1000 BC did not become widely available in Europe until the Middle Ages (Lippincott 1999). As a result of the development of mechanical clocks, timepieces appeared on communal buildings in villages, towns and cities, and personal timepieces became widespread. Betts (1999)

argues that the increase in travel and communications across the globe led to the development of clocks that enable people to read the time in different parts of the world, e.g. the Universal time-finder of Pascal made in circa 1900 and the Edwardian clockwork globe made by Smith in 1910. The development of wireless telegraphy by Marconi in the early 1900s enabled time signals to be distributed around the world. Nowadays, time is measured and distributed using atomic clocks and the development of radio-controlled clocks and watches means that it is possible for everyone to have the 'correct' time (Betts 1999). Alongside the development of devices for measuring time came the standardisation of time. Prior to the 1840s, towns across the world kept local time and this caused major difficulties for travellers. The development of the railways speeded up the progression towards standardised time and, in 1880, Greenwich Mean Time was adopted as the legal standard time in Great Britain. Subsequently, the concept of international timekeeping conventions was accepted and agreed in 1884 and is now used across the globe.

In the early 1900s, Einstein's thesis on relativity revolutionised the way in which time is conceptualised and his work illustrated that time is not objective or absolute. Einstein's theory of relativity suggests that individuals' perceptions of time depend on our state of motion. Hawking (1988: 21) summarised this concept as follows "it appeared that each observer must have his own measurement of time, recorded by a clock carried with him, and that identical clocks carried by different observers do not necessarily agree." Einstein's model for the universe suggests that there are four dimensions of existence in space-time (three dimensions of space — length, breadth and height — plus one of time) rather than the evolution of a three-dimensional existence over time. Fernandez-Armesto (1999: 249) described the implications of this as:

> The 'arrow of time' could turn out to be a boomerang. Time could be reversed – for instance, by the contraction of the universe. The order in which we perceive events – and therefore the structure of cause and effect we infer from this order are negotiable.

Hawking (1988) describes how time and space co-exist together and are 'mutually elaborative' to the extent that it is impossible to separate them. This shift in thinking about time was followed by changes in the ways in which sociologists began to think about time later in the 20th century. This is explored later in this chapter.

2.3 Sociological perspectives

Sociology is the study of people and their social life in groups, organisations and society. Adam (1995: 6) suggests that time is integral to all aspects of social life, even if it is unacknowledged: "time is embedded in social interactions, structures, practices, and knowledge, in artefacts, in the mindful body and the environment." Examples of artefacts that present societies' perspectives on time include clocks (see previous section) and also calendars (see later in this section).

Sociological theories are underpinned by different concepts of time. Significant influences include the work of Marx (1818-1883) who highlighted the commodification and compression of time, i.e. time is an abstract exchange value which enabled workers to exchange their work for money. This approach is underpinned by quantitative clock time and "the use of time as an abstract exchange value is possible only on the basis of 'empty time,' a time separated from content and context, disembodied from events" (Adam 2004: 39). This idea of the commodification of time is developed in the work of Thompson (1967) who, in his seminal work *Time, Work-Discipline and Industrial Capitalism,* highlighted the importance of the development of the clock and the way in which it introduced change in society. In particular, Thompson linked the proliferation of clocks with the development of an industrial society in the nineteenth century. One feature of this change was the rise of the factory where 'time was money' and individuals attended work at specific times. This was in contrast to agrarian societies where the timing and nature of work was linked to the hours of daylight and seasons of the year. This approach to thinking about time is relevant to this study which is located in a higher education institution that supports many of the temporal features of a traditional factory.

One effect of linking time with money is that speed becomes important in a business context, i.e. the efficiency drive to produce more output for less input resulting in the compression and intensification of business processes. According to Adam (2004) and also Carrasco and Mayordomo (2005) the work of Marx on the commodification and compression of time has had a major

influence on sociologists and, in particular, on approaches to thinking about and researching work and organisations.

Following on from the work of Marx, Weber (1864-1920) writing from an economic perspective, identified links between capitalism, the Protestant work ethic and an economic approach to time (Adam 2004). Building on the work of Marx, which identified time as an exchange value, Weber suggested that time then becomes a resource like labour, capital, machinery, or property. This approach, in which time is treated as a resource, was in conflict with nineteenth century Christian thinking that espoused that time belonged to God and so a trade in time was identified as a sin. Weber linked changing approaches to time to the lifestyle in Western monasteries, which were organised around an external universal clock time, and this approach was highly rational and didn't acknowledge individual emotional needs. It involved establishing specific times for different activities throughout the day and night, and endorsed punctuality and predictability. Weber suggested that this linking of time with self-control and virtue was highly valued within the Protestant ethic. The influence of the monasteries and the Protestant ethic led to a change in emphasis that involved a shift from the past-present-future perspective to one that was oriented towards the future. This approach to thinking about time is relevant to this study as historically the church was active in the development of universities and schools, and their temporal perspectives still influences educational practices today, e.g. rigid clock-based timetables, attendance monitoring, and bells to signal the shift from one activity to another.

Adam (2004) describes the work of Durkheim (1858-1917) who saw time, along with space, class, number, cause, substance, as a category of thought that underpins understanding and he compared it to a solid framework that enclosed thought. Durkheim's work on religion led him to articulate the social nature of time. He suggested that because individuals conceive of time with reference to an external clock, which exists beyond the individual, then time may be thought of as belonging to society as a whole. Durkheim observed that time was constructed differently in different parts of the globe and, hence, it was a social construct. To individual members of a community it appeared as

a fixed reference system but taking a global perspective it can be seen as a social construct.

This is illustrated using the example of calendars; different societies have their own calendars. Adam (2004: 107) quotes Durkheim who suggested that: "A calendar expresses the rhythm of the collective activities, while at the same time its function is to ensure regularity." Calendars provide a temporal framework that enables a society to regulate its people and their activities in a co-ordinated manner. Individual organisations have their own calendar, e.g. within a university's academic calendar there is a framework of events including recruitment, enrolment, teaching and assessment, examination committees, and graduation which provide a structure and template for its activities. Adam (2004) highlights the differences between the calendars of different cultures, e.g. Mayan, Aztec, Egyptian, Indian, Chinese and European, which are built on different cycles including those of the sun and/or moon.

The next two sociological theorists, Mead and Schutz, explored time from a relativist approach and considered individual experiences of time. Mead (1863-1931) took a relativistic approach to time and rejected the abstract concept of clock and calendar time as being no more than a social convention. He explored the relationships between change, continuity and identity, and suggested that we used our minds whenever we described our past and that this involved selecting and revising our memories. In addition, if we think of our future then this involves creating an imagined future. In other words, the past and the future do not exist except as figments of an individual's imagination (Mead 1932). Mead's work is relevant to this study as it highlights and validates the importance of the perspectives of individuals on time rather than a universal external time. Shutz (1899-1959) who is associated with the development of phenomenology emphasised the "everyday world of lived experience" (quoted in Adam 2004: 66). He suggested that this is predicated on our sensory knowledge of the world and also the socially constructed concepts that we use to structure and make sense of our experiences. One of these concepts is time and Schutz suggested that we are grounded in the "here and now", and that this forms a reference point for all other orientations including past and future. The focus of Schutz's work is on action and rationalising that action. His work highlights the importance of language and the use of tenses which enable us to think and talk about the past and future

in many different ways, e.g. "future futures, future presents, present futures, future pasts or any other number of combinations" (Adam 2004: 68).

2.4 Modernity, time and space

The early sociologists such as Marx, Weber and Durkheim were functionalists and their grand narratives were underpinned by assumptions of time that included its conceptualisation as an external abstract reference point. In contrast, the work of Mead and Schutz was concerned with the individual subjective experiences of time and the construction of past, present and future. This general difference in their approaches reflects one of the main tensions within sociology; the dichotomy of agency and structure, subjective and objective, and micro and macro. The work of Giddens (1984) is introduced here as it attempts to reconcile this tension within sociology and it also provides a potential framework for exploring the temporal life of the *EMPATHY Net*-Works project.

The core of Giddens's (1984) theory is captured in the phrase 'duality of structure' which means that people make up society and they are constrained by it. In other words, structure and action are two sides of the same coin; structures are created and changed as a result of action and as individuals or agents we act in a manner that is affected by structure. Giddens (1984) suggests that individuals are reflexive, i.e. we monitor and change our actions in response to others and, consequently, it is important for sociologists to analyse social practices which are "ongoing streams of action." Giddens describes structure as the "rules and resources" that act as "common interpretive schemes in a particular social system." He argues that the relationship between structure and practice is similar to that between language and speech. Structures organise practices and are reproduced by practices. Structures do not physically exist and cannot be directly observed. However, individuals will experience structures as a force that drives a particular behaviour. This concept of Giddens is called structuration and it is explored in more depth in Chapter 4.

Giddens also comments on the present-day world and writes about a 'runaway world' (Giddens 2006) which is characterised by the transformation of the old

industrial society into a global economy with increased risk and uncertainty. Giddens suggests that trust, as in having confidence in abstract systems such as food and water supply, is closely bound with the perceived increased levels of risk in the world. He suggests that living in an information age is associated with an increase in social reflexivity. This concept of social reflexivity refers to the need to reflect upon the way in which we live our lives, as it is no longer possible to assume that the old traditional ways will now work in the modern world. In addition, the development of new technologies and other possibilities such as developments in medicine means that we are now facing new challenges and dilemmas. This concept of modernity and, in particular, the development of new technologies has led to new ways of thinking about and conceptualising time. In the context of this research, Giddens's concept of reflexivity is relevant as it provides an example of the need to reflect on the temporal experiences of e-learning and e-mentoring as they appear to be underpinned by different temporal practices to those of traditional approaches to education.

Friedland and Boden (1994) write that new interest in time and space has arisen as a result of changes in society. Traditionally, individuals and their actions are 'embodied' in specific moments of time and place, i.e. events take place at a specific time and in a particular place. In Western societies these events have taken place within the time frame determined by the twenty four hour clock and seven day week. They write:

> Modernity has, however, brought enormous and increasing changes in the tensions between the immediacy of here and now, our physical location in space and time, and the sorts of experiences, actions, events, and whole worlds in which we can partake at a distance. Our experiences of here and now has increasingly lost its immediate spatio-temporal referents and has become tied to and contingent on actors and actions at a distance. The experiential here and now of modernity is thus in a real sense nowhere and everywhere.
>
> Friedland and Boden (1994: 6)

Giddens (1990: 18) discusses this idea in terms of 'the emptying of space and time and states that: "The severance of time from space....provides the very basis for their recombination in ways that coordinate social activities without necessary reference to the particularities of place." Individuals are no longer tied to a single place or particular times. Instead they can communicate with

each other from different places and at different times as if they are co-located in the same room. This approach to thinking about time is relevant to the current study as e-learning and e-mentoring enables participants to work together at different times and from different locations in a shared virtual space.

One of the tensions of modernity that arises from the transformation in space/time relates to the issue of 'presence' and 'absence' (Friedland and Boden 1994). They do not define what they mean by absence or presence, but in their explanation they write about: co-presence in relation to two people being present in the same physical space; presence in relationship to two people communicating with each other either face-to-face or by other means e.g. phone or electronic communications; and absence when someone is not present in either the physical or virtual environment. The concept of presence and absence is complex. For example, in the context of e-learning and e-mentoring an individual is both 'alone' in front of their computer screen and also part of an online community and in one-to-one relationships, e.g. with their mentor or tutor. Someone may be present in an online environment in the sense that they are logged into that environment and reading discussion group messages but they may be absent as unless they post messages or engage in online chat sessions their presence is invisible to other online participants (although the learning environment administrator will be able to register their presence). This issue of presence/absence is relevant to this study as if project participants have different understandings of online working then this may lead to misunderstandings which impact negatively on their learning experiences.

Theorists (e.g. Adam 1995; Eriksen 2001; Friedland and Boden 1994; Virilio 2000) argue that society today is characterized by the acceleration and compression of time and space. Eriksen (2001: 149) characterizes this in terms of 'fast time' and 'slow time.' He suggests that fast time involves a 'fragmented and rushed temporality' the sense that 'time is accelerating' and this is associated with increased access to information at every increasing speeds, e.g. via the Internet. He suggests that this brings advantages to the senders of virtual communications but that it reduces the freedom and flexibility of the recipient. One consequence of fast time is that it may lead to e-learners creating their own silos of fragmented information that is 'cut and

pasted' from multifarious sources without them spending 'slow time' integrating new ideas and concepts (Eriksen 2001). It is worth noting that fast time is not the same as being busy as someone may be busy as they have too much to do but this may not be associated with a sense of accelerating time and information overload. In a similar way, slow time is 'not the same as a great amount of time' (Eriksen 2001: 155) but it is concerned with taking the appropriate amount of time for an activity. Another effect of fast time is that it replaces slow time which is required for certain kinds of emotional and intellectual experiences (Land 2006 and 2008). In this context, the work of Dirckinck-Holmfield *et al* (2004) on the design of virtual learning communities to enable different rhythms of participation becomes important as they emphasize the need to build in time for reflection. This is particularly relevant to this research as learning and mentoring are processes that involve reflection or slow time. There is the potential danger that the students are located in fast time and so miss out on the reflective dimension required for learning and personal development. In addition, the tutors and e-mentors may also be located in fast time and not be able to be 'present' in the VLE and facilitate appropriate reflective activities to promote student learning and mentee development.

2.5 Classifying temporal research

My literature review indicates that there is vast literature base on temporal research and I found that Ancona, Okhuysen and Perlow (2001) provide a review of temporal research. These authors created a list of key variables representing the concerns and focus of temporal researchers. They developed their list based on seminal research articles on temporal themes in the fields of organisations, organisation theory, sociology, social psychology and anthropology. They then clustered these variables into three categories of variables: conceptions of time; mapping activities to time; and actors relating to time. One of the difficulties they experienced was that they also identified variables that spanned more than one of these categories. This structure provides a framework for exploring temporal research and it is summarised in Table 2.1 and the category spanning variables are presented in shading as a means of emphasising their difference. I used their review and framework of

temporal variables as a means of organising my findings from the literature review and I then use it to inform my research methodology (see Chapter 5).

2.6 Conceptions of time

The first category presented by Ancona, Okhuysen and Perlow (2001) and summarised in Table 2.1 relates to different concepts of time. This is divided into two sub categories: different types of time; and socially constructed time. These will be considered in turn.

2.6.1 Different types of time

Ancona, Okhuysen and Perlow (2001) identified a series of variables used to describe different types of time and they include the concepts of linear time, uniform time, cyclical time, subjective time and event time. They suggest that temporal research is typically based on one of these concepts of time as illustrated in the following examples.

Morrison (1996) explored the lives of female students by investigating their approach to time. Her work is based on scientific management approaches to time and time management, i.e. linear or uniform time. She used the metaphor of an iceberg to describe visible study time when women attend college and also the invisible private study. This visible/invisible metaphor is linked to public/private self. Morrison (1996) explored the tensions and challenges

Table 2.1. Classification of temporal research (Ancona, Okhuysen and Perlow 2001)

Category	Subcategory	Example variables
Conceptions of time	Types of time	Linear time, uniform time, cyclical time, subjective time and event time.
	Socially constructed time	Work organisation (nine to five, workdays, work time and family time), celebrations (Passover and Easter), time as a renewing cycle, time as linear continuity
Mapping activities to time	Single activity mapping	Scheduling, rate of completion, duration
	Repeated activity mapping	Cycle, rhythm, frequency, interval
	Single activity transformational mapping	Life cycles, midpoint transitions, jolts, interruptions, deadline behaviour
	Multiple activity mapping	Relocation of activities, allocation of time, ordering, synchronisation
	Comparison and meshing of activity maps	Entrainment, patterning, temporal symmetry
Actors relating to time	Temporal perception	Experience of time, time passing, time dragging, experience of duration, experience of novelty
	Temporal personality	Temporal orientation, temporal style
Category-spanning variables		Polychronic and monochromic time
		Banana time

faced by female students who had to balance their study and working times. She considered their work-life balance with reference to gender-based divisions of labour. Her conclusions highlighted the importance of time management skills (a clock time perspective) and the need to provide flexible learning systems, i.e. to become more effective at using a clock time perspective in an education system.

In contrast to the work of Morrison (1996) who used a clock approach to time, the next example illustrates research based on subjective experiences of time. Edwards (1993) investigated the temporal experiences of women returning to higher education after a career break and she found that these women were involved in a multiplicity of tasks as a result of combining their studies with family life and she suggested that "Neither clock nor task-defined time capture the allocation of psychic or mental time" (Edwards 1993: 64). Edwards's study begins to capture and outline a temporal experience and language that moves beyond a traditional clock approach into individual subjective experiences of time.

One of the difficulties of applying the schema of Ancona, Okhuysen and Perlow (2001) is that it doesn't cover all world views or time visions. For example, Saunders *et al* (2004) suggest that different cultures develop their own conception of time based on a number of different dimensions. They identify four time visions, clock, event, timeless and harmonic, and each of these time visions is subdivided into its characteristic features (see Table 2.2). The importance of this concept of global time visions to this study is that it provides a potential framework for analyzing and describing individuals' subjective experiences of time.

Table 2.2. Time visions (Adapted from Saunders *et al* 2004)

Clock	Event	Timeless	Harmonic
Discontinuous	Continuous	Continuous	Continuous
Homogeneous	Epochal	Epochal	Homogeneous
Linear	Cyclical	Cyclical	Cyclical
Uni-dimensional	Multi-dimensional Recurrent	Multi-dimensional Recurrent	Multi-dimensional Recurrent
Abstract	Concrete	Abstract	Concrete
Relatively objective	Subjective	Subjective	Intersubjective
Short-term	Long-term	Long-term	Long-term
Monochronic	Formal-monochronic Informal-polychronic	Polychronic	Monochronic

Clock and calendar time is the dominant time vision in American, Anglo-Saxon, Germanic and Scandinavian countries (Adam 1995) and this approach considers time as discontinuous, uni-dimensional and it also involves taking a short term approach. According to Saunders *et al* (2004), very different approaches to time are found in Eastern cultures and these are called 'event,' 'timeless' and 'harmonic' time visions. These temporal approaches are continuous, multi-dimensional or recurrent, and long-term. Three dimensions from Eastern time visions appear to be particularly relevant to e-learning and e-mentoring, i.e. continuity, direction and chronicity and this is explored in more detail in Chapter 3. The work of Saunders *et al* (2004) suggests that different societies have different conceptions of time. However, this concept is not contained within the variables presented by Ancona, Okhuysen and Perlow (2001).

In conclusion, this section explores different concepts of time and I show how the work of Ancona, Okhuysen and Perlow (2001) does not provide a comprehensive overview of all the temporal variables. I identify examples of educational research based on variables such as clock time and subjective

time. I also refer to research that focuses on different cultural concepts of time including clock, event, timeless and harmonic time.

2.6.2 Socially constructed time

Ancona, Okhuysen and Perlow (2001) found that some researchers took the perspective that time was socially constructed and they describe different types of time, i.e. work organisation (nine to five, workdays, work time and family time), celebrations (Passover and Easter), time as a renewing cycle, and time as linear continuity. Typically much of the early management literature on time in organisations took a work organisation approach to time, e.g. the time and motion studies of scientific management as illustrated by the seminal work by Taylor in 1911.

Hassard (1990) explores the ways in which time is constructed at the level of society and suggests that from birth onwards individuals adapt to the temporal constraints of their society and the organisations in which they work. He calls this temporal structuring and suggests that it takes place through child rearing practices, schooling and other socially sanctioned practices including higher education and continuous professional development. This is relevant to this study which takes place within an institution that has its own temporal practices and seasonal patterns including semester and vacations, timetables, deadlines, and assessment periods. This concept of temporal structuring is developed by Orlikowski and Yates (2002: 685) who, using Giddens's structuration theory (see Chapter 4), describe it as a process "where people (re)produce (and occasionally change) temporal structures to orient their ongoing activities."

Adam (1995) considers education and time, and suggests that clock and calendar time provides the dominant temporal experience in Western education. This is illustrated by the existence of an academic calendar, course timetables which determines the structure of the educational experience, and also academic debates over the curriculum and how much time is 'given' for a particular subject. Adam (1995), building on the work of Weber, suggests that this particular approach to time, i.e. punctuated and sectioned time, was first

developed in monasteries and, in particular, by the Benedictine monks. In addition, educational experiences are normally arranged in certain sequences which presuppose a beginning, middle and end. In higher education; this is illustrated by the identification of levels of academic learning and also the notion of pre-requisites. The rise in the concept of 'lifelong learning' has extended the educational life span from a traditional one that involved Western children entering school at the age of 4 – 8 years (depending on their country of origin) and then remaining within the educational system until their teenage years or early twenties to one that means that individuals may be engaged in educational processes throughout their lives.

In the UK, the annual academic timetable is cyclical and it includes seasonal breaks at Christmas and Easter that relate to religious festivals and also to holidays such as summer and half terms (or reading weeks) that relate to the agricultural calendar. These norms of time that underpin Western education are rarely questioned and they relate to specific theories of time, i.e.

> Time as measure and as quantity they express an understanding of the uni-directionality of processes, of cause and effect, and of the cumulative nature of knowledge. They imply an understanding of time that acknowledges that 'you cannot step into the same river twice,' that the past and future are inseparably tied to the present, and that there is a 'right' time for everything.
>
> Adam (1995: 66).

Individuals who have experienced a typical Western educational process have internalised this approach to time which involves moving from our own personal time world into the one created and supported by the educational institution and it is underpinned by clock time.

A contemporary example of research into work organisation time is that of Westenholz (2006) who explores the construction of time by a group of IT workers. Based on her findings, she critiques the common approach in temporal research of categorising time, e.g. clock time or task time, and she suggests that the workers in her study did not form a homogenous group with a common time identity or perspective. She identifies four distinct time identities:

- clock timers who are only available for institutional work when they are actually in the office during standard office hours
- blurred timers who don't have a clear demarcation between work and leisure time but they are available for work both during standard office hours and also outside of these hours, i.e. in their 'leisure' time
- task timers who are available and organise their working hours to complete their tasks
- invaded clock timer who distinguishes between work and leisure time but are available for work during their leisure time.

Westenholz (2006) suggests that these differences in time identities or visions are linked to employment status, e.g. most of the clock timers and invaded clock timers were in permanent employment and were members of a union. In contrast, task timers were often working on a contract basis as temporary employees and were not members of unions. Blurred timers were found in all combinations of employment status and union membership but were chiefly in permanent employment and members of unions. This example is included in this chapter as the *EMPATHY Net-Works* project employed a number of workers on different contractual arrangements and Westenholz's categorisation may be relevant to their temporal perspectives and contributions to the temporal landscapes of the project.

Current research into work-life balance often considers the relationships between work, family and leisure time. Brannen (2005) points out that the concept of standard working hours has been eroded as a result of new production regimes, new types of employment contract and ways of working including teleworking, and also the rise in use of information and communications technology. This is reflected in changes in employment, legislation, e.g. UK Employment Act 2002 and the European Working Time Directive 2003, as well as the move to a 24/7 global economy. At the same time, the concept of work-life balance has developed and this term suggests that it is possible to develop a balance between work and the rest of our lives (although some people may argue that a life-work balance is more appropriate). Government reports on work-life balance emphasise the need to promote 'family' friendly policies and practices such as flexible working, maternity and paternity leave (Taylor 2003). Brannen (2005) suggests that

individuals in higher status jobs are required to work longer hours and this is in contrast to nineteenth and twentieth century work patterns where people in low status jobs were required to work long hours either by their employer or in order to earn a living. Different researchers emphasise different aspects of work-life balance, e.g. Clark (2000: 37) defines work-life balance as "satisfaction and good functioning at work and at home, with a minimum of role conflict", White *et al* (2003) refer to work-family spill over and Sturges *et al* (2002) discuss work-non-work conflict. The concept is complex and involves the overlaps and interactions, and the conflicts and imbalances that may arise between different aspects of our lives (Brannen 2005). The concept of a work-life balance is relevant to this study as both students and mentors may be working with each other either from work and/or home. Consequently, they may experience stresses caused as a result of an imbalance between the time demands of their module, mentoring, work, home or leisure activities.

The four previous examples of temporal research are all based on the idea that time is socially constructed. The framework of Ancona, Okhuysen and Perlow (2001) does not include or appear to easily accommodate research into organisational temporal landscapes which has produced its own set of temporal variables. For example, the work of Brown (2005) provides a detailed analysis of different conceptions of time at an organisational level. Brown's work is included here as it provides a potential language and methodology for researching the temporal landscapes of the *EMPATHY Net-Works*.

Brown (2005) explores the temporal landscape within a business school from an ethnographic perspective. Writing from the viewpoint of an academic, she identifies three domains of activity in the academic world: teaching, e.g. length of semester or term, teaching hours – daytime, evening and/or weekend, and the associated 'class contact' hours which are negotiated between business school managers and staff; research, e.g. the life cycle of a research project from bid to completion, the writing and publication of articles, and the existence of 'remission' or study leave for research activities; and finally administration which includes activities with an annual cycle, semester or weekly cycle, e.g. student induction, preparation for module and programme boards, production of routine reports. Brown (2005) also considers individual

actors' relationships to time and this is explored later in this chapter as it fits into a different category of Ancona, Okhuysen and Perlow's (2001) framework.

Brown (2005) uses the work of Jacques to construct a temporal landscape which is presented in Table 2.3. The time horizon provides a container or boundary and its key feature is duration, e.g. one academic may have a time horizon of the end of the semester while another may have a horizon that is measured in years rather than weeks. The time frame is the bounded period or structure within which an event or activity may take place and these may be characterised by features such as interval, pace, parallel, sequence, simultaneity, synchronicity, tempo or timing. Finally, the concept of time span relates to the length of the event or activity and this may be characterized using concepts such as: past, present and future; beginning and ending; continuity and permanence, flux and change, passage and direction, pausing and interrupting; and repeating.

The time horizon, rather like its geographical counterpart, establishes a boundary or fixed point. Bluedorn and Standifer (2006) describe the classic study of Lawrence and Lorsch (1967) who found that different departments within an organisation experienced different time horizons. They found that these time horizons could be measured and explained as a result of the length of time it took the department to learn the results of their decisions and they illustrated their work with the examples from marketing and research and development departments, The longer it took to learn the outcome of their decisions then the longer their time horizon. Bluedorn and Standifer (2006) use this example to explain that time is socially constructed within an organisation and that by changing management practices it should be possible to change the timescape of the organisation. In the context of higher education then the annual academic cycle provides a time horizon and, in the context of a funded-project, then the end of funding clearly signals the end of the project.

Table 2.3. Features of a temporal landscape (adapted from Brown 2005)

Dimensions	Function	Features
Horizon	Containment	Duration
Frames	Structural	Interval Pace Parallel Sequence Simultaneity Synchronicity Tempo Timing
Spans	Bridging	Past/Present/Future Beginning/Ending Continuity/Permanence Flux/Change Passage/Direction Pausing/Interrupting Repeating

Brown (2005: 459) describes each of these time frame features as follows:

- Interval - The period of time between two parts of an action; between two points of time or between two actions; a recognized short pause in the course of some otherwise continuous action
- Pace - The 'speed' at which an event occurs or a rate of progression; a 'step' in any process or proceeding
- Parallel - Two or more different events (e.g. teaching and research) taking place beside one another/in tandem, and not meeting or interacting; side by side in time; running through the same period of time; contemporary in duration
- Sequence - The following of one thing after another in succession
- Simultaneity - Events occurring at the same time; the simultaneous representation of several different views of the same event
- Synchronicity - Events that occur at the same successive instants of time; events that go on at the same rate and exactly together
- Tempo - Relative speed or rate of movement; the proper or characteristic speed and rhythm of an event
- Timing - The fixing, ascertaining, noting, or recording of time; selection for maximum effect of the precise moment for beginning or doing

> something; observation and recording (as by a stopwatch) of the elapsed time of an act, action, or process.

Brown (2005) suggests that the defining feature of the time horizon is duration which may be retirement, end of the academic teaching year, end of semester. She found that the time horizon is strongly linked to the concept of workload which in itself is based on an economic model of time. With respect to teaching she found that this was seen as a series of events which were either continuous/predictable or discontinuous/unpredictable. She found that discussions with academics about their research revealed that they often didn't see an end to it, i.e. it lacked a horizon. In contrast, administrative duties were seen as repetitive and a burden.

Time frames provide a structure to the day, week and year. Their features include interval, pace, parallel, sequence, simultaneity, synchronicity, tempo and timing. In the context of the business school, Brown (2005) talks about the flexible academic who had some control over the structure and organisation of their day and the types of activities that they engage in as part of their 'workload.' Brown commented on the overspill between academic and home life, and how some individuals appeared to take advantage of this by prioritizing home activities over work ones. This line of thought overlaps with that of Westenholz (2006), which is described earlier in this chapter, as she identifies four time identities: clock timers; invaded clock timers; task timers; and blurred timers. In addition, it also links in with thinking about work-life balance.

Teaching appears to be based on time frames, e.g. one or three hours, which are often a function of the timetabling of space rather than pedagogy. Brown (2005) suggests that the time required for research, i.e. large blocks of uninterrupted time, is generally unavailable or eroded as a result of the requirements for teaching and administration. Brown (2005) identifies the arguments that take place over the amount of time required for administrative tasks and the ways in which they are sometimes unhelpfully sequenced outside of the term or semester time.

Brown (2005) identifies different time spans which are characterized by features such as past/present/future, beginning/ending, continuity/permanence, flux/change, passage/direction, pausing/interrupting, and repeating. In the context of an higher educational organisation, the academic year has a clear time span, i.e. start and end, and there is often a sense of continuity or permanence as programmes continue to be delivered year on year. In addition, there is flux and change as new modules and new programmes are introduced. Activities and events such as a communal lunch break or meal to celebrate a colleague's promotion or retirement provide pauses and interruptions to day-to-day activities. In the context of research, there is continuity between past, present and future in the writing of literature reviews that provide an opportunity for reflection and updating. Administrative duties are full of beginnings and endings, changes, e.g. in the numerous forms that need to be completed, and interruptions, e.g. as an administrator makes an urgent request for information or clarification. Brown (2005: 467) summarizes her work by suggesting that her temporal model provides a "viable lens through which to view academics living their organisational lives." In the context of this study, they provide a potential framework and language for exploring the temporal landscapes of the *EMPATHY Net-Works* project.

Brown's research is described in some detail as it is located in a business school and it provides a language and framework for exploring the timescapes of the *EMPATHY Net-Works* project. It uses a large number of terms to describe different aspects of an organisational temporal landscape. Some of these terms are replicated in other categories presented by Ancona, Okhuysen and Perlow (2001). However, the overall concept of an organisational temporal landscape, as identified by Brown (2005), appears to extend the basic framework of Ancona, Okhuysen and Perlow (2001) and this is explored later in this chapter and then in Chapters 5 and 7.

2.7 Mapping activities to time

The second category described by Ancona, Okhuysen and Perlow (2001) is concerned with mapping activities or events to time. Variables that fall into this category are concerned with rate, duration, allocation, scheduling and entrainment. This approach to researching time is concerned with the creation of order, e.g. a time line or overall plan or schedule. It is typical of the approaches used in project management and the LaSCI. Ancona, Okhuysen and Perlow (2001) identify five sub-categories that are concerned with mapping activities to time and these are outlined below:

1. Single activity mapping. This involves mapping a single activity to a continuum and the focus is often on variables such as the rate at which the activity takes place, its duration, and endpoint. In the context of e-mentoring this could involve identifying the start of a mentoring process between two individuals, the frequency of interactions, its duration and endpoint.

2. Repeated activity mapping. This involves mapping an activity that is repeated multiple times, for example, the repeated delivery of a module of study. Variables associated with repeated activity mapping include the rhythm and frequency of repetitions, and the interval between repetitions of the activity.

3. Single activity transformational mapping. This concept involves an activity that as it progresses a transformation takes place and this changes the old into a new activity. Single activity transformational mapping includes: activities that allow continuous transformation, e.g. learning; and non-repeating transformations such as the stages of development of an individual, group or team. There are also variables that describe how the change takes place, e.g. the concept of a mid-point or is the point of change from the old to the new activity as the result of a jolt or interruption which changes the pace of activity.

4. Multiple activity mapping involves the relationships between multiple activities and time. This is commonly seen in traditional project management practices where time is allocated to specific activities which are themselves mapped into a sequential network

of activities scheduled to achieve the most efficient and/or effective sequence of activities. Multiple activity mapping raises the issue of the synchrony of activities which is the relationship(s) between starting and end times of an activity. Examples of synchrony between activities include the concept of perfect synchrony where both activities take place at the same time and also the situation where there is no overlap between activities. Ancona, Okhuysen and Perlow (2001) don't include one specific kind of example of synchrony, which commonly takes place in traditional project management planning practices, in which one activity must end before the second one can start. The final variable in this section is concerned with the 'relocation of time' and this take place if two activities conflict then one may be re-scheduled so that it takes place at a different time, or it may be redistributed.

5. Comparison and meshing of activity maps. The previous examples (1-4) are all described with the underlying assumption that they take place within the same temporal map. The final category takes into account that different activities may take place in different temporal maps and suggests comparing different activity maps. This involves comparing similarities and differences and is concerned with temporal characteristics such as allocation, order, and synchrony. One example of comparison and meshing of activity maps is that of 'social entrainment'. Ancona, Okhuysen and Perlow (2001: 517) cite the work of McGrath (1984 and 1986) who:

> describe entrainment as the process that captures or modifies human activity cycles and sets these cycles oscillating in rhythm with other processes, including various social systems, norms and institutions. Temporal maps that are entrained mesh together with respect to pace, cycle and/or rhythms.

This concept of mapping activities to time is relevant to this study for three reasons. First, the *EMPATHY Net-Works* project was located within the LaSCI. Concepts such as 'just in time' are important to this industry which is concerned with the movement of goods or information in time and terms such as rate, duration, allocation, scheduling and entrainment are commonly used by logistics practitioners. Second, the project was located within a Business School which has its own approaches to mapping activities to time and so the

project had to mesh into these activity maps. This is an example of social entrainment. Finally, the *EMPATHY Net-Works* project involved different types of activities including: single activity mapping; repeated activity mapping; single activity; transformational mapping; and multiple activity mapping. This category of mapping activities to time provides an analytical tool for analysing the project's activities. Examples of research that is based on this concept of mapping activities to time include studies in the fields of logistics and supply chain management, and also project management. It is beyond the scope of this chapter to explore this research in any more detail.

2.8 Actors relating to time.

The final category in the schema of Ancona, Okhuysen and Perlow (2001) is concerned with the ways in which actors (individuals, groups, organisations, societies) experience and relate to time. This category is divided into two subcategories: temporal perception variables; and temporal personality variables. It is worth noting that this category differs from the first category of Ancona, Okhuysen and Perlow (2001) which is concerned with different concepts of time. Under the earlier heading of different concepts of time, I explored the organisational construction of time, i.e. the organisational temporal landscape, and this section is concerned with the ways in which individuals or organisations experience and relate to time rather than construct it. However, I do acknowledge that these two concepts are inter-dependent.

The concept of temporal perception relates to our sense of time and this is illustrated by experiences that time is passing quickly or slowly when involved in an interesting or tedious job. One example of a variable that is concerned with temporal perception is that of 'time horizon'. Individuals have different time horizons and Bluedorn and Standifer (2006) provide an example which explores the different time horizons of individuals working within an organisation. They also introduced the concept of temporal depth which refers to the distances into the past and future that individuals think about things. This links to the work of Jacques (1994) who talks about time horizon, i.e. the boundary of an individual's perspective on time as illustrated by a goal.

Another variable in this category is that of 'novelty of time' (Butler 1995) and this relates to the idea that something new, different or unique is taking place. An example of this time perception takes place if an individual is carrying out a task for the first time, e.g. teaching a new topic or leading an on-line coaching session, and the uniqueness of this event means that it makes the time memorable and so the event becomes a reference point for the future. Examples of such reference points include my first day at school, my first on-line chat session, or my first interview. In the context of this research on the temporal landscapes of the *EMPATHY Net-Works* project where something different and unique was taking place then this concept of 'novelty of time' may be relevant to the temporal experiences of project members.

Temporal personality is the characteristic way in which an actor (individual, group, organisation or society) relates to time. This includes the ways in which an actor 'perceives, interprets, uses, allocates or otherwise interacts with time' and it involves both cognitive and behavioural aspects. Everyone has their own unique temporal personality or fingerprint. This is researched using two variables: temporal orientation; and temporal style. Temporal orientation is concerned with temporal perception (a sense of time), the way in which an individual perceives time (clock, cyclical) and their orientation, i.e. a focus on the past, present or future. The concept of a temporal style or timescape was suggested by Adam (1998) and this idea is concerned with individuals' relationships with time and their practical approaches to time. For example it includes individuals' approaches to attending meetings e.g. some people always arrive early for a scheduled meeting, others arrive just on time, while some people will regularly arrive late.

2.9 Category-spanning variables

In addition to the variables that fit into their three categories (conceptions of time; mapping activities to time; and also actors relating to time), Ancona, Okhuysen and Perlow (2001) also identify three variables that span these categories: monochronic time; polychronic time; and banana time. As indicated in Table 2.1 these variables are not described using a sub-category as they are category-spanning variables.

Monochronic working relates to people who prefer to engage in one activity at a time. In contrast, the concept of polychronic working has a number of meanings. First, it may be used to describe a context in which individuals engage in several activities or events at the same time, i.e. multi-tasking. Polychronic time also refers to mapping multiple activities on a temporal continuum, i.e. these activities take place at the same time rather than sequentially. Finally it is used to describe an individual's temporal style in which they map activities at the same time. These concepts of monochromic and polychronic times are important as research into Internet-based communications, e.g. Saunders *et al* (2004) and Allan (2007a), identifies that a feature of working and learning in a virtual environment is polychronic working patterns.

The final example of a variable that fits into Ancona, Okhuysen and Perlow's (2001) three categories is the concept that is known as 'banana time' and this term is used in a number of different ways. It is used to describe an event or intervention by workers which they use to break up the monotony of their working life. It is also a punctuation device that can be demonstrated on a mapping activity as causing a break between different types of time, e.g. work time and social time. Finally 'banana time' emerges from the experiences of individuals in which they want to make an unacceptable situation more acceptable.

This discussion of the three different categories of variables and the existence of variables that cross-over categories provides some indication of the challenges of researching time. In particular, it demonstrates the importance of

being clear about the definition and use of language associated with time and temporal experiences.

2.10 Extended classification scheme of temporal research

As a result of exploring contemporary temporal research and classifying it according to the framework of Ancona, Okhuysen and Perlow (2001), I realized that this schema does not provide a comprehensive overview of all the temporal sub-categories and variables. This is not surprising as the classification scheme was developed from a study of a small number of seminal studies on time rather than a comprehensive survey of temporal research.

Earlier in this chapter, I identified additional variables that represent different types of time, e.g. fast and slow time. I also refer to research that focuses on different cultural concepts of time, including event, timeless and harmonic time. In addition, I also identified a new sub-category, organisationally constructed time, with its associated variables. I appreciate that this concept could be integrated into the more general heading of social construct of time. However, in the context of this study, which focuses on the temporal landscape of an organisation, I think it is helpful to identify the variables associated with the organisational construction of time. I have extended the framework of Ancona, Okhuysen and Perlow (2001) to include this new sub-category and variables. These are highlighted in bold in Table 2.4.

The main reason I have extended the classification scheme of Ancona, Okhuysen and Perlow (2001) is that my research into the temporal landscapes of the *EMPATHY Net-Works* project will involve exploring different concepts of time, the ways in which time is socially constructed within the project, and also individual's experiences of time. This classification scheme provides a potential framework and a language which will be used in analysing my research data. This is explored in more detail in Chapters 5 and 7.

2.11 Summary

The starting point for this chapter is a section on philosophical and scientific approaches to time as this provides an historical background to the topic. Next there is an overview of sociological perspective of time starting with the work of the 'founding fathers' of sociology. Marx, Weber and Durkheim were concerned with both how we think about time within society and also how it influences societies' customs and practices. This is followed by a discussion of the work of Mead and Schutz who take a relativist approach to time and their focus is on the relationships between past, present and future. Next there is an introduction to new approaches to thinking about time and this is explored in the section on modernity, time and space.

I then consider contemporary temporal research that is relevant to this study and this began with a classification scheme of commonly used variables in temporal research. I then use this framework as a means of structuring my review of contemporary research relevant to this study. Finally, I provide a revised framework and this extends the work of Ancona, Okhuysen and Perlow (2001). This scheme helps to inform the research methodology described later in this work (Chapters 5 and 7).

The next chapter provides an introduction to the *EMPATHY Net-Works* project and its context. In addition, this chapter introduces the underpinning pedagogy used within this project and it explores the current literature on e-learning and e-mentoring with respect to time.

Table 2.4. Revised classification of temporal research (based on the work of Ancona, Okhuysen and Perlow 2001)

Category	Subcategory	Example variables
Conceptions of time	Types of time	Linear time, uniform time, cyclical time, subjective time and event time **Fast and slow time** **Clock, event, timeless and harmonic times** **Dreamtime**
	Socially constructed Time	Work organisation (nine to five, workdays, work time and family time) Celebrations (Passover and Easter) Time as a renewing cycle Time as linear continuity
	Organisationally Constructed time	**Horizon – duration** **Frames – interval, pace, parallel, sequence, simultaneity, synchronicity, tempo, timing** **Spans - past/present/future, beginning/ending, continuity/permanence, flux/change, passage/direction, pausing/interrupting, repeating**
Mapping activities to time	Single activity mapping	Scheduling, rate of completion, duration
	Repeated activity mapping	Cycle, rhythm, frequency, interval
	Single activity transformational mapping	Life cycles, midpoint transitions, jolts, interruptions, deadline behaviours
	Multiple activity mapping	Relocation of activities, allocation of time, ordering, synchronisation
	Comparison and meshing of activity maps	Entrainment, patterning, temporal symmetry
Actors relating to time	Temporal perception	Experience of time, time passing, time dragging, experience of duration, experience of novelty
	Temporal personality	Temporal orientation, temporal style
Category-spanning variables		Polychronic and monochromic time
		Banana time

Chapter 3. *EMPATHY Net-Works* project

3.1 Introduction

The aim of this chapter is to provide an overview of the *EMPATHY Net-Works* project. In the first section, I provide an outline of a university business school in the UK and I explain how the project fits into this organisational context. This is relevant to this research as in later chapters I explore the temporal landscapes of the project and its organisational context. The second section provides a description of the *EMPATHY Net-Works* project and topics covered include: project aims and outcomes; project members including the student/mentees and mentors; and the project staffing and management process. Factual information presented in this chapter was obtained from the project report (Allan, Craig, Louereiro-Koechlin and Robinson 2007).

The *EMPATHY Net*-Works project delivered a taught module and also a mentoring process to the student/mentees, and this is outlined in the final three sections of this chapter. I provide an introduction to the taught module starting with its pedagogic basis in concepts about blended learning and virtual learning communities (VLC). This is followed by an outline of the module content and also it's learning and teaching strategies. Next, there is an outline of theoretical ideas and research on e-mentoring and an outline of the *EMPATHY Net-Works* e-mentoring process. Finally, this chapter concludes with an overview of the virtual learning environment, iCohere, which supported both the e-learning and e-mentoring aspects of the project.

3.2 Context of the project

The University of Hull was founded in 1928 and today provides educational experiences for over 18,000 students a year. The academic portfolio contains 50 disciplines across the arts and humanities, business, education, health, sciences and the social sciences. The university has campuses in Hull and

Scarborough, and it has a significant impact on local economic and social growth. The *EMPATHY Net-Works* project is an example of one of its reach-out projects based in Hull at the Business School.

The Hull University Business School (HUBS) is a faculty-equivalent unit with 96 academic staff and 78 administrative, clerical and technical staff. In 2007/08, there were approximately 2000 undergraduate students, 500 postgraduate students and 45 research students registered on the School's programmes delivered on-campus (in Hull and Scarborough) and distance-taught in the Middle and Far East. This makes HUBS a medium-sized UK Business School, with a profile similar to those at the Universities of Durham, Lancaster and Leeds.

HUBS overall aim is to become a 'customer-focused, full-service Business School contributing to the development of international business excellence and to serving our region.' The *EMPATHY Net-Works* project supported the Business School's work in three main areas: contribution to regional development; supporting the needs of diverse groups of students; and also supporting the development of the LaSCI in the Humber Region. In addition, the project provided an opportunity for the development of innovative approaches to learning and teaching that could potentially be embedded into the mainstream programmes.

In terms of the organisation of HUBS, the School has a matrix structure and its academic and administrative organisation is shown in Figure 3.1. The shading denotes areas of HUBS activity that were involved in the *EMPATHY Net-Works* project. The Business School is actively involved in teaching, research and reach-out in a number of specialist areas within the broad umbrella of business and management There are six Subject Groups (equivalent to Departments) who take responsibility for all aspects of academic provision in their area: Accounting and Finance, Economics, Management Systems and Logistics, Marketing and Business Strategy, Organisational Behaviour and Human Resource Management (OB&HR), and the Scarborough Management Centre. In addition to Subject Groups, there are six research centres (Economic Policy; International Accounting and Finance; Logistics;

Management and Organisational Learning; Marketing, Communications and International Strategy; Systems Studies) and they provide a focus for all research activities. In addition, HUBS is the lead partner in the University's Logistics Institute which incorporates educational, research and reach out activity. A mixture of regional, government, university and European funds support the Logistics Institute. Co-ordination of the subject groups, research centres, and The Logistics Institute is achieved through five School level functions each led by a Director: Learning, Teaching and Assessment; Research; Reach Out; International Relations; and Quality. Administrative and support functions are provided at School level.

The *EMPATHY Net-Works* project was treated as a School level function, i.e. it was not located within a particular Subject Group, Research Centre or The Logistics Institute. The project was treated as a discrete unit and the project team worked co-operatively with appropriate units, e.g. Finance, Marketing and Communications, Reach Out, within the School. This is illustrated in Figure 3.1 by the use of shaded areas. As project director, I managed project team members. Table 3.1 illustrates how individual team members fit into the matrix structure of HUBS. More information about the organisation and management of the project is provided in the next section.

In addition to the project team, three tutors were involved in delivering the module and they came from two Subject Groups and two Research Centres as shown in Table 3.2.

I had a number of different roles within the project, i.e. project director, tutor, e-mentor, and e-mentor co-ordinator. In addition, I had other Business School roles, e.g. Programme Director BA Business Management (part time) and, in October 2007, I became Director of Learning and Teaching. The challenges presented by my multiple roles in terms of this research are considered in more detail in Chapter 5.

Figure 3.1. Organisational structure within the Business School

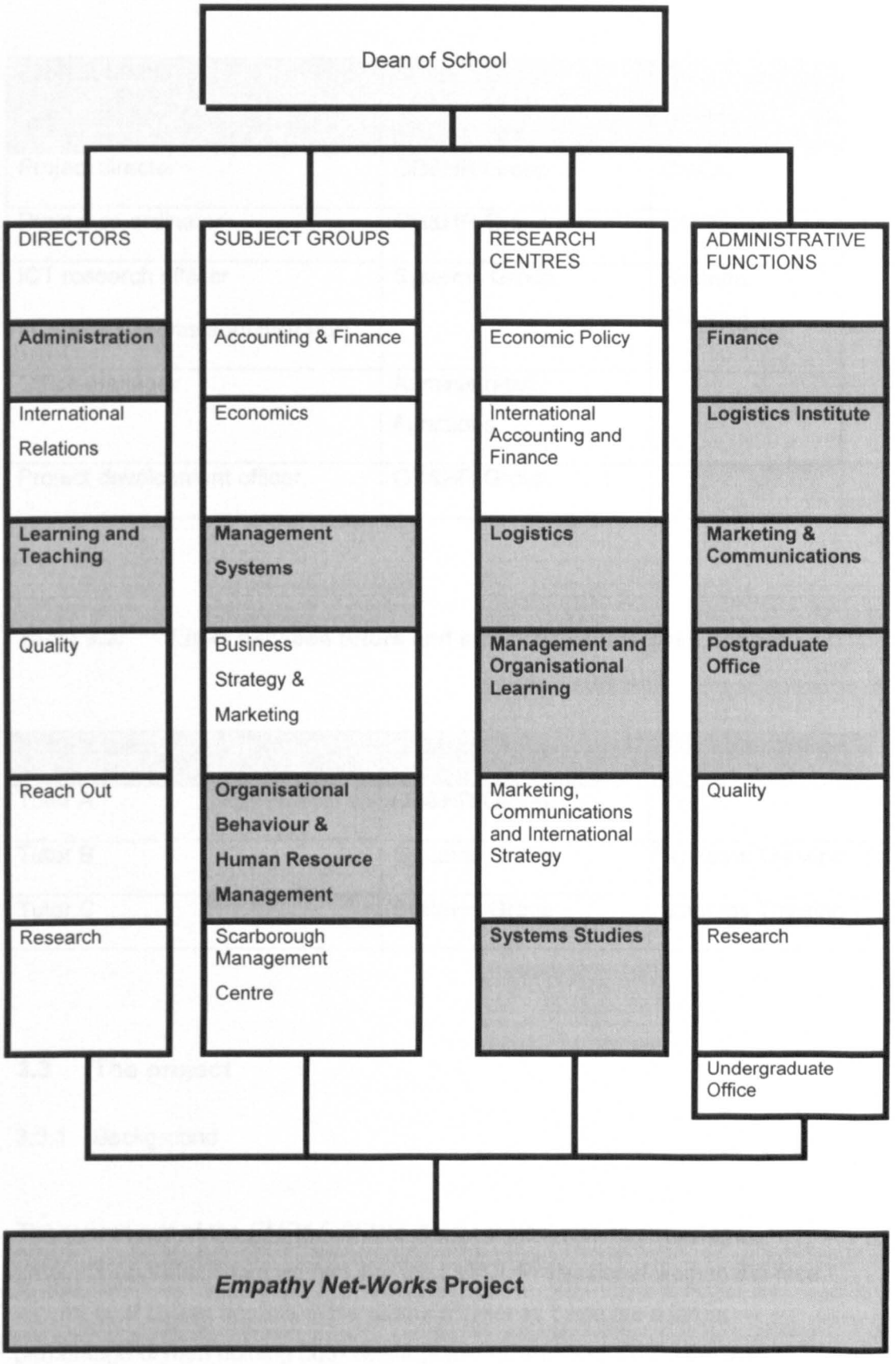


Table 3.1. Links between project team members and structure of Business School

Project team	Subject Group	Research Centre
Project director	OB&HR Group	CMOL
Project co-ordinator	OB&HR Group	CMOL
ICT research offiicer (iCohere systems administrator)	Systems Group	Systems Thinking
Office manager	Administrative Functions	
Project development officer.	OB&HR Group	

Table 3.2. Links between tutors and structure of Business School

Project team	Subject Group	Research Centre
Tutor A	OB&HR Group	CMOL
Tutor B	Systems Group	Systems Thinking
Tutor C	Systems Group	Systems Thinking

3.3 The project

3.3.1 Background

The overall aim of the *EMPATHY Net-Works* project was to encourage graduate or professional women into the LaSCI. Professional women still face a number of career barriers in the labour market as there are a larger percentage of men holding both senior positions and unskilled positions

compared to women. For example, in the UK only 17% of women hold director or chief executive positions in major organisations (Equal Opportunities Commission 2006). Different business sectors employ different numbers of women and men often in different jobs and with different rates of pay. For example, the transport, storage and communication sector employs 24% women compared with 76% men. Average earnings for women are still lower than men. In 2005, average hourly earnings for a woman working full-time were £11.67, and for men were £14.08. (Equal Opportunities Commission 2006).

According to the Sector Skills Council, Skills for Logistics (2007), logistics is the fifth largest industry sector employing almost 2 million people and its turn over is in excess of £55 billion each year. Inside Careers (2006) states that the UK is a recognised market leader in LaSCI management. Skills for Logistics (2007) state that the LaSCI has a history of major skills shortages and identified current areas of concern as the development of both basic skills and management skills. They point out that women are under-represented in the LaSCI labour force profile and it is a challenge to attract women to the industry as it suffers from an image problem. This arises from the perception that it is a traditional male-dominated industry and also that it is a poor industry in which to develop a successful career. In terms of LaSCI, women are under-represented both within specific functions, e.g. transport, and also at higher levels, e.g. management and director levels (Mangan and Martin, 2005). In the Yorkshire and Humberside Region, LaSCI employs 19% women and this compares with a figure of 46% for other industrial sectors (Skills for Logistics 2007). In addition, there is evidence that while women in LaSCI may be promoted quicker than men, they are more likely to resign (Chartered Management Institute 2007).

Since the 1970s, a number of initiatives supported by the UK government and the European Union, through the European Social Fund (ESF), have addressed the under-representation of women within certain industries and at higher levels in management and the board room (e.g. Shaw, Taylor and Harris 2000). A popular strategy is to support projects that enable graduate or professional women to return to work after a career break and/or encourage

women into management positions or industries in which they are under-represented. Support for these projects has been channelled through professional updating programmes or women into management programmes offered by higher education institutions (Michaels *et al* 1995; Saxby-Smith and Shepherd 2000). HUBS has a track record in the delivery of professional updating programmes for women and the *EMPATHY Net-Works* project was developed from previous projects, e.g. the *EMPATHY* and *EMPATHY Edge* projects (see Headlam-Wells, Craig and Gosland 2006 for an evaluation of the earlier projects). However, the *EMPATHY Net-Works* project differed from these earlier HUBS projects, as its focus was to encourage women into the LaSCI.

The *EMPATHY Net-Works* project provided a practical approach towards tackling the under-representation of women in LaSCI. The overall aim of the project was to enable women to gain employment or career progression within the LasCI in the Humber region through an educational programme supplemented by mentoring provided by women working in the LaSCI. The *EMPATHY Net-Works* project was part-funded by the European Social Fund (ESF) and HUBS, and it ran from August 2006 – December 2007.

The project targeted three main groups of women: unemployed recent graduates; unemployed graduates returning to the labour market from a career break; and employed women seeking a career change or progression. These groups were selected because they represented untapped resources of higher level skills and they experienced financial and promotional disadvantage in the labour market compared with men. The women were disadvantaged by the gender gap in labour market participation, the gender gap in pay, the gender gap in educational participation and attainment, and the gender gap in family and care responsibilities. The project was free for eligible women and course-related expenses, e.g. travel, childcare, other dependant care, were paid by the ESF. The number of women who took part in the project as student/mentees was 60 and there were 40 mentors.

The project recruited five different cohorts of student/mentees and their employment status at enrolment is presented in Table 3.3 below:

Table 3.3. The five cohorts of students/mentees

Employment Status	Unemployed	Underemployed	Career break	TOTAL
Cohort 1	11	2	1	14
Cohort 2	4	15	0	19
Cohort 3	2	6	3	11
Cohort 4	8	4	2	14
Cohort 5	0	2	0	2
TOTAL	25	29	6	60

Once recruited onto the project, the women took part in the management development module delivered on a part-time flexible basis. In addition, they were supported by workplace mentors. The module and mentoring processes are described later in this chapter.

3.3.2 Project management

As outlined earlier in this chapter, the project was located within HUBS and I was the project director. The overall staffing structure was shown in Table 3.1. The project team initially involved three workers: a project co-ordinator; an ICT research officer; and an office manager. In July 2007, the project co-ordinator went on maternity leave and was temporarily replaced by another worker, the project co-ordinator (maternity cover), whose contract was then extended until the end of the project and her new job title was project development officer. This team of four workers were all interviewed as part of this research (see Chapter 5).

The project was governed by a steering group whose purpose was to provide general guidance and organisational support. The steering group was chaired by the Director of the Logistics Institute and members included representatives from the LaSCI, The Logistics Institute, the Business School and also the project team. The steering group met every three months during the life of the project. Essentially, the project team designed and developed all aspects of

the project and took their plans to the steering group who then formally approved them. The project team held formal team meetings on a regular basis, normally weekly or fortnightly, and dealt with the detail of all aspects of the project. Although the project team met formally on a regular basis they also met and discussed their work with each other on a daily basis. The formal minutes of the meetings from both the steering group and the project team meetings provide part of the data for this research (see Appendix A).

3.3.3 Planning the project

The whole project team developed the project plan during the first few team meetings in September 2006. This plan is outlined in Table 3.4. Standard project management tools such as Gantt charts or network diagrams were not used by the project team as we decided that the overall process was relatively simple and could be easily mapped out on a sheet of A4.

Two important decisions made by the project team were to provide a flexible module and also to offer the project to up to 5 cohorts of students. The basis for these decisions was the need to achieve our project targets. We decided that if we offered different versions of the module, e.g. daytime, evening, online, then this would enhance the accessibility of the project. In addition, we decided that it would be easier to recruit and retain smaller groups of women (10-20) rather than dealing with one large group of 60 students.

This section has outlined the *EMPATHY Net-Works* project and the next section provides a detailed description of the taught module, Women into Logistics and Supply Chain Management.

Table 3.4. Outline project plan

Activity	Timing
Design and develop module	September – October 06
Design & develop e-learning & e-mentoring process	September – November 06
Produce supporting documentation	October – November 06
Plan and design recruitment process	November – December 06
Recruit student/mentees	January – June 07
First cohort	February – April 07
Second cohort starts	March 07 – May 07
Third cohort starts	May – July 07
Evaluation process starts	May 07
Fourth cohort starts	July 07
Fifth cohort starts	September – December 07
Project dissemination events	November 07
Complete project evaluation	December 07
Complete project reports	December 07

3.4 The taught module

3.4.1 Background

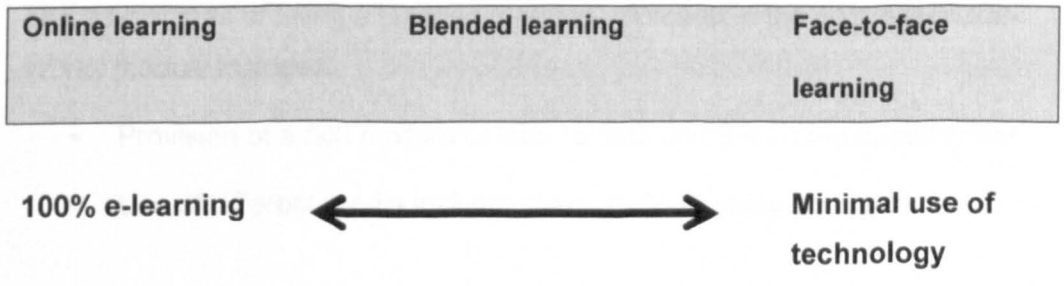
During the 1970s and 1980s, there was a rapid development in educational programmes aimed at encouraging professional women to return to work or progress their careers and these were developed using the educational theories of the day, e.g. feminist education, student-centred learning associated with humanistic psychology and experiential learning (Coats 1996; Kolb 1984; Mayberry and Rose 1999; Rogers 1983). Contemporary women's development programmes are increasingly located in social theories of learning including the concept of communities of practice (Gherardi 2000; Lave and Wenger 1991). In contrast to approaches to women's development, which have been established for more than twenty years, undergraduate and postgraduate degrees in LaSCI management are relatively new phenomena. Research in the field of logistics and supply chain management tends to be

positivist and based on quantitative studies. Mangan and Christopher's (2005) study of the development of supply chain managers highlights the importance of knowledge-based learning in this field. In their research, they found that students' learning preferences were (in decreasing order): case studies; lectures; simulations; and site visits. In addition, they found that lecturers preferred to use lectures and case studies, and to assess student learning using traditional examinations or assignments. This is quite different to pedagogical practices within women's education, which tend to be based on knowledge-construction using assessment strategies such as learning journals and group work. Within the *EMPATHY Net-Works* project team, we decided to utilise traditional educational practices in women's development and to develop a blended programme involving a wide range of learning and teaching strategies. This would enable us to utilise ideas and resources from colleagues in the field of LaSCI without embracing their under-pinning pedagogy. In part this decision was based on our previous successful experience in running women's projects, e.g. *EMPATHY* and *EMPATHY EDGE,* and also our personal commitment to social theories of learning.

3.4.2 Blended learning

The term 'blended learning' has risen in popularity in the past five years and is used in a variety of ways both in the literature and also in training practice. Blended learning often involves a rich mixture of technology-based approaches to teaching and learning, and sometimes a combination of technology-based and classroom-based learning, and this is represented in Figure 3.2.

Figure 3.2. Overview of blended learning (from Allan 2007b)



A more detailed analysis of blended learning is provided by Sharpe *et al* (2006) who identify different aspects of learning and teaching that may be blended together:

- Time, e.g. synchronous or asynchronous learning activities and communications
- Place where learning takes place, e.g. university or college, workplace, at home, Internet cafe
- Different information and communication technologies, e.g. first generation Internet technologies, social networking software or Web 2.0, or new developing technologies
- Context of learning, e.g. academic or workplace
- Pedagogy, e.g. tutor- or student- centred
- Focus, e.g. aims of learning process presented by tutors or employers, or aims negotiated and agreed by individuals, groups or communities
- Types of learner, e.g. learners with different roles such as student or practitioners, or multi-disciplinary or professional groupings of learners and teachers
- Relationships with others in the learning process, e.g. individual learning, group learning, or development of a learning community.

The first three aspects (time, place, technology) are commonly referred to in discussions on blended learning and are perhaps more typical of early examples of blended learning. In contrast, the next four items broadens out the discussion of blended learning and means that this concept could include a combination of work-based and classroom based activities. This is illustrated with examples from the *EMPATHY Net-Works* project where each cohort of students experienced a different blended learning programme (see Table 3.5).

The advantages of using a blended learning approach in the *EMPATHY Net-Works* module included:

- Provision of a rich mixture of face-to-face and e-learning opportunities
- Use of different media including text, audio or video podcasts

- Variety of approaches to learning, e.g. choice of reading materials, media, face-to-face and online activities
- Variety of approaches to assessment, e.g. written assignments, group assignments, multiple choice tests
- Variety of approaches to contacting and working with project members including face-to-face sessions, e-mail and message systems, phone, online discussion groups.

Blended learning appears to offer flexibility of time and space to both students and tutors (Allan 2007b, Mason and Rennie 2006). For example, the time involved in physically attending a course may be reduced by providing e-learning activities. Students may choose when they engage with their e-learning activities and this means that they can fit them into other aspects of their lives, e.g. family and social commitments, work, leisure activities. One of the advantages of blended learning is that it offers possibilities of new types of learning groups, e.g. multi-professional and/or international groups, that enable people to learn and work together across traditional boundaries of professions, organisations, geography or time. In the context of this project, it enabled LaSCI practitioners working across the world to contribute to project activities at a time and place that suited their working lives.

One of the rationales for using blended learning is that it will enhance the engagement of learners by providing a rich mixture of learning opportunities (Allan 2007b). This view acknowledges that individual students are likely to be interested in and motivated by different approaches to learning and teaching. For example, the *EMPATHY Net-Works* project involved a site visit to local logistics companies. Following this trip the students discussed their experiences and developed a detailed online discussion about their experiences. This online discussion opened within two hours of the end of the trip and continued for several weeks. Some of their messages showed that they had visited and evaluated the websites of their host organisations as well as reading the academic literature. This example demonstrates that by using a combination of learning and teaching methods it is possible to engage individuals in a learning experience so that they become motivated to explore and discuss their experiences beyond a specific time-framed activity such as a site visit.

Table 3.5. Summary of blended learning experiences within *EMPATHY Net-Works* project

	Cohort 1	Cohort 2	Cohort 3	Cohort 4	Cohort 5
Time	12 weeks	12 weeks	8 weeks	3 day intensive	8 weeks mentoring process
	Synchronous Asynchronous	Synchronous Asynchronous	Synchronous Asynchronous	Synchronous Asynchronous	Synchronous Asynchronous
Place	On-campus Home and/or work	On-campus Home and/or work	Hotel Home and/or Work	On-campus Home	Home Work
Use of different ICT	ICohere & e-mail	ICohere & e-mail	ICohere & e-mail	ICohere & e-mail	ICohere & e-mail
Context of learning	Academic & workplace	Academic & workplace	Academic & workplace	Academic & workplace	Workplace
Pedagogy	Student-centred	Student-centred	Student-centred	Student-centred	Student-centred
Focus	Led by *EMPATHY Net-Works* team	Led by *EMPATHY Net-Works* team	Led by *EMPATHY Net-Works* team	Led by *EMPATHY Net-Works* team	Negotiated by mentor & mentees
Types of learner	Student & employee	Student & employee	Student & employee	Student	Managers in the workplace
Relationships with others	Individual & small group	Individual & small group	Individual & small group	Individual & small group	Individual, pair & triad

There are challenges with blended learning and these are reviewed by Allan (2007b). The planning and design of blended learning programmes is more challenging than that of traditional programmes, e.g. face-to-face workshops, as it is likely to bring together a wider range of people, resources and technologies. This all takes time and sometimes requires detailed negotiations. Another issue is student expectations as individuals who sign up for a course may have certain expectations about the types of learning experiences that they are going to engage in and, if these are not met then they may be disappointed. Other issues may arise in terms of access to and availability of appropriate technologies. Sometimes the fire-wall of the participants' employing organisations limits access to aspects of the e-learning systems and this may cause delays and frustration for the learner. If the technology fails then this may cause major problems and result in student/mentees or mentors withdrawing from the project.

Finally, there is an issue about the use of the term 'blended learning.' Oliver and Trigwell (2005) raise the question about whether or not you can blend pedagogies. My own view is that a particular blended learning programme will be underpinned by one particular pedagogy but that it is possible to introduce specific activities that are located within another pedagogy. For example, the *EMPATHY Net-Works* project was underpinned by social theories of learning. Within the module, there were two learning activities based on a different approach, i.e. we recorded interviews with guest speakers and these were available as audio files (an example of a didactic approach to teaching and learning) and we also used formative and summative multiple choice tests as a means of enabling the students to develop their use of technical LaSCI jargon (a behaviourist approach). In theory, this programme presented a blended pedagogy but, in reality, the module was clearly located within social theories of learning and the students worked together and supported each other as a learning community throughout the module and all of its learning activities.

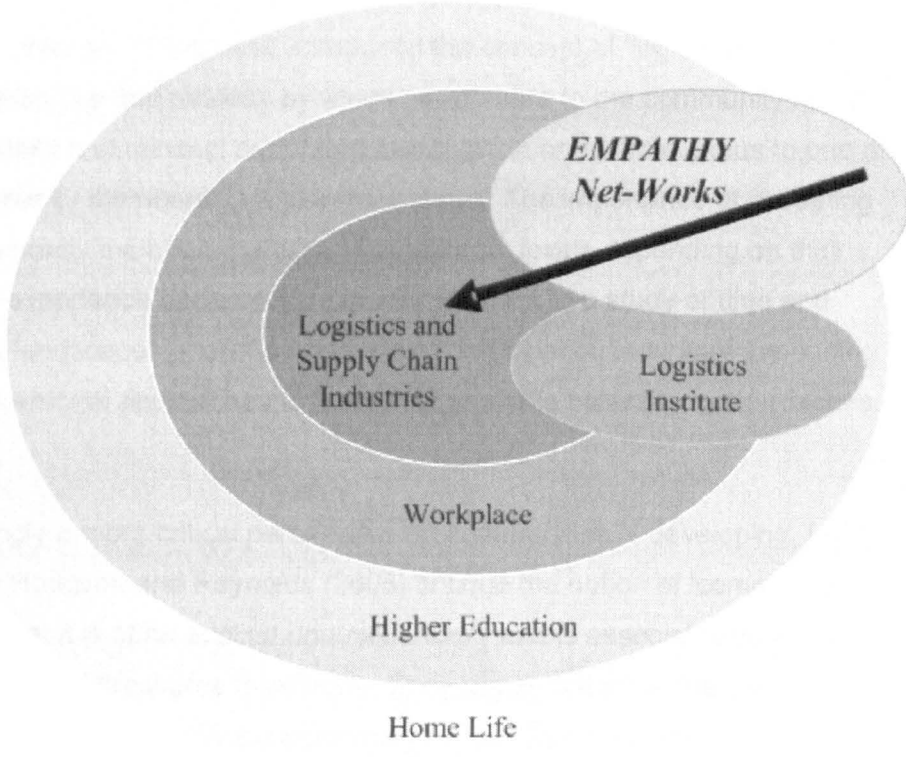
3.4.3 Communities of practice

The design of the *EMPATHY Net-Works* taught module was underpinned by social theories of learning and the learning experiences were designed to support students entering a career in the LaSCI. The work of Lave and Wenger (1991). whose concept of 'communities of practice' provides a discourse based on social theories of learning, is important as it underpins the design and learning processes involved in the taught module (and also e-mentoring). Their work is based on the assumptions that learners are social beings, individuals learn when they make connections between ideas and their experiences, and that knowledge may be developed by working with others in shared enterprises.

Wenger (1998) suggests that communities of practice are free-flowing and develop out of existing communities of interest and networks. More recently, the focus has shifted to managed communities of practice (e.g. Swan *et al* 2002; Lewis and Allan 2005) where facilitators enable the community to work towards goals that match the organisational ones. Pauleen and Yoong (2001) explore boundary crossing within networked communities. *EMPATHY Net-Works* was an example of a managed community of practice, and it involved a blend of face-to-face and virtual communications, and enabled members to cross the boundaries of home, the university, and the workplace including the LaSCI. At the start of their involvement in the project, student/mentees joined the communities of the university, Business School and *EMPATHY Net-Works* project and then moved into new communities and networks within the LaSCI (see Figure 3.3). Members of the project team facilitated the students/mentees' movement into the university-based communities while their transition into the LaSCI was often mediated and supported by their mentor.

Figure 3.3. *EMPATHY Net-Works* project: working across boundaries and communities

From: Allan, Craig, Loureiro-Koechlin and Robinson (2007).



In the context of the *EMPATHY Net-Works* project, one of the purposes of the project was to enable the student/mentees to join LaSCI communities of practice. This involved the project team in developing a boundary spanning community to enable student/mentees to make a career journey into the LaSCI (see Figure 3.3). This process was supported by two activities: mentoring with experienced managers working in the LaSCI; and also opportunities to engage with industry-related activities such as seminars and workshops organised by the Logistics Institute. Wenger (1998: 86) suggests

that these learning communities must be in existence over a period of time if they are to be effective:

> The development of practice takes time, but what defines a community of practice in its temporal dimension is not just a specific minimum of time... [but] .... Sustaining enough mutual engagement in pursuing an enterprise together to share some significant learning... communities of practice can be thought of as shared histories of learning.

Lave and Wenger (1991) also introduced the concept of 'legitimate peripheral participation,' i.e. the process by which newcomers to the community move from a position of minimal peripheral participation or outsider status to one of full community membership and insider status. The importance of accepting that community members participate at different levels depending on their levels of experience and expertise is very relevant to a study of time and temporal landscapes. Individuals' levels of participation may vary depending on their personal approaches to time, their work-life balance or other factors.

Increasingly a more critical perspective on communities is developing, for example Hodgson and Reynolds (2005) critique the notion of 'community' and suggest that it is often applied unquestioningly and is associated with consensus and pressures to conform. They argue that individuals who do not conform to the community expectations may become marginalized. This is relevant to the current study as student/mentees or mentors who are unable to meet the temporal (or other) expectations of their mentor, mentee or e-tutor may become marginalized. McConnell (2005) discusses the importance of the time that is required to develop trust and a nurturing environment within a VLC. Dirckinck-Holmfield *et al* (2004) highlight the importance of designing VLCs to enable different patterns and types of interaction, for example active participation and quieter periods of reflection. In addition, Boden and Molotoch (1994) suggest that e-learners may 'upgrade' from virtual to other means of communication, e.g. phone or face-to-face, if they are dealing with difficult situations; they call this the 'compulsion of proximity.' This suggests that time is not only required for developing trust and participating in community activities but members may need to take 'time out' to communicate with each other by other means. This issue of trust in online communities is also commented on in Chapter 2.

3.4.4 Module outline

This aim of this section is to provide a brief description of the module, Women into Logistics and Supply Chain management. The learning outcomes of the module were to enable participants to:

- Critically evaluate the LaSCI with reference to opportunities for graduate employment
- Critically evaluate individual, group and organisational communications and identified strategies for improving them
- Demonstrate the development of a range of communication skills including their ability to motivate others and negotiate with individuals or groups
- Critically evaluate their management skills and produce a personal development plan.

The module was designed to enable students to identify and develop the necessary knowledge and skills to enable them to enter the LaSCI at a management level. A focus for the module was personal and management development with a special emphasis on the requirements of the LaSCI. The module provided a framework for the development of self, awareness of self in relation to others and the development of their ability to work in a management capacity. The project team developed a flexible and innovative blended module involving a mixture of face-to-face and online learning activities. The underlying pedagogic framework for the module was based on social theories of learning and, in particular, the concept of communities of practice (see previous section). This blended programme of activities was designed to enable participants to develop and explore their knowledge and understanding of the LaSCI by the following learning and teaching activities:

- Attendance at university-based workshops covering personal and management development, and an introduction to the LaSCI
- Guest speakers who were experienced women managers from the LaSCI

- Individual e-learning activities, e.g. Skills assessment, personal action planning, reflection on learning
- Logistics tests, i.e. multiple choice tests on the use of the language of the LaSCI
- Virtual group activities including an inquiry based group activity on a LaSCI theme
- Podcasts of interviews with women managers
- Logistics safari, i.e. a physical tour of LaSCI organisations.

An outline programme is presented in Appendix B. Students who successfully completed the academic requirements of the module achieved 10 credit points at postgraduate level (Level 7).

3.4.5 Student outcomes

60 students were recruited onto the project and 52 of them successfully completed the module, 6 students withdrew from the module as they had gained employment either before they could start the module or during the module, and two students signed up for mentoring only. The outcomes of the project are illustrated Tables 3.6 and 3.7.

Table 3.6. Summary of module outcomes

	Module outcomes		
	Pass	**Did not attend/ Withdrew**	**TOTAL**
Cohort 1	13	1	14
Cohort 2	17	2	19
Cohort 3	8	3	11
Cohort 4	14	0	14
Cohort 5	Did not enrol on module		0
TOTAL	52	6	58

Table 3.7. Summary of project outcomes

	Employment Status							
	Unemployed	Underemployed	Career break	Gained Employment or Promotion	Entrepreneurs	Further/Higher Education	Unknown	Total
Cohort 1	1	0	0	7	2	2	2	14
Cohort 2	0	14*	0	3*	1	(5)	1	19
Cohort 3	1	4	0	4	0	0	2	11
Cohort 4	2*	2	1	9	0	(1)	0	14
Cohort 5	0	0	0	0	2	0	0	2
TOTAL	4	20	1	23	5	2	5	60

* These students also enrolled on further or higher education programmes.

The following quotations, obtained from project evaluation forms, illustrate that some students had a limited understanding of the LaSCI at the start of the module. By the end of the project, many were eager to pursue a career in logistics and had a positive view of the industry.

> Initially I had no true comprehension of what was exactly involved in logistics or supply chain management and although this has been a steep learning curve I have enjoyed every moment. I would never have considered a career in this area prior to taking this course.
>
> Student X

> I now plan to look for a job in logistics and to try and get some work experience within humanitarian aid logistics but will also carry on looking for a job related to my degree as I could see myself working in either role.
>
> Student H

> I started the course without any knowledge of logistics. I have ended the course with knowledge and awareness of the industry and its impact upon our daily lives. I now look at the huge trucks on the road with 'respect' instead of a hindrance.
>
> Student K

Overall, the project was considered successful in the sense that it achieved the targets set by the European Social Fund. From the university's perspective, both student and external examiner feedback was extremely positive.

3.5 Mentoring

3.5.1 Background

Mentoring is a process that involves learning from a more experienced practitioner and it is a well-documented approach to career development and progression in the workplace (Clutterbuck 2001). Research by Headlam-Wells, Craig and Gosland (2006) suggests that both the mentee and the mentor benefit from the experience. However, Hunt and Michael (1983) point out that poor or abruptly-ended mentoring relationships can have negative consequences for the mentee who may experience frustration, a loss of self-esteem, and a sense of betrayal.

Mentoring provides a well-researched and commonly used approach to encouraging and enabling women to progress their careers (Headlam-Wells 2004; Headlam-Wells, Craig and Gosland 2006). There is a growing interest in mentoring as a means of tackling women's under-representation within particular disciplines, industries, or roles and this is summarised by Headlam-Wells, Craig and Gosland (2006). They illustrate that mentoring is particularly important as a means of enabling women to progress into management or to enter industries that have a male-image. The *EMPATHY Net-Works* project was designed to challenge the under-representation of women in the LaSCI as it: enabled women to develop their knowledge of the industry; promoted opportunities in the LaSCI which has a male-image and offers good career opportunities; and provided role models of successful women in these industries by introducing them to guest speakers and mentors. The role of the mentors was perceived as vital by the project team. Mentors could encourage the student/mentees to change their perceptions about their career potential and the LaSCI through the example of their own achievements and career paths.

Although mentoring is a well-established approach to personal and career development, the use of e-mentoring is still developing both within the workplace and higher education. Headlam-Wells, Craig and Gosland (2006) identified its value in terms of supporting women's careers in a flexible manner and they illustrated that e-mentoring can be integrated into an individual's work, studying and/or family commitments. In addition to the module, the *EMPATHY Net-Works* project provided e-mentoring opportunities in which the student/mentees were matched with an experienced woman manager who provided a role model and access to business networks and the LaSCI. The project team also facilitated opportunities for students extend their networks and meet potential role models by attending seminars and conferences organised by The Logistics Institute.

The *EMPATHY-Net-Works* project employed new technologies to extend the potential of mentoring to include e-mentoring. While there is an extensive literature on e-learning in the UK (e.g. Salmon 2004, Mason and Rennie 2006, McConnell 2005), e-mentoring is a developing area. Examples of published research included: a case study on the use of email to complement face-to-face mentoring in schools and universities (Green and Davies 2002); and use of e-mentoring to support women into engineering (Kasparisin *et al* 2003).

Many e-mentoring schemes involve the use of email as the sole means of electronic communication (Harrington 1999; Huang-Nissen *et al* 1999; Milne 2005; Purcell 2004). Existing research, e.g. Headlam-Wells, Craig and Gosland (2006), suggests that mentors and mentees use a range of communication tools (private e-mail, telephone, face-to-face meetings, e-mentoring communication tools) in their mentoring processes. They also demonstrated that both mentees and mentors prefer to meet each other face-to-face or talk over a telephone rather than rely solely on ICT. In addition, they found that time to engage with the mentoring process was an issue for both mentors and mentees. However, they did not explore the issue of time in detail. The role of technology to support e-learning and e-mentoring is described in the final section in this chapter.

3.5.2 The mentoring process

All of the student/mentees who enrolled on the project were given the opportunity to work with a mentor on a one-to-one basis. In cohorts 1-3, the mentoring process was introduced during week 6 of their taught module. Cohort 4 (the 3 day intensive) were provided with the opportunity to sign up for a mentor after the end of the taught module and cohort 5, who did not enrol on the module, started their project activities with mentoring. Mentors were recruited using existing networks within HUBS and the Logistics Institute, advertisements within the LaSCI, and by word-of-mouth. Each group of mentors worked through an online orientation process lasting three weeks and this introduced them to e-mentoring and the iCohere system.

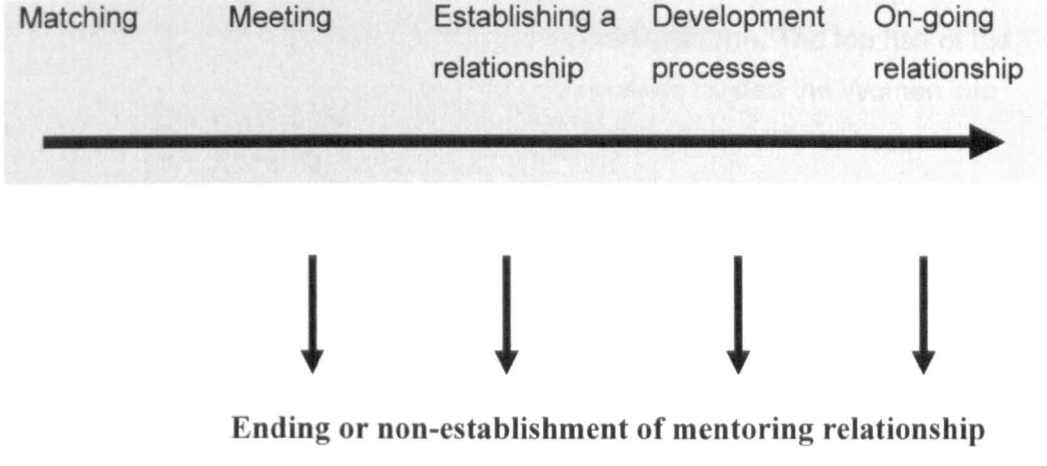
It is beyond the scope of this work to describe the detailed process by which student/mentees and mentors were matched. However, the process involved them completing a questionnaire and the results from this were analysed using a matching software package which highlighted optimum mentor pairs based on a pre-determined set of criteria. The theoretical basis for this process was described in Headland-Wells, Craig and Gosland (2006) and also Allan, Craig, Loureiro-Koechlin and Robinson (2007).

The mentoring process followed a developmental cycle illustrated in Figure 3.4 and this is presented in detail in Allan, Craig, Loureiro-Koechlin and Robinson (2007). The start of the mentoring process was the matching process and this resulted in introductory e-mails to the mentees and mentors giving them information about each other and contact details. It was then left to the mentee/mentor pair to contact each other and to arrange a meeting (face-to-face, online or telephone). Once the mentee and mentor had made contact with each other then they worked together using a mixture of face-to-face and/or virtual communication tools and/or mobile phones/text messages. This enabled the pair to establish a relationship and to embark on personal development processes. Mentoring pairs chose how to communicate with each other, e.g. using iCohere or their personal or business e-mail systems, using text messages and phone calls, or through face-to-face meetings or a blended mixture of these methods. In the project evaluation process, the

mentees and mentors reported that they used a blended approach to mentoring. Personal and business e-mails formed the most commonly used method of communications and the iCohere private mentoring discussion spaces were used as secondary means of communications.

Typical examples of development processes included: feedback on *curriculum vitae;* help with job applications; and company visits. Some mentee/mentor relationships ended when the student/mentee had gained employment and/or promotion while others are ongoing at the time of writing. In Figure 3.4, the vertical arrows indicate examples where the mentoring pair either did not form i.e. there was no further contact after the first meeting, or where the relationship ended prematurely (according to feedback from the mentee or mentor). This mentoring cycle is relevant to this study as temporal issues do appear to affect the mentoring relationship and process. This is explored in more detail in Chapter 7. Once this process was started off by the project team then it was left up to the mentoring pairs to manage their mentoring process. In my role of e-mentor co-ordinator, I provided back-up support as and when required by the mentees or mentors.

Figure 3.4. Diagram showing the mentoring process



3.5.3 Use of information and communication technology

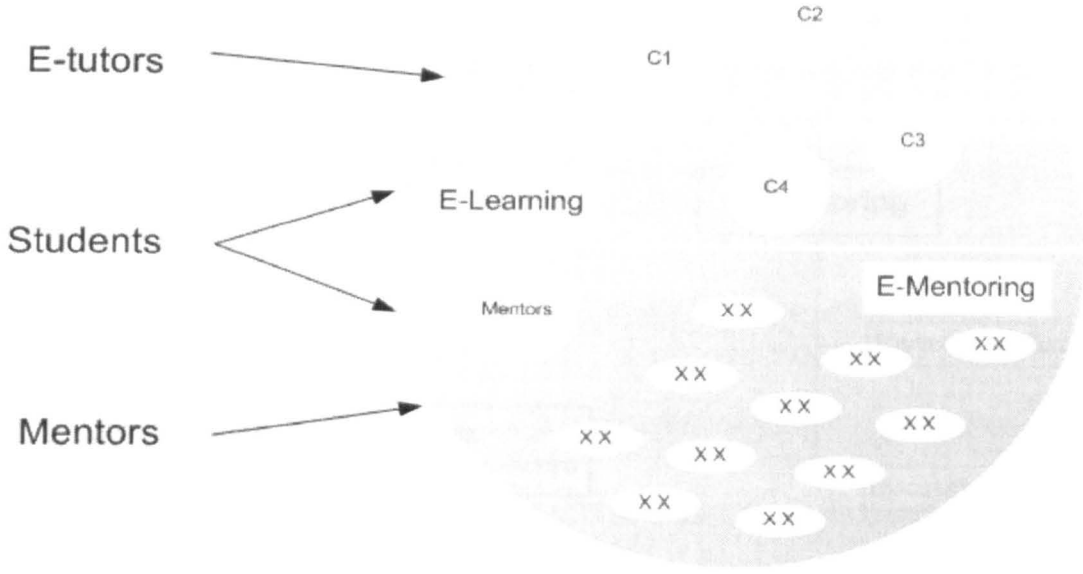
The *EMPATHY Net-Works* project used a range of information and communication technologies to support the project process. These included: a website for dissemination and recruitment processes; a virtual conferencing site to support e-learning and e-mentoring, and e-mail for everyday communications between project members. This section will focus on the e-learning and e-mentoring environment, iCohere.

iCohere (www.iCohere.com) is a web-based collaboration and communications software. iCohere was chosen to host the *EMPATHY Net-Works* project for a number of reasons. First, it was used in previous e-mentoring projects (*EMPATHY and EMPATHY* EDGE) so there was system's expertise within the Business School and also team members were confident that it would fulfil our technical requirements. Second, it is a secure, reliable, password protected virtual environment. Our previous experience suggested that project members would find the system accessible and easy to use. Third, the iCohere environment contains a large range of interactive tools all of which can be customised. Fourth, participants' accounts can be categorised in groups and members can be given different roles and access to different resources.

The *EMPATHY Net-Works* online system was established to support the needs of the e-learning and e-mentoring aspects of the project. Figure 3.5 shows the two environments within the iCohere platform. The top half of the circle represents the e-learning environment which hosted the Women into Logistics and Supply Chain Management module. Four different sub-environments were created, i.e. one for each cohort of students. Cohort 5 were only involved in the e-mentoring aspect of the project and so they were not provided with access to the e-learning part of the iCohere site. The bottom half of the circle represents the e-mentoring environment which hosted mentoring pairs' activities, and guidance and support activities for mentors and mentees.

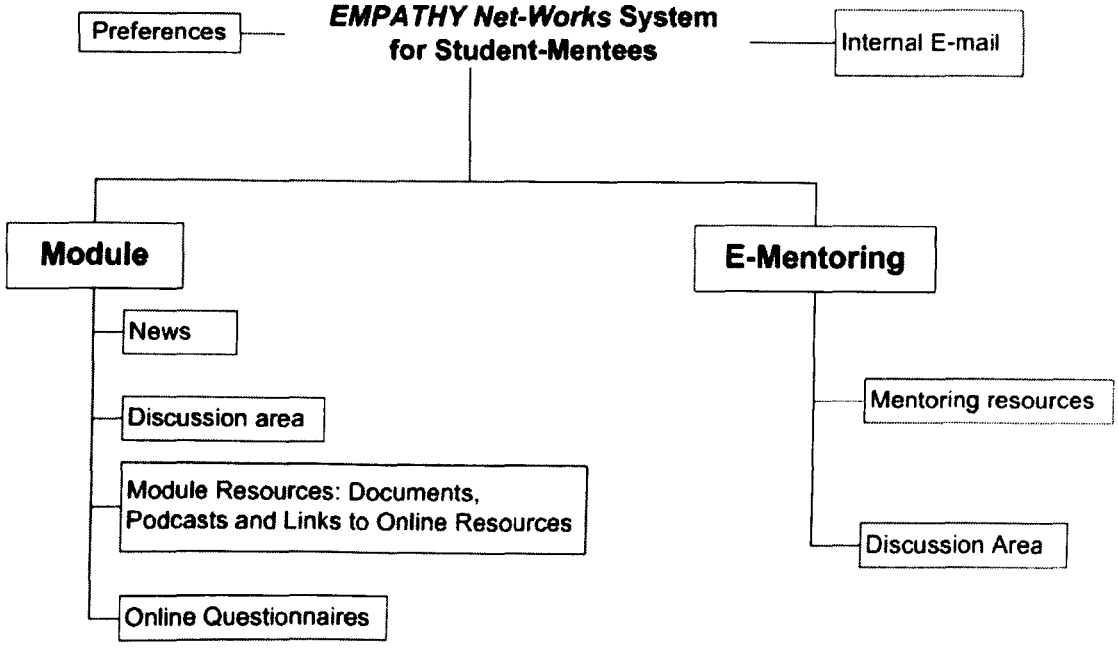
Figure 3.5. *EMPATHY Net-Works* iCohere site plan

Taken from: Allan, Craig, Loureiro-Koechlin, Robinson (2007).



The iCohere administration system enabled each project member to have access to a personalised view of the online environment. Student/mentees had access to all e-learning materials and discussion group activities relating to the module learning and teaching activities for their cohort. In addition, they had access along with their mentor to a private e-mentoring pair discussion group. Figure 3.6 shows the student/mentee view of the iCohere site. Student/mentees were given separate areas to participate in module and mentoring activities. However, they also had access to features that did not belong to either aspect of the project, i.e. the preferences and the e-mail areas. The preferences area in the iCohere site enabled the student/mentees to personalise their site, e.g. change the colour of their view of the site, upload an image or change their password. ICohere provided an e-mail function that was only available to project members. This system had the advantage that these iCohere e-mails were automatically forwarded to the project members' personal or business e-mail systems.

Figure 3.6. *EMPATHY Net-Works* site structure for student/mentees
Taken from: Allan, Craig, Loureiro-Koechlin, Robinson (2007).



The e-learning aspect of the iCohere site provided access to a news area, a discussion area, module resources and also online questionnaires. The news items were automatically forwarded to the participant's personal or business e-mail system. The discussion area was the focus for the module's learning and teaching activities. Each activity was started in a new discussion thread and these were organised and labelled according to the week of the module. Conversations in discussion boards were asynchronous, i.e. student/mentees did not need to be present at the same time but they could post their messages at a time that suited them and then return and read any response to their messages in their own time. The system also provided a weekly digest which contained all new items and discussion group messages posted during that week. The weekly digest was sent to all student/mentees' personal or business e-mail system. Within the module site, student/mentees also had access to chat rooms were they could talk to each other in real time. Each of the cohorts were managed in this way with the exceptions of Cohort 4 where the module was delivered as a three day intensive and their iCohere site was structured on a daily rather than a weekly basis. Cohort 5 did not have access

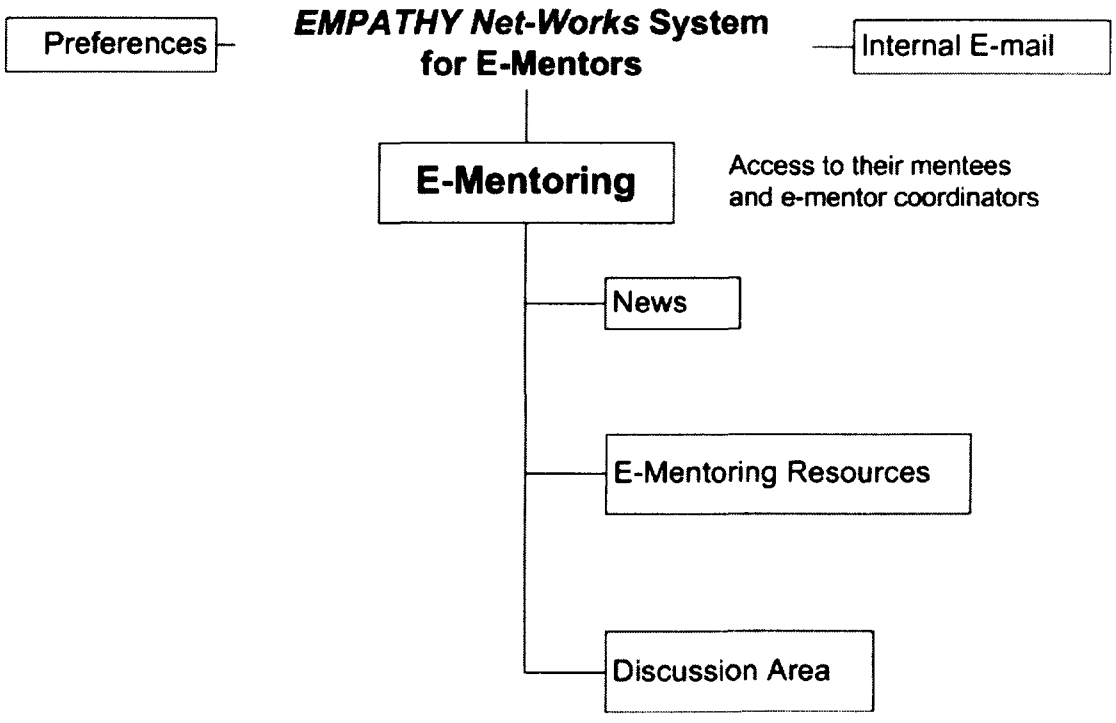
to the module site as they were only involved in the e-mentoring aspects of the project. The module resources area contained all the learning and teaching resources required for the module. This included text-based documents, PowerPoint files, audio and video podcasts, and also weblinks. Online questionnaires were used as part of the module's learning and teaching activities, e.g. multiple-choice LaSCI tests, and also for project evaluation purposes. Example screen shots are presented in Appendix C.

The e-mentoring side of the iCohere site for students, the right-hand side of figure 3.6, provided mentoring resources (documents and weblinks) and also a private discussion areas for mentoring pairs. Example screen shots are presented in Appendix C. There was also a public mentoring experience discussion area for each cohort of students. Figure 3.7 shows the structure of the iCohere environment for mentors. As with the student/mentees' version of the site, mentors had access to the preferences section, the internal e-mail feature and their own news section. They did not have access to the *EMPATHY Net-Works* module aspect of the iCohere site. They had access to the same mentoring resources as the student/mentees, their private mentoring pair discussion area, and also a general mentors discussion area. Some mentors had more than one mentee and they were provided with a separate private discussion area for each of their mentees. In my role of e-mentor co-ordinator, I facilitated the mentoring process and this involved introductory activities such as ice breakers, guidance on the mentoring process and opportunities to share mentoring experiences.

The tutors had access to all the module aspects of the iCohere site but not the mentoring part of the site. Project team members had access to all areas of iCohere with the exception of the private mentoring pair discussion areas.

Figure 3.7. EMPATHY Net-Works site structure for mentors

Taken from: Allan, Craig, Loureiro-Koechlin, Robinson (2007).



3.5.4 Mentoring outcomes

Allan, Craig, Loureiro Koechlin and Robinson (2007) summarise the outcomes of the evaluation process and this showed that the mentoring pairs engaged in a development process which is represented in Figure 3.4. The majority of mentoring pairs (25 pairs) were satisfied or highly satisfied with the mentoring process. Another 5 pairs stated that they were not satisfied and 13 pairs did not complete the evaluation process.

In terms of the mentees and mentors who were satisfied with the process they had the following characteristics: established a working relationship; spent time getting to know each other; 'met' often i.e. weekly, fortnightly, monthly or intermittently (either by phone, chat room or face-to-face); set goals or targets at the end of each meeting; described their mentoring process as 'structured' or 'organised.' They reported that they felt leisurely and reflective in their meetings. In contrast, mentoring pairs who reported that they were not

satisfied thought three months was too short a time to get to know each other or establish a relationship that was based on electronic communications.

3.6 Summary

This chapter provides a detailed description of the *EMPATHY Net-Works* project, the taught module and e-mentoring. I provide an outline of the context of the *EMPATHY Net-Works* project, a university business school in the UK, and I explain how the project was embedded within its organisational context. I provide a description of the *EMPATHY Net-Works* project and topics covered here include: project aims and outcomes; project members including the student/mentees and mentors; and the project staffing and management process. Next, I provide an introduction to the taught module starting with a discussion about blended learning and also communities of practice. This is followed by an outline of the module, its content and learning and teaching strategies. The next section provides an introduction to mentoring and e-mentoring, and then considers e-mentoring in the context of *EMPATHY Net-Works*. This chapter concludes with an overview of the virtual learning environment, iCohere, which supported both the e-learning and e-mentoring aspects of the project.

The next chapter, Chapter 4, provides the theoretical frameworks for this research.

Chapter 4. Theoretical framework

4.1 Introduction

The aim of this chapter is to present and explore the theoretical framework for this study. As explained in Chapter 1, my starting point for this study was an intention to explore the temporal experiences of individuals engaged in an e-learning and e-mentoring project. However, I soon realised that the temporal experiences of e-learners was influenced by the temporal landscapes of the *EMPATHY Net-Works* project and the Business School. This is represented in Figure 4.1 (which was first presented in Chapter 1). The temporal experiences were also influenced by the project-funder (the ESF), the LaSCI and also the home lives of students and mentors. However, it was beyond the scope of this study to explore the wider context. I realised that I wanted to frame my study using the concepts of agency (the action of individuals that lead to the creation of society) and also the concept of structure (the view that society is a system of relationships that determines the actions of individuals).

My reading of sociological theories introduced me to the works of Giddens and Bourdieu who both attempt, in different ways, to bridge the concepts of structure and agency. In this Chapter, I outline both theoretical approaches and then I explain my rationale for deciding to use Giddens's structuration theory as a framework for exploring the temporal life of the *EMPATHY Net-Works* project.

4.2 Giddens's structuration theory

Giddens's (1984) seminal work, *The Constitution of Society,* attempts to cross the division in traditional sociological theory between structure and agency. Structuralists, such as Marx, explain social behaviour in terms of social forces (such as class structure), which limit or enable what individuals can do and also the ways in which they do it. In contrast, other sociological perspectives, such as hermeneutics and phenomenology, focus on individuals or the human agent as the primary actor in social life. I first came across Giddens's work in

Figure 4.1. Relationships between individual experiences and project and organisational temporal landscapes

discussions with colleagues who, talking from the perspectives of information systems, were interested in the relationships between structure and agency with respect to the development and use of information and communications technologies. This approach appeared relevant to this study as *EMPATHY Net-Works* involved the use of iCohere, an e-learning and e-mentoring system. My colleagues pointed me in the direction of research such as Orlikowski (1992 and 2000), Schultze and Orlikowski (2004) and Evans and Brooks (2005) who used social theory and, in particular, structuration theory as a way of understanding information systems. These authors were of particular interest to me as they investigated information systems, including online group interactions, and their relationships between society, organisations, and individuals. This appeared to offer a potential way forward for exploring the relationships between structure and agency with respect to the temporal experiences and landscapes of the *EMPATHY Net-Works* project.

The following sub-sections present an introduction to Giddens's structuration theory and this is divided into: agency; structure; time and space; and structuration theory and information systems.

4.2.1 Agency

Human agency is the 'capacity to make a difference' and it relates to a 'continuous flow of conduct or durée' rather than discrete acts (Giddens 1984). This concept of agency allows for action that relates to the individual e.g. as a result of their historical, cultural and social context, and it also includes action as a result of an individual's role or position within an organisational or their professional practice. Giddens explains the concept of agency by suggesting that individuals are reflexive, i.e. we monitor and change our actions in response to others. Consequently, it is important for sociologists to analyse social practices, which may be seen as 'ongoing streams of action.'

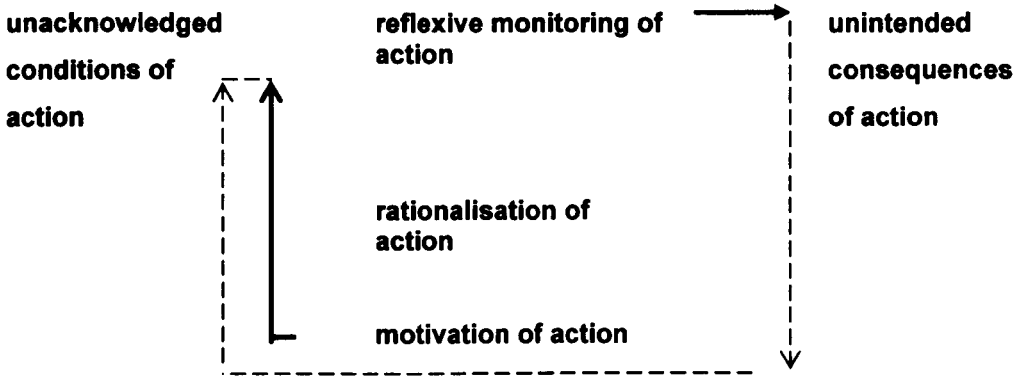
Human agency is linked to power and the ability 'to make a difference'. Power involves the exploitation of resources and Giddens writes about two types of resources: authoritative resources which come from the co-ordination of human activities, e.g. managing a project or engaging in a mentoring process; and allocative resources which relate to material products or resources. Consequently, in this project and research, my agency or capacity to make a difference arises as a result of: my personality (which has been affected by my experiences as a student, researcher, academic, mother); my role as an academic in HUBS; and as student on the EdD programme; and my organisational positions e.g. project leader and Director of Learning and Teaching. My agency is linked to my power to exploit authoritative resources, e.g. managing the project team, and also my power to allocate resources e.g. to manage the project budget. I am reflexive and change my actions in response to feedback from others both within the project, HUBS and the wider university.

In his stratification model, Giddens (1984) identifies three dimensions of the agent: motivation of action; knowledgability and the rationalisation of action; and reflexive monitoring of action. This is illustrated in Figure 4.2. Giddens

suggests that on a day-to-day basis individuals are involved in routine practices and that social relations are subject to routinization over time and space.

The motivation of action is the wants or desires of the individual or agent that provides the drive. This motivation may be direct, intense or purposeful or it may be indirect and much more routine (Stones 2005). An example of a direct motivation is where I may plan and lead a meeting in a particular way in order to achieve my particular purpose. In contrast, an indirect motivation could be where I log onto my computer without thought, i.e. it is an everyday routine practice.

Figure 4.2 Giddens's stratification model of the agent and action
Taken from Giddens (1984).



The second dimension is knowledgability and the rationalisation of action. Giddens (1984) writes about 'practical consciousness' which links the concepts of tacit knowledge and everyday actions. Tacit knowledge is the practical knowledge that individuals bring to their every day actions and it is often taken for granted and un-noticed. It includes knowledge that individual project members may bring to the *EMPATHY Net-Works* project, e.g. about the organisational context, about projects and project management, about e-learning and e-mentoring, as well as the delivery of academic programmes. It

is this second dimension that provides a link between agency and structure. In this dimension, the agent uses his/her knowledge of the social structures in order to achieve the desired outcome. This use of their knowledge of the social structures is likely to reduce the unintended consequences of action. This process is one of the ways in which social structures are reproduced.

In addition, Giddens (1993) pointed out that individuals are engaged in many different actions or projects at the same time and this will result in either a tacit or explicit 'hierarchy of purposes' which will categorise that individual's approach to a range of pursuits. Typically, the individual or agent will be engaged in a number of different roles as they are carrying out their actions in different contexts. This links to Merton's idea (reported in Stone 2005) that individuals will have a variety of 'status-sets' (or multiple roles) such as mother, worker, mentor, political activist. In addition, individuals will have a number of role-sets linking to a particular status-set, e.g. as project leader I have a number of role-sets in which I relate to team members, students, mentors, other colleagues within the Business School, the funding agency etc. This is relevant to this research as individual project members will have multiple roles in their lives and their ability to engage with the project will be affected by their implicit or explicit 'hierarchy of purposes.'

The way in which individuals manage and integrate their motivation of actions and rationalisation of action with respect to their different role-sets and status-sets in different contexts is through the reflexive monitoring of action. Giddens (1993: 89) writes:

> One's life activity does not consist of strung-out series of discrete purposes and projects, but of a continuing stream of purposive activity in interaction with others and with the world of nature: a 'purposive act'..... is only grasped reflexively by the actor, or isolated conceptually by another agent.

To conclude this section, I want to introduce the concept of the 'double hermeneutic' which relates to the 'mutual interpretive interplay between social science and those whose activities compose its subject matter' (Giddens 1984: xxxii). In other words this concept of the double hermeneutic relates to the incorporation of theories of the social sciences into the everyday knowledge

base of social actors thus affecting their behaviour. This concept is relevant to this study because as both researcher and project leader I have developed an understanding of aspects of the social sciences relevant to this study and this knowledge is integrated into my everyday knowledge base and so it will affect (and change) my behaviour. To provide a more specific example, as a result of reading the temporal literature I have developed my understanding of time and timescapes, and this knowledge is integrated into my everyday knowledge base and so it is likely to affect my behaviour.

4.2.2 Structure

Giddens describes structure as the 'rules and resources' that act as 'common interpretive schemes in a particular social system.' Structure exists as 'memory traces' and is 'instantiated in action' (Giddens 1984: xxx1). He argues that the relationship between structure and practice is similar to that between language and speech. Structures organise practices and are reproduced by practices. Structures do not physically exist and cannot be directly observed. However, individuals will experience structures as a force that drives a particular behaviour. Giddens differentiates structure from system and he describes the latter as the 'stable patterns that give some orders to interactions' and systems exist in time-space. This means that systems can be observed in particular locations and times. This concept of Giddens is called structuration and is explored in more detail below.

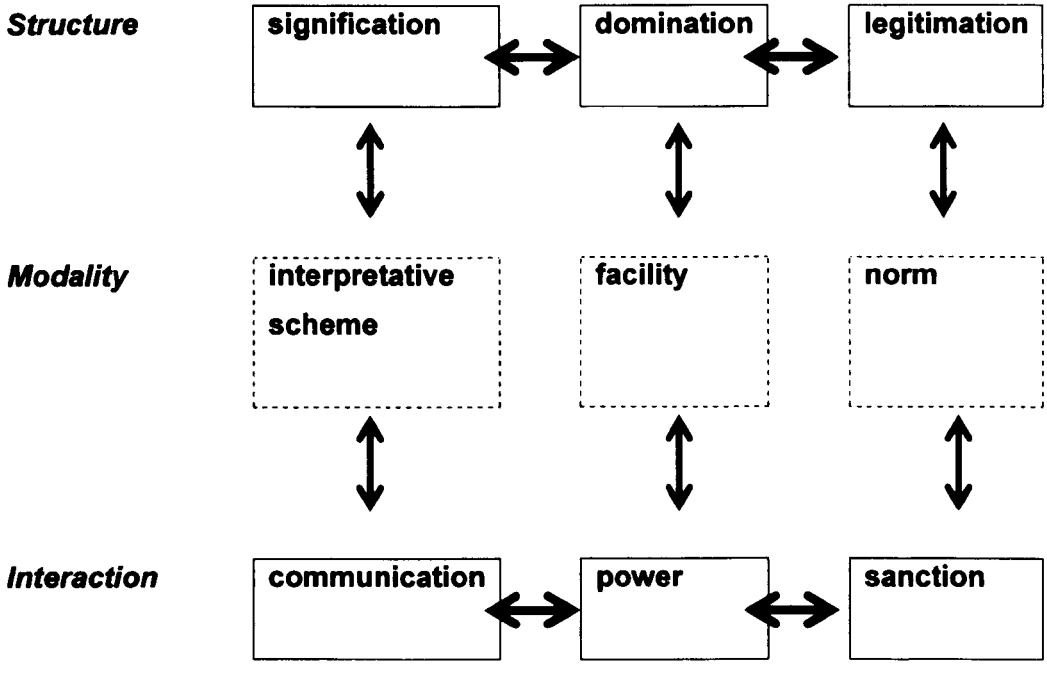
The basic idea behind structuration theory is captured in the phrase "duality of structure" which means that people make up society and they are also constrained by it. In other words, structure and action are two sides of the same coin; structures are created and changed as a result of action and as agents we act in a manner that is affected by structure. 'The structural properties of social systems are both the medium and outcomes of the practices they recursively organise" (Giddens 1984: 25). The dimensions of the duality of structure are presented in Figure 4.3.

In this diagram, social structure and human interactions are divided into three dimensions and the recursive nature of these dimensions is illustrated by the

modalities. The use of three dimensions is for the purpose of analysis. For example, as individuals communicate with each other then they draw on interpretative schemes to help make sense of the interactions. At the same time, these interpretive schemes, which are embedded in the social structures as meaning or signification, are modified thus changing the social structure. One of the benefits of Giddens's structuration theory is that it provides a potential language and framework for exploring structure and agency within the *EMPATHY Net-Works* project.

Structuration is the process in which the duality of structure, i.e. both social structures and human interactions or agency, change over time and space. Agents, as a result of their actions, constantly produce, reproduce and develop the social structures. At the same time, these social structures constrain and enable them. This can be summarised by the phrase 'we create society at the same time as we are created by it' (Giddens 1984: 14).

Figure 4.3. Dimensions of the duality of structure
Taken from: Giddens (1984).



4.2.3 Time and space

Giddens (1984) drew on Hägertstand's (1976) work on time-geography to link his structuration theory with time and space. Giddens considered flow of actions through time and their phenomenological relationships with both what is present and also absent. In addition, he emphasised the ways in which these flows of action through time were affected by both the embodied nature of agents and also by them being situated in a particular physical location. From Giddens's perspective these factors both enabled and constrained agents' actions. The temporal factors that Giddens was concerned with are neatly summarised by Stone (2005: 27) as:

1. The movement of the body across time toward death, bounded by the life span
2. The indivisibility and corporeality of the body
3. Time as a scarce resource
4. The limited capability of human beings to participate in more than one task at once or to be in more than one place at a time
5. The limited 'packing capacity of time-space' such that no two human bodies or physical objects can occupy the same space at the same time.

A number of these factors were referred to in Chapter 2, e.g. the concept of a life span and also that of time as a scarce resource. The concept of the indivisibility and corporeality of the body has not been referred to explicitly before in this work neither has the idea of the limited packing capacity of time-space. The concept of multi-tasking and being in more than one space at a time is perhaps challenged by notions of working in a physical and virtual world and being engaged in different tasks, e.g. conversations at the 'same' time. It is perhaps worth highlighting that Giddens wrote his seminal work in 1984 which was well before the rise of Internet communications and virtual worlds.

These temporal factors, identified by Giddens (1984), all constrain and enable individuals or actors and they are likely to have an impact on the three social structures identified in the duality of structure, i.e. signification, domination, legitimation. Each of these structures will include embedded time-space considerations and these will affect the actions and interactions of agents. This inclusion of time-space into structuration theory provides a potential

analytical tool for exploring the temporal relationships and landscapes of the *EMPATHY Net-Works* project.

Spatial categories were also considered by Giddens (1984) and these are relevant to this study which is based on a project located in both a physical and virtual environment. Giddens identified *locales* which are the setting for interactions, e.g. conversations around a photocopier or in a meeting room, and virtual discussions 'located' in a virtual environment such as iCohere. In addition, he identified the *regionalisation* of these activities into distinct zones rather like the rooms of a house. In the context of this project it includes the project office, teaching rooms, meeting rooms. Giddens also identified the impact of the *presence availability* of other actors, i.e. are individuals available so that they can meet up, i.e. become co-present. This issue has been touched on in Chapters 2 and 3 because, in an online environment, there are issues of presence and absence, e.g. someone may be present i.e. logged into an e-mentoring system, but they are also 'absent' or not available as they don't post any messages or indicate their presence to others. In addition, Giddens was concerned with the notion of *time-space distanciation*, which is the phenomenon whereby social interactions increasingly involve interactions with people who are physically absent. Finally, Giddens explored the concept of *time-space convergence* that is the compression of time and space. This is illustrated in the increased speed of travel between different places such as London and China in the late twentieth century as compared to the eighteenth century. As mentioned in the section on modernity in Chapter 2, this convergence of time and space has taken on new meanings with respect to the development on Internet communications. One of the implications of this convergence is that as the structuration of social action extends across different peoples, living in different places across the globe, then so there is an increase in the embededness of these practices. A simple example of this practice is the 'MacDonaldisation' or spread of fast food practices.

4.2.4 Structuration theory and information systems

As mentioned in the introduction to this chapter, researchers in the field of information systems have applied Giddens's structuration theory to the development and use of online environments. This work is explored in this section as it provides good examples of the application of this theory to practice and also a critique of Giddens's theory.

Rose (1998) evaluates the contribution of structuration theory to the information systems discipline. His starting point is Archer's (1996) critique that structuration theory conflates structure and agency, and this weakens its analytical power. Archer argues that structure and agency are 'phased over different tracts of time (human action over the short term, structures enduring) which allows their analytical separation' (Rose 1998: 5). Giddens's descriptions of structure, e.g. as 'rule and resources' and existing in 'memory traces' is rather abstract and contrasts with other approaches to looking at structure as a more tangible function of human action. Rose (1998: 6) highlights the important question asked by Archer: 'Why do some forms of social reproduction succeed and become institutionalised, and others do not?' This question is relevant to this study as it is worth considering how temporal structures are reproduced within different educational systems and programmes. Giddens's work is criticised by a number of theorists and researchers, e.g. Rose (1998) and Stone (2005), on the basis that he did not provide methodological examples to illustrate ways in which his theory could be applied to empirical research.

Rose (1998), writing from the perspective of information systems and building on the earlier work of Walsham and Han (1991) and Jones (1997), suggests that structuration theory may be applied to information systems research for three distinct purposes:

> to *theorise* – to re-conceptualise or theorize aspects of the new field ....
>
> to *analyze* – as an analytical framework for the retrospective understanding of the empirical situations or cases
>
> to *operationalise* – to provide operational guidance for practitioners.
>
> Rose (1998: 8)

Orlikowski (1992) uses structuration theory to theorise aspects of information systems. She uses this theory in an attempt to understand the relationships between information technology and organisation. Orlkowski (1992) explores the temporal dimensions of structuration theory and she critiques the time-space discontinuity between the design of an information system and its use. She suggests that the system users and stakeholders need to be involved in a continuous iterative process so that the needs of the stakeholders are built into the social and physical characteristics of the technology. This point is very relevant to this study as the e-learning and e-mentoring system was designed before the start of the taught module and e-mentoring, and so there was a time-space discontinuity between the design and the use of the system.

Jones (1997) critiques the work of Orlikowski and suggests that her model of structuration theory, which includes technology, does not match Giddens's view of technology. Giddens saw structure as existing only in the memory of people and agency as a human attribute and his view of structuration theory did not include physical artefacts such as an information (or e-learning) system. Orlikowski (2000) developed her view of technology in response to this critique and she identified two distinct aspects: technology as artefact; and technology-in-practice. She proposed a practice lens as a means of understanding the relationships between people, technology and social action. It is beyond the scope of this work to explore the relationships between the project members, technology, e.g. iCohere and personal e-mail systems, and social action.

4.2.5 Time and space in information systems

Evans and Brooks (2005) provide an overview of time and space in information systems and they suggest that if structuration theory is applied to information systems then time and space needs to be considered as an integral component of the system. They refer to the work of Alexander (2002) who suggested that there is a strong relationship between time and trust in online collaborative technologies and this finding is in alignment with the work of McConnell (2005), which was outlined in Chapters 2 and 3. Evans and

Brooks (2005) refer to the work of Harrison and Dourish (1996) who argued that the focus on spatial models (such as Figure 3.6 in Chapter 3) in the design of collaborative systems is misleading.

Harrison and Dourish (1996) argue that it is important to distinguish between *space* (defined as the 'structure of the world') and *place* (where the cultural and contextual awareness occurs). Evans and Brooks (2005) also refer to the work of Niederman and Beise (1999) who argue that 'the level of virtuality achieved is dependent on the site and proximity of the work group.' Schultze and Orlikowski (2004) explore the use of metaphor in online communication processes and they found that one of the common metaphors is space versus place. Schultze and Orlikoswki (2004) highlight the challenges involved in research on time and space in online information systems and they suggest that "practitioner-directed discourse suggests that no single, coherent view of virtual organisations exist and none is likely to emerge." However, they do suggest that the use of the lens of structuration theory provides a useful analytical tool for exploring the issues associated with online group processes.

In summary, the first part of this chapter outlines Giddens's approach to bridging the gap between structure and agency, and his structuration theory. It illustrates how Giddens provided a detailed account of temporal and spatial aspects of structuration theory. In addition, this section also explored the work of Orlikowski who adapted structuration theory to take into account the role of technology. Finally, this section considered issues of time, space and place in online information systems.

In my thesis, I have used the work of Giddens and his concept of duality of structure as a theoretical framework. I considered using Orlikowski's adaptation to take into account the role of technology. Although her approach helped me to understand Giddens's work and also how to apply his ideas in practice, I decided not to pursue Orlikowski's ideas. The main reason for this decision is that her work is focused on technology and although the *EMPATHY Net-Works* project used technology, e.g. through the e-learning and e-mentoring environment, this was not the main focus of my study. My main interest is in the temporal landscapes of the Business School and project,

the temporal experiences of project members, and the relationships between the temporal landscapes and the temporal experiences or timescapes of individuals.

The next section, explores the work of Bourdieu who also tackled the issue of structure and agency.

4.3 Bourdieu, *habitus* and field

Bourdieu (1930 - 2002) was a social theorist who also attempted to bridge the concepts of structure and agency. Bourdieu was an anthropologist and his theoretical work was based on his own empirical research as well as other anthropological and ethnographic texts. In his book, *The Logic of Practice,* Bourdieu (1977) addressed the problems in using dichotomies, such as objective vs. subjective, macro vs. micro, and structure vs. agency, as a means to understanding society. He argued that society is dynamic and that human agency has a major impact on shaping social structures and institutions (and *vice versa*). Bourdieu explored the dynamic relationships between structure and action using the following concepts: *positions* and *position-taking, dispositions* or *habitus;* and *field.* In addition, he considered different types of capital, e.g. economic and cultural capital, as well as time. Each of these concepts is described below.

The concept of *positions* relates to the positions that individuals occupy in social space and these may be defined by education, occupation or job role. For example, in the concept of the *EMPATHY Net-Works* project I occupied the positions of project leader, tutor, mentor, mentor co-ordinator and also researcher. *Position-taking* refers to the ways in which individuals take their position and its associated power(s). "Position-taking refers to the choices that actors make that signal their positions to one another in symbolic terms" (Calhoun *et al* (eds) 2007: 261). For example, in the context of my position as *EMPATHY Net-Works* project leader this was symbolised by me having my own office and the project team members sharing an office, and also by me chairing meetings.

According to Eisenberg (2007), the concept of *habitus* developed as a result of Bourdieu's interest in linking phenomenological and interactionalist perspectives (sometimes linked with a subjectivist viewpoint) and structuralist approaches (sometimes linked with the objectivist viewpoint). This concept relates to the site of interplay between position and position-taking or between structure and practice. *Habitus* works rather like a loose set of guidelines that underpin actors' behaviours in a particular context. These guidelines or dispositions are shaped by an individual's experiences within a particular context and they "generate and organise practices and representations" (Bourdieu 1990: 53). Actors in similar positions may share a similar *habitus*; as the environment and individuals change then so does the *habitus*. *Habitus* underpins many everyday behaviours including speech, body language, patterns of socialising, and food and drink preferences. *Habitus* is acquired through repetition and they are not fixed or rigid but are flexible and so provide room for improvisation, e.g. when an individual meets a novel situation. Bourdieu (1990) explains that individual actions are rational and take into account subjective motivations, i.e. they reflect an individual's emotional and spontaneous reactions to a particular situation and also to the other people involved in that situation. Bourdieu suggested that *habitus* was the central focus of analysis for sociology. For example, social groups could be defined by a shared *habitus*. This means that the concept provides a useful tool for understanding a particular setting or culture, as well as individual behaviours. However, while positions and position-taking can be directly observed *habitus* cannot be directly observed and so Bourdieu, in his fieldwork, reconstructed the collective *habitus* of a group of actors as a result of outlining their positions and position-taking and mapping these onto each other.

Bourdieu (1990) also developed the concept of a *'field'* which is the specific context in which positions, position-taking and *habitus* are located. A field is the context or domain of social life and each field has its own set of rules that result in individuals occupying particular positions and these rules support sets of practices. A field is a space that is structured by hierarchy that is based on the unequal distribution of economic wealth, social relationships, symbols or culture (educational achievements). Eisenberg (2007: 2) writes, "fields represent the network of relations between and among positions actors hold

within particular structural or organisational systems." Bourdieu also suggested that, in addition to hierarchies within a field, there are several hierarchies of fields. For example, a university business school is an example of a field and it is located within a university as a field within a hierarchy of fields. In a similar way, if each business school within the UK is considered a field then there is an hierarchy of these fields in relation to each other. Within a business school, the ways in which this field is organised is based on a set of rules that lead to individuals occupying certain positions each of which has an associated level of power or domination. In addition, the underlying rules lead to certain ways of organising which lead to particular practices within the school. Individuals who have worked within a particular field for a long time may understand these 'rules of the game' at an implicit level. However, newcomers may find the rules strange and may inadvertently break them or consciously challenge them.

Bourdieu's (1990) concept of field bridges the dichotomies that he criticised in sociology. In his discussion of the 'network of relations among positions,' he supports the view that actors are both individuals as well as organisational actors. The concept of an interlocking network of fields provides a means by which the dichotomy of macro and micro is bridged. Bourdieu suggested that the positions that individuals take reflect both objective reality as a result of their organisational existence and also their individual subjective reality. Finally, Bourdieu based his theoretical work on his empirical research and, as a result, he bridged the gap between theory and practice (Eisenberg 2007).

In addition to the concepts of positions, position-taking, *habitus* and field, Bourdieu (1990) also developed the concepts of economic, cultural, social and symbolic capital. The possession of different forms of capital provides an underlying structure for the organisation of fields and the generation of *habitus*. Bourdieu described economic capital as relating to the possession or control of wealth or property. In contrast, cultural capital is not visible but is symbolic and it relates to high educational achievement. Social capital is based on social connections or networks and symbolic capital relates to the capability of individuals to use practices as symbols in order to claim and maintain their position(s). Different forms of capital are partially transferable to other forms,

e.g. someone can use their economic capital to pay the fees for an educational programme, which will increase their cultural capital. Some government interventions are intended to increase the capital of participants. For example, in the context of the *EMPATHY Net-Works* project, the funding from the ESF enabled students to enhance their cultural and social capital, while the mentors enhanced their social capital by becoming engaged in new forms of social and professional networks.

Finally, I explored the work of Bourdieu with respect to time. In *The Logic of Practice* (Bourdieu 1990: 81) he states that:

> Practice unfolds in time and it has all the correlative properties, such as irreversibility, that synchronisation destroys. Its temporal structure, that is, its rhythm, its tempo, and above all its directionality, is constitutive of its meaning. As with music, any manipulation of this structure, even a simple change in tempo, either acceleration or slowing down, subjects it to destructuration that is irreducible to a simple change in an axis of reference. In short, because it is entirely immersed in the current of time, practice is inseparable from temporality, not only because it is played out in time, but also because it plays strategically with time and especially with tempo.

This quotation indicates that Bourdieu viewed time as an inherent aspect of everyday practice. He developed his work on time with a detailed example (Bourdieu 1990: 98-111) in which he considered the process in which individuals exchange honours or gifts. He explored the practical logic, which underpinned this process, and also the importance of timing, e.g. time intervals and lapse of timing, in the giving and reciprocation of favours. Bourdieu suggested that this was a feature of the specific *habitus* on which he based his empirical research.

My reading of the educational literature revealed that Bourdieu's concepts of field and *habitus* are widely used by researchers. However, I was unable to find any examples of this theoretical approach to works on e-learning or e-mentoring, or on the more generic subject of information systems.

4.4 Selection of a theoretical framework

My starting point for explaining my rationale for selecting Giddens's structuration theory as the theoretical framework for this study was to look at the similarities of the concepts of Giddens and Bourdieu. Morrison (2005: 313) suggests that 'there is an elective affinity, a mutually potentiating similarity, between Giddens and Bourdieu, albeit their terminology differs. Giddens's 'duality of structure' rehearses Bourdieu's conception of structured structures and structuring structures.' Despite the differences in terminology both of these theorists attempt to provide an explanation of the relationships between structure and agency. They don't appear to highlight either structure or agency but attempt to explain them in terms of their inter-dependence on each other. These theories both provide a means of exploring and explaining social reproduction.

In terms of this research, as I worked through the theoretical literature, I found myself more attracted to the ideas of Giddens rather than those of Bourdieu. I found that the visual representation of Giddens provided a framework that I thought would help me to analyse my findings in this research. In addition, the way in which Giddens divided the 'duality of structure' into six elements provided an apparently helpful analytical tool. In contrast, I found the work of Bourdieu less accessible and it was difficult to see how I would progress my work beyond the generic concepts of *habitus*, field and social capital. I appreciate that he used this rather obtuse approach to presenting his ideas as a means of demonstrating their complexity but at a very pragmatic level I didn't find it particularly helpful.

In terms of considering temporal aspects of structure and agency, I found that Giddens provided a detailed consideration of time and space. This is reflected in the amount of space given in this chapter to Giddens's approach to time and space as compared with Bourdieu. In addition, Giddens's work on time resonated with my reading of contemporary temporal research (see Chapter 2) and would potentially provide a framework for my own research. In contrast, I found Bourdieu's work on time was not as extensive as that of Giddens.

However, Bourdieu does recognise that *habitus* is underpinned by particular temporal characteristics.

Commentators on the work of Giddens and Bourdieu, e.g. Stone (2005), point out that Giddens's theory of structuration is a theoretical model that wasn't based on empirical research. In contrast, Bourdieu developed his theory on the basis of his empirical research. However, since Giddens published his theories, other researchers such as Orlikowski have taken his work and applied it real life situations. In this study, I have used the work of Orlikowski to help inform my research practice but as her focus was on technology and my focus is on temporal landscapes and individual timescapes I have not used her work as a theoretical framework. As I explained in my summary of 4.2 I, I decided to use Giddens's duality of structure as the theoretical framework for this study.

One of the differences in the current literature on Giddens's structuration theory and that of Bourdieu relates to the issue of power. Researchers such as Orlikowski (1992 and 2000) who use Giddens's structuration theory pay relatively little attention to the issue of power even though Giddens explicitly considers this topic in his work. In contrast, educational research using Bourdieu's work often highlights issues of power. In terms of this study, this provides a reminder that issues of power should not be over-looked.

4.5 Summary

In this chapter, I present and explore the theoretical frameworks for this study. I provide a detailed description of Giddens's structuration theory and an outline of Bourdieu's theory of *habitus*, field and social capital. Both of these theoretical models attempt to bridge the concepts of structure and agency, and provide an explanation of social reproduction.

I explain my reasons for selecting Giddens's theory of structuration as the theoretical framework for this study. My main reasons for selecting this theoretical approach included: the helpful visual image of 'the duality of

structure;' Giddens's detailed consideration of time and space; and the current research by Orlikowski and her co-workers which helped to inform how I operationalised my research. One important point that I gained from looking at research using Bourdieu's theoretical approach is the importance of power. This concept is included in Giddens's theory of stucturation but was not highlighted in research by authors such as Orlikowski.

So far in this work I have outlined different approaches to thinking about time and contemporary temporal research (Chapter 2), the *EMPATHY Net-Works* project (Chapter 3) and the theoretical framework (this chapter). The next chapter, Chapter 5, provides an introduction to the research methodology.

Chapter 5. Research methodology and methods

5.1 Introduction

The aim of this chapter is to present and discuss the research methodology and methods used in this study. This chapter starts by re-introducing the research aims and questions as these are the starting point for developing the research methodology and selecting the research methods. The remainder of the chapter is organised around five themes: research methodology; data collection; data analysis; access and ethics; and finally research issues. The research issues considered here are credibility, transferability, dependability and confirmability.

5.2 Research aims and questions

My overall purpose in this study is to explore the temporal landscapes of the *EMPATHY Net-Works* project and to illuminate the relationships between this landscape and the temporal experiences of project members. The main focus of the research is the question:

> What are the relationships between the temporal landscapes of the *EMPATHY Net-Works* project and the learning experiences of project members?

This question is explored through the following subset of questions:

1. What are the temporal landscapes of the *EMPATHY Net-Works* project and the Business School?
2. What are the temporal experiences of the project members?
3. What are the relationships between the temporal landscapes of the project and its members?
4. How does the project temporal landscape help or hinder students' learning experiences?

5. How does the project temporal landscape help or hinder e-mentoring experiences?
6. What are the implications of these findings for facilitators and managers of e-learning and e-mentoring projects?

The next section will consider the research methodology used to address these research questions.

5.3 Methodology

The term 'methodology' refers to the "the activity or business of choosing, reflecting upon, evaluating and justifying the methods you use" (Wellington 1996: 16). Research methodology is the process of identifying, selecting and justifying the methods used to collect the data that will provide the evidence base for generating or confirming knowledge. The research methodology involves considering the overall theoretical approach to the study and ensuring that the methodology is in alignment with the research aims and questions, the theoretical framework of the study and the underpinning literature base. If the research is in alignment with the specific field of knowledge in which it is located then any knowledge generated is likely to be accepted by other researchers within this field and so will contribute to the development of the knowledge base.

The selection of the research methodology involves considering three sets of assumptions: ontological, epistemological, and assumptions concerning human nature and agency. These approaches are described by Cohen *et al* (2000) and summarised in Table 5.1. Ontology is concerned with the nature of the social phenomena being studied and it is typified through two positions: nominalist or realist. The former views the world as something that is socially constructed and researching this world involves collecting subjective accounts and experiences. In contrast, the realist position sees the world as given and separate from individuals; it can be researched through 'objective' data and involves using positivist, scientific and experimental methodologies. This dichotomy of nominalist and realist positions is an over-simplification as even traditionally realist approaches, such as some scientific research, is socially constructed (Bryman and Bell 2003). In the context of this study, I am taking a

nominalist approach as much of the contemporary literature on temporal research (see Chapters 2) views time and temporal experiences as being socially constructed. This is evident in the ways in which I present my findings in Chapter 6 where I use a range of quotations from interviews and online discussion group messages so as to present a rich picture of the experiences of different project members. The dichotomy between nominalism and realism is an over-simplification and brings with it the danger that research involves working with either subjective accounts or objective data. In chapter 6, I supplement the subjective accounts with quantitative data collected from other sources e.g. iCohere. When summarised this data provides a valuable insight into general patterns of behaviour in the online environment. In Chapter 7, I abstract my findings, e.g. by summarising the findings presented in Chapter 6 in tables, and this enables me to present an overview of the temporal landscapes of the Business School and project, and also the temporal experiences of project members. This explanation of my ontological approach indicates that ontology is not a clear dichotomy of nominalism and realism, nor is it a clear continuum with nominalism at one end of the spectrum and realism at the other. Instead, I have firmly based my methodological in a nominalist approach and I have augmented this approach by using summaries of quantitative data and also abstracting and summarising my findings from my analysis of individual's subjective experiences on the project. My intention in taking this approach is to build up a rich and multi-faceted picture of the temporal landscapes and individual timescales in the context of the *EMPATHY Net-Works* project.

The second set of assumptions are concerned with epistemology or the nature of knowledge. The positivist view is that knowledge is hard, objective and quantifiable, and research from this perspective involves 'objective' observers collecting and analysing data. The anti-positivist view is that knowledge is softer, subjective and based on individual experience and, as a result, the 'subjective' researcher must be taken into account during the development and implementation of a research project as their involvement in the research project will have an impact on the research process and outcomes (Cohen *et al* 2000: 6-7). My own approach is an anti-positivist one as I see the type of knowledge that I am exploring as being subjective and based on individual experiences. However, I do make use of some quantifiable data, e.g. student use of the iCohere system, as this helps to identify general underlying patterns

at the level of the project. As researcher, my inner temporal landscape and perspectives will have an impact on this study and this is explored later in this chapter and also in Chapter 8.

The third set of assumptions are concerned with human nature and agency, i.e. the perspective that individuals act voluntarily (voluntarism) or the perspective that their behaviour is predetermined (determinism) e.g. by instinct. Researchers who believe in the latter are likely to select scientific approaches to research involving experiments and measuring observations while people who believe in voluntarism are likely to use research methodologies and methods that will enable them to explain and understand their world. In this work, I use a voluntarism perspective as illustrated by my use of the ideas of Giddens on structure and agency to provide the theoretical framework for this study.

Table 5.1 Overview of methodological approaches

Subjectivist approach		**The objectivist approach**
Nominalism	**Ontology**	Realism
Anti-positivism	**Epistemology**	Positivism
Voluntarism	**Human Nature**	Determinism
Adapted from: Burrell and Morgan, 1979 as presented in Cohen *et al* (2000:7).		

To summarise my research approach in this study, I am taking a subjectivist or interpretivist approach for the following reasons. This approach matches my values and beliefs about the nature of things, knowledge and human nature. I believe that this approach will enable me to explore and understand the temporal experiences of project members in a style that will generate new knowledge and understanding that may then be applied to professional practice. This research is located in domains of knowledge, i.e. learning and teaching, and management learning, where there is an established literature and research base that operates from this perspective. The *EMPATHY Net-Works* project was developed using social theories of learning (see Chapter 3) and therefore taking a subjectivist approach is in alignment with this approach.

Using the same methodological approach will hopefully enable the research to be integrated into and help to develop existing knowledge domains.

The *EMPATHY Net-Works* project involves blended learning, including e-learning and e-mentoring, and it was developed on the basis of current research and practice (see Chapter 3). In the research literature on networked learning it is possible to identify distinct methodological approaches. Arbaugh and Benbunan-Fich (2004) outline the abundance of quantitative studies and attribute this to the need to understand the characteristics of networked learning. Other researchers take a qualitative approach and Hodgson and Watland (2004) argue that it is important that the methodology is consistent with the underlying values and beliefs of e-learning if it is to provide useful and helpful insights. For example, Hawisher and Selfe (2007) review methodological approaches to researching e-learning and they identified the rise in qualitative research in this field citing examples of ethnographic case studies of individuals and also classrooms, surveys of computer use in educational contexts, online observations or discursive analyses of virtual communications. Hawisher and Selfe (2007: 77) suggest that: "these qualitative methodologies were better suited....to identifying the multiple and complex ways in which specific computer-supported communications environments shaped, and were shaped by, local and global social relationships." Temporal research, as illustrated by articles in *Time and Society*, indicates that researchers frequently take an interpretivist approach though there are some examples of positivist research in this journal. Consequently this study, which focuses on the experiences of project members in the *EMPATHY Net-Works* project developed using social theories of learning, takes an interpretivist approach.

5.3 Methodological approach

The next step in the research was to identify the methodological approach. Cohen *et al* (2000) identify eight different styles of approach: naturalistic research; ethnographic research; historical research; surveys; case studies; correlation research; *ex-post facto* research; and action research. Four of these approaches (historical research, surveys, correlation research and *ex-post facto* research). were considered and immediately rejected as outlined in

Table 5.2 while the remaining approaches are considered in the following discussion.

Table 5.2 Rejected styles of research

Style of research	Reason for rejection
Historical research	The proposed research is located in the present i.e. current learning and teaching activities within HUBS.
Surveys	Although surveys are very useful for identifying overall trends and patterns, this research explores the subjective experiences of project members and the temporal landscape of the project and its context.
Correlation research	Correlation research is based on a positivist approach and does not fit my research philosophy as I want to build up richer picture of project members' temporal experiences using their words, thoughts, feelings and experiences rather than a statistical and numerical account.
***Ex-post facto* research**	The proposed research is located in the present i.e. current learning and teaching activities within HUBS.

One of the challenges in selecting the overall methodological approach is that while research methods textbooks such as Cohen *et al* (2000) tend to present different approaches as if they are distinct options from a menu, in reality, there is some overlap between them. The following discussion considers the research approaches selected for this study and these illustrate that this study is an ethnographic case study set in an educational context.

This study is a case study as it is located within a particular project and organisation, and it focuses on individuals or groups of actors, and attempts to understand their experiences. Cohen *et al* (2000: 181) write:

> It provides a unique example of real people in real situations, enabling readers to understand ideas more clearly than simply by presenting them with abstract theories or principles. Indeed a case study can enable readers to understand how ideas and abstract principles can fit together. Case studies can penetrate situations in ways that are not always susceptible to numerical analysis is.

In this study, a case study approach is used to explore the temporal landscapes and experiences in the *EMPATHY Net-Works* project. Using this

approach will, as Verma and Mallick (1999) suggest, enable me to go beyond the description of a particular individual, event or situation. They suggest that case studies are concerned with the interactions and inter-relationships between different events resulting in particular outcomes. Case studies may be used to explore a particular situation, e.g. the *EMPATHY Net-Works* project, by exploring the impact and interplay of all the different actors as well as the micro and macro environment. I believe that this is likely to yield a richer yield than exploring the same situation through one or two quantitative measures. Common methods used to collect data in case study research includes questionnaires, interviews, focus groups, personal journals, documentation and other textual evidence.

Case studies, as with any approach, offer a range of advantages and disadvantages to the research and these are clearly summarised in Cohen *et al* (2000). Case study data is often 'strong in reality' and provides the reader with down-to-earth accounts often supported by vivid descriptions of particular situations and illustrated with quotations. These may resonate with the reader's own experiences. Case studies provide an opportunity to explore in depth the complexities and subtleties of a particular case. Cohen *et al* (2000) refer *to* Adelman *et al* (1980) who suggest that one advantage of case studies is that they recognise the social and political context of the specific situation and this enables conflicts or discrepancies between the viewpoints of different informants to be identified and explored. Another advantage of case study research is that it produces a set of documents (reports, transcripts, completed questionnaires, videos) that may be used in future studies, e.g. to revisit the case study from a different perspective. Case studies are clearly located in the real world and the research findings may be used to change practice either in the specific case used in the research or in a related situation. One final advantage of case studies is that in comparison with some research approaches, e.g. some quantitative studies, the findings from case studies are accessible and may be used by a wide range of people (Cohen *et al* 2000).

There are weaknesses in the case study approach and these are outlined by Cohen *et al* (2000). The first potential weakness is a lack of generalizability as the findings may not generalise to other educational situations. Bassey (1999)

describes three types of generalisation: scientific, statistical and fuzzy. In the context of this case study, research is likely to result in the third type of generalisation, i.e. one based on fuzzy logic. This involves the production of a tentative prediction, couched in the terms 'this may happen,' and without a supporting measure of probability. This may be couched in the terms "If you do X instead of Y then project members **may** be more motivated to engage with e-mentoring". This means that the results from case studies may be used by educational practitioners and the use of the word 'may' is a helpful reminder that every learning and teaching situation is different so that they need to apply the fuzzy generalisation with an awareness of their own complex situation. It is anticipated that this research will produce fuzzy generalisations that may be relevant to other practitioners. This issue is explored later in this chapter in the sub-section on generalisability.

Stenhouse (1985) identifies a number of different approaches or styles of case studies, i.e. action research, evaluative, educational and ethnographic. I considered action research as a methodology and explored different conceptions of this approach. A relatively simple working definition of action research is that it is practice-based research, which involves an intervention into an educational situation, and this is followed by an exploration into the effects of the intervention (Cohen *et al* 2000). In the context of this research, the focus is on exploring and understanding the temporal experiences of students/mentees, e-mentors and project workers rather than intervening in the current practice and researching the outcomes of the intervention. As a result this study is not an example of action research. However, the proposed study does show some relationship to action research as it is concerned with critical enquiry into current practice, I will be accountable and I will make the results of the research public within the Business School and also relevant research communities. As I was involved in the design and implementation of the EMPATHY Net-Works project then I am participating in the study and hope to involve colleagues in a participatory manner (Zuber-Skerritt 1996).

Evaluative case studies involve the study of a particular or group of cases in order to evaluate a particular intervention, programme or policy so that decision makers, e.g. funding agencies or educational managers, may obtain

information to enable them to decide on further action. In some respects this study takes an evaluative approach as it is hoped that it will provide recommendations for improvements to current practice.

Stenhouse's (1985) third style of case study is an educational one. The focus of this study, the *EMPATHY Net-Works* project, is an educational project located within a university and so it provides an example of an educational case study. In addition, the intention in this research is to develop the knowledge base of educational thinking and theory, as well as management education.

As I progressed through this study I realised that ethnography was a potentially important research approach. Giddens did not write about ethnographic research in any depth and he did not carryout empirical research to support his theories. In contrast, Orlikowski (2000) and Louereiro-Koechlin (2006) carried out ethnographic research using structuration theory. Bourdieu used ethnography in his empirical research (see Chapter 4) and it is a widely used approach to researching social life in virtual environments (e.g. Hine 2005; Miller and Slater 2000). Ethnography is concerned with the 'real' world of everyday life. It is concerned with the ways in which individuals make sense of their world and 'the assumptions they make, the conventions they utilize, and the practices they adopt' (Cohen *et al* 2000: 24). LeCompte and Preissle state that:

> Ethnographic research is a process involving methods of inquiry, an outcome and a record of the inquiry. The intention of the research is to create as vivid a reconstruction as possible of the groups or cultures being studied.
>
> (quoted in Cohen *et al*, 2000: 38)

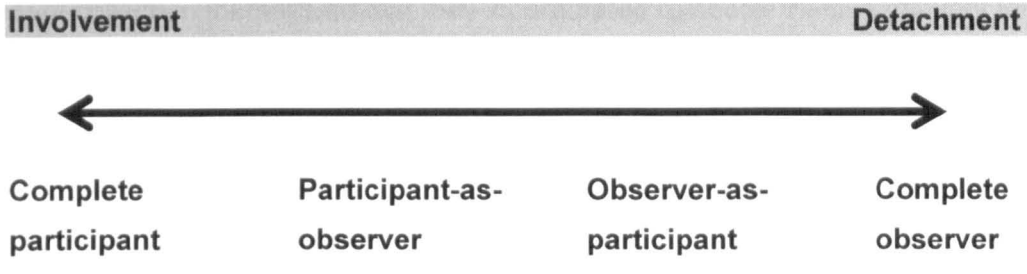
Ethnography was first developed by social anthropologists who typically immersed themselves in the day-to-day life of a particular group or culture. It is a commonly used approach in both educational research (Cohen *et al* 2000) and business and management (Bryman and Bell 2003). Ethnography involves the researcher in observing the social group that forms the focus of their research. The literature on this approach discusses the issue of participant observation. Bryman and Bell (2003) refer to the work of Gold

(1958) who identified four potential roles for ethnographic researchers as follows:

- Complete participant where the researcher is a member of the social group but they are unaware that the research process is taking place
- Participant-as-observer where the researcher is a member of the social group and where the members of the social group are aware that the research is taking place
- Observer-as-participant where the researcher's role is chiefly that of interviewer but there is some interaction between the researcher and members of the social group
- Complete observer where the researcher does not interact with members of the social group.

These roles involve different levels of involvement and detachment between the researcher and members of the social group, and this is represented in Figure 5.1.

Figure 5.1. Participant observer roles
Adapted from Bryman and Bell (2003: 324).



Creswell (2007) explores different approaches to ethnography and provides a detailed account of realist ethnography in which the researcher is a complete and 'objective' observer. Conversely, if the researcher is a complete participant then this could be described as nominalist ethnography. In the context of this research my role was that of participant-as-observer and I am taking a nominalist approach to this study as explored in 5.3. Project members

were all aware that the *EMPATHY Net-Works* project included a research element and, as explained below, access and ethical issues were taken into consideration during the design of the project and also this research. Issues arising from my multiple roles in the project and research, i.e. project leader, tutor, e-mentor and researcher, are discussed later in this chapter.

To conclude this section, my overall research philosophy is a subjectivist or interpretivist approach. My research methodology is an ethnographic case study in which my role is that of participant-as-observer. The next section presents my data collection methods.

5.4 Data collection

This study used a multi-method approach involving both quantitative and qualitative methods (De Laat and Lally 2003; Jones 2004). The data collection process for this study was built into the project management plan for *EMPATHY Net-Works*. As an ESF part-funded project and also as a project located with a UK university, we had to comply with the quality assurance processes of both the university and also the ESF. Rather than add another layer of data collection activities on top of these existing methods, which would have added to the time commitments of project members, we adapted the data collection methods so that they incorporated temporal themes relevant to this study.

A large number of data sources were available to this study as part of the *EMPATHY Net-Works* process and these included:

1. Project documentation e.g. project plans, steering group meeting minutes, project team meeting minutes
2. Online discussion group messages
3. Online module and mentoring evaluation questionnaires.

Examples of data sources are presented in Appendices A, C and D. A colleague offered me his completed wall planner for 2007 and this is presented in Chapter 6 as it provides another means of visually representing the temporal landscape of the Business School.

In addition, in-depth interviews were held with 12 people: two colleagues in the Business School, four project team members, two tutors, two mentors and two students/mentees. With the interviewees' permission, the interviews (telephone or face-to-face) were recorded and a transcript was then produced using an external transcribing service. Issues involved in the interviewing process are discussed later in this section.

As stated in the previous section, I was involved in the *EMPATHY Net-Works* project as participant-as-observer in my roles as project leader, tutor, e-mentor, mentor co-ordinator and also researcher. I collected my observations using a research diary which I maintained throughout the project. This data collection process is discussed later in this chapter.

The previous explanation does not fully illustrate the number of people who were involved in generating or providing data for this research. Table 5.3 shows the number of people who contributed to the data used in this study and this indicates that all the people involved in the project plus colleagues from the Business School.

The next table (Table 5.4) illustrates the relationship between the research questions and the data collection methods. I developed this table as a means of ensuring that I collected data that would enable me to explore each of the research questions

As mentioned in the previous section, there were five main types of data sources:

1. Business School and University academic calendars
2. Example wall planner
3. Project documentation e.g. project plans, steering group meeting minutes, project team meeting minutes
4. Online discussion group messages
5. Online module and mentoring evaluation questionnaires

Table 5.3. Sources of data

Data source	People who generated or provided this data
University and HUBS calendars	Colleagues in HUBS and the University
2007 completed wall planner	Colleague who works in HUBS
Project documentation e.g. project plans, project team meeting minutes	Project team (5 members)
Online discussion group messages	60 students and 40 mentors 3 tutors
Online module and mentoring evaluation questionnaires.	60 students and 40 mentors
Interviews	Business School – 2 colleagues Project team - 4 members 2 tutors 2 mentors 2 students/mentees
Research diary	Barbara Allan in roles of project leader, tutor, e-mentor, mentor co-ordinator and also researcher

A full list of the project documentation e.g. steering group meetings and project team meetings, titles of online discussion message threads, and copies of the module and mentoring evaluation questionnaires are presented in Appendices A, C and D. Each of these sources was generated as part of the *EMPATHY Net-Works* project process. This meant that they were developed by the project team which included me. The primary function of these sources was to enable project members to achieve the *EMPATHY Net-Works* project goals rather than those of this research project.

This process has the advantage that these data sources should provide a rich picture of temporal aspects of the project and their content should not be affected or distorted by this research. However, because of my multiple roles in the project, I will have influenced the project documentation and some aspects of the discussion group messages both as a result of my own temporal landscape, my perceptions of the temporal challenges of the project and also this research. This issue is explored later in this chapter.

Table 5.4. Relationship between the research questions and the data collection methods:

Research questions	Data collection methods
1. What are the temporal landscapes of the *EMPATHY Net-Works* project and the Business School?	a. Business School documentation and wall planner b. *EMPATHY Net-Works* project documents c. Interviews d. Research diary
2. What are the temporal experiences of the project members?	e. Online discussion group messages f. Module and mentoring evaluation questionnaires g. Interviews
3. What are the relationships between the temporal landscapes of the project and its members?	h. Business School documentation i. *EMPATHY Net-Works* project documents j. Online discussion group messages k. Module and mentoring evaluation questionnaires l. Interviews
4. How does the project temporal landscape help or hinder student learning experiences?	m. Business School documentation n. *EMPATHY Net-Works* project documents o. Online discussion group messages p. Module and mentoring evaluation questionnaires q. Interviews r. Research diary
5. How does the project temporal landscape help or hinder the e-mentoring process?	s. Business School documentation t. *EMPATHY Net-Works* project documents u. Online discussion group messages v. Module and mentoring evaluation questionnaires w. Interviews x. Research diary
6. What are the implications of these findings for facilitators and managers of e-learning and e-mentoring projects?	y. Analysis of findings (see Chapter 7 and 9)

The interview process was carried out using the guidelines given by Cohen *et al* (2000). At the design stage of this study, I was concerned with two aspects of the interviews. My first concern was about the content of the interviews and the way in which it would be possible to engage with individual's temporal experiences. After reflecting on the process, I decided to structure the interviews according to basic temporal concepts identified in the literature and included in Table 2.4 which provided an extended framework of temporal research based on the work of Ancona, Okhuysen and Perlow (2001). In particular, I focused on the sub-categories: organisationally constructed time and actors relating to time and this led me to identify a series of themes which became prompts in the interviews:

1) Individual experiences of time within the project
2) Drivers that helped to shape the project
3) Different experiences of time during the project
4) Individual experiences of time within HUBS
5) Impact of HUBS on the project – from a time perspective
6) Temporal experiences on this project as compared with previous projects
7) Individual approaches to time
    a. Sense of time e.g. with respect to meetings
    b. Temporal horizon
    c. Temporal depth - focus on the past, present and/or future
    d. Managing the boundary between work and home life

My second concern was whether or not individuals would be willing to talk about their temporal experiences. In order to explore both of these concerns, I decided to carryout a number of pilot interviews. I decided to structure the interviews according to temporal concepts identified above and to focus on their general temporal experiences within the Business School or University of Hull. My first interview was with a colleague (Colleague X) who is familiar with my research but was not involved in the *EMPATHY Net-Works* project or HUBS, and she was willing to act as a critical friend to this part of the study.

My analysis of the transcript of this interview provided some insights into Colleague X's temporal experiences. Consequently, the outcomes of this interview gave me the confidence to use the same approach with two colleagues in the Business School. In addition, I asked Colleague X to interview me. This process enabled me to establish the viability of my interview strategy and it also enabled me to analyse the findings using the relevant concepts from the literature. Working with Colleague X provided an 'objective eye' in the sense that she was not engaged in this study and so acted as a critical friend during this pilot phase. We wrote up this experience as a conference paper (Allan and Lewis 2007).

This pilot study demonstrated that my planned interview process would generate useful data and also that people were very willing to talk about their temporal experiences. As two of the participants (excluding me) were members of the Business School this process also provided me with additional data on the temporal experiences and landscapes within HUBS. These findings are presented in Chapter 6.

Following on from the pilot study, I interviewed project team members (4 colleagues), two tutors, two mentors and two students/mentees. My process for recruiting the mentors and students/mentees for interview involved posting a message in iCohere asking for individuals who were willing to be interviewed for this study. I only received two volunteers from each group (mentors and students/mentees) and so interviewed these individuals. One additional mentor volunteered to be interviewed six weeks after I posted my message and she was thanked for her offer but I explained to her that I had already completed the interviews. Each of these interviews followed the process outlined above.

As stated earlier in this chapter, one of the ways in which I collected data from the project was as participant-as-observer. Cohen *et al* (2000: 188) quotes the work of Bailey who identifies some of the advantages of the participant-as-observer approach in case study research. The first point he makes is that if the researcher is collecting data on non-verbal behaviour then observational studies are superior to the use of experiments or surveys. Participants are in

their natural setting and the observer is able to record ongoing behaviours as it happens. This point is relevant to this study as I was able to record comments and events that happened during the life of the project. The participant-as-observer has the opportunity to build up a relationship with participants although this may result in some bias being introduced into the data collection. This was a potential issue in this research as project members may have changed their behaviour or provided me with information that they thought I wanted to hear during the life of the project. The ways in which I attempted to counter this are discussed later in this chapter. Finally Cohen *et al* (2000) suggest that case study observations "are less reactive than other types of data-gathering methods" which may include bias into the data, e.g. through the use of structured questionnaires. This point is relevant to this study as my role of participant-as-observer enabled me to collect data that arose 'naturally' during the course of the project rather than data that was the result of project members' responses to questionnaires or interviews. In my role as participant-as-observer, I used a research diary to record observations and thoughts about the *EMPATHY Net-Works* project. This enabled me to collect data which otherwise may have been lost during the project process.

5.5 Data analysis

I will start this section by describing and discussing my approach to data analysis and here I explore my use of a coding scheme and the re-purposing of the classification scheme of Ancona, Okhuysen and Perlow (2001). I then consider how I analysed my data and this involved three distinct processes: analysis of the temporal landscapes of HUBS and the project; analysis of the experience of project members; and identification and analysis of temporal metaphors.

5.5.1 Approach to data analysis

Before I began the data analysis of the narrative obtained from discussion group messages, module and mentoring evaluation forms, and also the interviews, I thought about how I would analyse my data and I considered two

approaches to content analysis, *de novo* analysis; and the use of a coding scheme. I rejected a *de novo* analysis on the basis that this process could potentially be biased by my inner temporal landscapes and perspectives. A coding system appeared to offer a more structured and objective approach to analyzing the data. In addition, it offered the opportunity to link the data with theoretical ideas about time, temporal landscapes and experiences. As I wanted to connect my findings with contemporary temporal research, I decided to use a coding scheme based on the revised framework that was first presented in Table 2.4.

As explained in Chapter 2, this framework was based on a review of temporal research by Ancona, Okhuysen and Perlow (2001). They identified a range of variables used in their sample of research papers and grouped them into three categories with an additional category-spanning set of variables. In chapter 2, I explain why I have developed this framework to include additional variables found in more recent temporal research. This framework is re-presented in this chapter as Table 5.5. In this study, I decided to re-purpose the framework and to use it as a starting point for analysing my data. I used this approach for a number of reasons. First, I was unaware of any other classification schemes or frameworks of temporal variables of the features of temporal landscapes and individual timescapes. Second, I came to the conclusion that this amended framework appeared to cover all the temporal themes covered in the contemporary literature and this would help me to analyse my data and also to provide a comprehensive view of temporal factors captured in the data. The next paragraph outlines one of the difficulties I experienced with using the framework. In chapters 7 and 8, I return to the issue of using this coding scheme as compared with a *de novo* data analysis.

I initially intended to use the list of variables presented in the third column of Table 6.5 to analyse the data. In practice, I found it was extremely difficult to work with this level of detail and obtained no hits while working through the data using NVivo. On reflection, I realised that this difficulty arose as the literature on temporal research and the variables used in this research is written in academic language and, in some parts, technical temporal language and this does not relate to the everyday language used by project members.

Consequently, I developed a three stage approach to coding the data. First, I searched through all the data using NVivo using the search term 'time' and highlighted and printed out all the hits. This produced more than 500 pages of text. Then, I carried out a first sweep of the data by reading the highlighted items and coding them under the general themes i.e.

- Conceptions of time
- Mapping activities to time
- Actors relating to time
- Category-spanning variables.

Where a hit could be coded under two or more of these headings then I photocopied them and placed them in each of the relevant categories. Finally, I worked through each of the themes and used the following sub-categories (the middle column in Table 6.5) as a means of organising my hits:

- Types of time
- Socially constructed time
- Organisationally constructed time
- Single activity mapping
- Repeated activity mapping
- Single activity
- Transformational mapping
- Multiple activity mapping
- Comparison and meshing of activity maps
- Temporal perception
- Temporal personality

I included the category spanning variables in the sub-category or sub-categories that appeared to be most relevant to that particular case. Within each of these categories, I organised my findings using these identified in the list of example variables presented in Table 6.5. I found that this aspect of the research was extremely time consuming and working from printouts enabled me to use travel time, e.g. on train journeys, to reflect on and work with the data.

5.5.2 Analysis of the temporal landscapes

The analysis of the temporal landscapes of HUBS and the project was based on documentation such as the HUBS academic calendar and the project action plan plus project meeting minutes. These documents enabled me to identify temporal features such as the start and end of a semester, end of a project, start and end of the taught module and e-mentoring for a particular cohort. These findings helped me to identify the temporal landscape of HUBS and the project and also compare these landscapes. A colleague offered me his wall planner and this is presented in Chapter 6 as it provides another means of visually representing the temporal landscape of he Business School and it provides additional evidence to support my analysis of the documents. I augmented these findings with data obtained from the interviews. As explained in 5.4, my interviews included an exploration of organizational constructs about time and this helped me to identify different patterns of activity within the project. The temporal landscapes were analysed in terms of a calendar and project timeline as these provided a convenient and accessible visual images. I also explored different examples of mapping activities against time by looking for examples of the following in the project documentation e.g. module schedules and project schedules, and also by talking to colleagues about them: single activity mapping; repeated activity mapping; single activity transformational mapping; multiple activity mapping; comparison and meshing of activity maps.

Table 5.5. Revised classification of temporal research

Based on the work of Ancona, Okhuysen and Perlow (2001).

Category	Subcategory	Example variables
Conceptions of time	Types of time	Linear time, uniform time, cyclical time, subjective time and event time. **Fast and slow time** **Clock, event, timeless and harmonic times** **Dreamtime**
	Socially constructed Time	Work organisation (nine to five, workdays, work time and family time) Celebrations (Passover and Easter) Time as a renewing cycle Time as linear continuity
	Organisationally Constructed time	**Horizon – duration** **Frames – interval, pace, parallel, sequence, simultaneity, synchronicity, tempo, timing** **Spans - past/present/future, beginning/ending, continuity/permanence, flux/change, passage/direction, pausing/interrupting, repeating**
Mapping activities to time	Single activity mapping	Scheduling, rate of completion, duration
	Repeated activity mapping	Cycle, rhythm, frequency, interval
	Single activity transformational mapping	Life cycles, midpoint transitions, jolts, interruptions, deadline behaviours
	Multiple activity mapping	Relocation of activities, allocation of time, ordering, synchronisation
	Comparison and meshing of activity maps	Entrainment, patterning, temporal symmetry
Actors relating to time	Temporal perception	Experience of time, time passing, time dragging, experience of duration, experience of novelty
	Temporal personality	Temporal orientation, temporal style
Category-spanning variables		Polychronic and monochromic time
		Banana time

5.5.3 Analysis of the temporal experiences of project members

The temporal experiences of the project members were analysed using data collected in two ways: as part of the *EMPATHY Net-Works* project process, e.g. discussion group messages, module and mentoring evaluation forms; and also in the interviews. This data collected was uploaded into NVivo, a computer-assisted data analysis software package. Example screen shots from NVivo are contained in Appendix D. NVivo was used as it was readily accessible within the university and it is a standard tool for narrative analysis. Guidance in the use of NVivo was obtained from colleagues and also Bryman and Bell (2003).

My initial analysis of this data involved skimming through the data and exploring both the layout of the data and how to manipulate it using Nvivo. This process enabled me to become familiar with the data. This text then provided the raw data for the content analysis.

I then searched all the documents for the word 'time' and highlighted this term, selected the relevant sections and then printed them out. I then followed the three stage process outlined in section 5.5.1 and this meant that I ended up with three main groups of entries under the headings: Conceptions of time; Actors relating to time; and Other. Within the first two headings, I organised the data using the sub-categories identified in Table 5.5 and I found that my findings could be grouped under the following categories:

- Conceptions of time
    - Types of time
    - Socially constructed time
    - Organisationally constructed time
- Actors relating to time
    - Temporal perception
    - Temporal personality

I also identified issues that were not covered in the temporal framework scheme i.e. structure and timetable of the module and also mentoring process; presence and absence of students and mentors; and also barriers to learning and mentoring. In addition to the simple search using the word 'time', I also worked through all of the data on the screen in order to identify any additional references to either temporal landscapes or individual timescapes and experiences. These findings were then highlighted and printed off. I then analysed them as described above. These findings are presented in Chapter 6 and discussed in Chapters 7 and 8.

5.5.4 Metaphor analysis

The final approach to content analysis involved identifying and utilizing metaphors relating to time. My previous research experience includes using metaphors to analyse the temporal experiences of e-learners (Allan 2007a). In this earlier study, I discovered that our language is rich in metaphors about time as illustrated by expressions such as 'fast time,' 'slow time', 'spending time' and 'saving time.' Lakoff and Johnson (1980) suggest that metaphors may be used as the basis for exploring individual subjective experiences and understanding underlying conceptual systems.

I found that Case and Gunstone (2001) used metaphors to analyse how students talk about time. They distinguished between students who experience 'high control' and 'low control.' They found that students who experienced 'high control' used expressions such as "spending time", "saving time", "wasting time." In contrast, students who experienced 'low control' used metaphors such as "time not always on your side" and "time caught up with me". Their work is significant to this study in two respects: it offers a methodology based on the use of metaphor; and it offers a potential framework for analysing data.

In an earlier study, Allan (2007a), I found that my analysis of metaphors in online discussion group messages produced limited but interesting findings as they give an important insight into the e-learners' temporal experiences. I

found that less than 3% of the online discussion group messages analysed contained 'time' metaphors but these metaphors did provide an indication of individuals' subjective temporal experiences. Some of the metaphors identified in these online discussion group messages are classified and presented in Table 5.6.

In the current study, I decided to carryout a metaphor analysis of all the narrative text uploaded into NVivo as I thought it would provide another useful approach for exploring the temporal experiences of project members. Although there was the danger that I would spend a lot of time on this analysis and it might provide relatively few metaphors, I did think that it might produce some gems, i.e. useful and complementary insights into the temporal landscapes and perspectives of the project members.

Table 5.6. Classification of metaphors used by e-learners

Originally presented in Allan (2007a).

Approach to time	Illustrative metaphors
Time as a scarce commodity	"I'm really short of time." "I too am having difficulty finding enough time to do anything other than 'read the messages and run'."
Challenges in managing time	"I find the same problems as some of you, in scheduling a regular time slot to do justice to the activity." "It's a problem planning a time when you can access the environment and getting into a routine and sticking to it."
Conflict between natural study patterns and external factors	"In particular, whilst I like to work at my own pace I'm finding it difficult to schedule time for this - a situation exacerbated because I don't have a PC and Web access at home and I guess I've always been a night owl student."
Lack of control	"Initially I felt as if I need to be online all the time and felt overwhelmed. The course 'took over' my life."

My metaphor analysis involved searching all the NVivo files for narrative that contained the word 'time.' I then printed these out and examined each of the examples for temporal metaphors. The metaphors I found are presented in Chapter 6 and typical examples include: "Time has flown by"; "Time is marching on". I then worked through the NVivo data again and looked for any additional metaphors that did not include the word 'time' and this approach produced a number of additional metaphors such as: "No gaps"; "I'm always racing from one thing to another"; "Running at our own rhythm"; "I get the impression that it flowed, it flowed"; "I am now up to speed". All the examples I found were highlighted and I then attempted to group the metaphors using the categories presented in Table 5.6. I found that I needed to include an additional category of 'time and motion' and these findings are presented and explored in Chapters 6 and 7.

In summary, the three approaches to data analysis i.e. the production of a visual representation, content analysis and metaphor analysis were used to address the research questions. Table 5.7 illustrates the relationship between the research questions, the data collection methods and the data analysis process.

5.5.5 Interpretation of findings

The next stage in the research process involved what Radnor (2001) calls 'analysis to interpretation' and it is concerned with interpreting the findings and developing meaning from them. In Chapter 7 I present the findings following my analysis of the data as described in sections 6.5.1 to 6.5.4. I then took these 'raw' findings and attempted to link them to my research questions, my theoretical framework (Giddens's structuration theory) and the contemporary temporal literature. This was an extremely messy process. At this stage, I worked with flipchart paper and Post-it Notes™ and kept organizing and reorganizing my data, and attempted to link it with the research questions and also Giddens's structuration theory. At times, I discussed this process and my findings with colleagues including members of the *EMPATHY Net-Works* team. I kept returning to my original research questions and, after much work, began to see how my findings fitted with and also differed from existing temporal

Table 5.7. Relationship between the research questions, data collection methods and data analysis.

Research questions	Data collection methods	Data analysis
1. What are the temporal landscapes of the *EMPATHY Net-Works* project and the Business School?	Business School documentation *EMPATHY Net-Works* project documents Interviews Research diary	Develop calendar Develop project timeline Develop an account of the temporal landscape based on the concepts included in the framework
2. What are the temporal experiences of the project members?	Online discussion group messages Module & mentoring evaluation questionnaires Interviews	Develop an account of the temporal landscape based on the concepts included in the framework Identify metaphors used to describe individual temporal experiences.
3. What are the relationships between the temporal landscapes of the project and its members?	See data collection methods in 1 and 2 above	Analyse and map the results from a – f above to identify relationships
4. How does the project temporal landscape help or hinder student learning experiences?	Business School documentation *EMPATHY Net-Works* project documents Online discussion group messages Module and mentoring evaluation questionnaires Interviews Research diary	Analyse the data for examples that indicate that the project's temporal landscape was helping or hindering student learning experiences. Explore the metaphors used by students to indicate their underlying subjective experiences with respect to their learning processes.

(continued)

Table 5.7. Relationship between the research questions, data collection methods and data analysis (continued).

Research questions	Data collection methods	Data analysis
5. How does the project temporal landscape help or hinder the e-mentoring process?	Business School documentation *EMPATHY Net-Works* project documents Online discussion group messages Module and mentoring evaluation questionnaires Interviews Research diary	Analyse the data for examples that indicate that the project's temporal landscape was helping or hindering the e-mentoring process. Explore the metaphors used by mentees and mentors to indicate their underlying subjective experiences with respect to their mentoring experiences.
6. What are the implications of these findings for facilitators and managers of e-learning and e-mentoring projects?	Analysis of findings (see Chapter 7).	Use the findings from the data analyses identified in this column.

research. I also began to see how using Giddens's structuration theory helped to provide an explanation for some of my findings. I then produced a draft document and discussed this with colleagues and I asked project members for validation. For example, individual interviewees were asked to read relevant sections of my findings and interpretations and asked if they thought that their views and experiences were accurately represented in 'my' text. Where necessary, I amended and edited the work so that it concurred with their perspectives.

5.6 Access and ethical issues

This research project was given ethical clearance by the University of Sheffield School of Education Ethics Committee. In addition, this study was

supported by the University of Hull Business School which means that the project was reviewed by the Business School's *EMPATHY Net-Works* Steering Group, the Centre for Management and Organisational Learning, and the HUBS Ethics Committee in order to ensure that the project complied with the University of Hull Business School's ethical guidelines.

An important ethical issue relates to the issue of 'power' in the research process. In this research process this was an important issue because, as project director, I held a 'powerful' role within the *EMPATHY Net-Works* project. Goodson and Sikes (2001) explore the "ethical responsibility of the researcher to their informants" and suggest that even when researchers are aware of these issues and are working from values based on the notion of equality between researcher and informant then research methods can still be problematic. In the context of this research I managed the power issues in a number of ways.

First, other project team members led the project evaluation process and these were all carried out via anonymous questionnaires in the iCohere system. Second, I made sure that I treble checked with interviewees about their availability and willingness to be interviewed. I gave them opportunities to cancel the interviews without 'loss of face,' e.g. by contacting my administrator. My experience was that everyone was very willing to be interviewed and they were keen to share their experiences. Third, I gave individuals the opportunity to feedback and edit my work and gave them opportunities via e-mail and also face-to-face to change their mind or withdraw their words. Again, everyone was very willing for me to use their perceptions in this study. Fourth, I decided not to use day-to-day e-mails as a potential data source for this research. When I was planning the research process I realised that they would potentially offer a valuable information source and that I could ask for informed consent from project members to utilise project e-mails. However, when I reflected on this method I realised that it could limit e-mail communications between team members and that through their familiarity with e-mails they could forget that they were going to be used as part of a research project. Consequently, I decided to limit my data sources to project documents and communication processes within iCohere (except for the private mentoring

communications) and also to interviews. This meant that there was a clear boundary between this research process and team members' everyday life on the project. Fifth, I discussed these issues with team members and this provided them with opportunities to express any concerns.

Finally, I don't think there is an easy solution to this issue of power in the research process, particularly in this situation where I was project director and also researcher. On a day-to-day basis, I found that it was important to be clear about the role I was taking at any time and that I articulated this to project members. When I asked colleagues to engage in the research then I was careful to frame it in such a way as to enable them to opt out of my research activities. I observed their body language as well as their verbal language in order to identify anyone who appeared uncomfortable or uneasy about this research. In addition, I reflected on these issues with critical friends within the University of Hull, e.g. Colleague X and Colleague Y.

There is a danger that gaining consent is treated as a simple procedure and Goodson and Sikes (2003) quote the work of Fine (1994) who states that the process of gaining informed consent from someone has the potential effect of absolving the researcher from moral responsibility and so gives control to the researcher. Miller and Bell (2002) argue that ethical issues arise in relationship to gaining access to potential informants and gaining informed consent. They argue that consent needs to be constantly re-negotiated throughout the process as participants develop their understanding of the process, what it entails and its potential implications. Their approach was followed in this research as I ensured that informants were fully informed and given the opportunity to re-negotiate and, if they wished, withdraw from the research at any stage.

In the write up of this research, I follow the practice of referring to project members using their roles, e.g. Student A, Mentor A, Tutor B, so that the informants may not be identified.

5.7 Research issues

Silverman (2001) considers the issue of credibility in qualitative research and highlights the need to consider issues of validity, reliability and generalizability. This approach to evaluating research is traditionally linked to positivist research and I prefer to use the approach described by Bryman and Bell (2003) which involves the concepts of credibility, transferability, dependability and confirmability. The relationships between these different evaluative criteria are outlined below:

- Credibility provides a parallel to internal validity
- Transferability provides a parallel to external validity
- Dependability provides a parallel to reliability
- Confirmability provides a parallel to objectivity.

Each of these evaluative criteria is considered below with respect to this research.

Credibility is concerned with the researcher producing a credible account of the subject of their research based on good research practice and also submitting the research findings to members of the social group for validation. This research was based on good practice, e.g. the original research proposal was accepted by colleagues in the School of Education, University of Sheffield. In addition, the project was scrutinised by members of the ethics committees at both the University of Sheffield and also the University of Hull Business School. Team members of the *EMPATHY Net-Works* project included two experienced researchers who would have challenged any research practice that they thought did not meet normal standards of good practice.

The production of a credible account of the research involves producing an accurate account and one that is not made up, selective or distorted. In this study many of the source data came from the. *EMPATHY Net-Works* project as part of the standard project process rather than for this research alone. This means that this data is not made up or distorted by this research process. All of the data collected in the project, e.g. discussion group messages and interview transcripts were dealt with in the same way using the functions of the

NVivo software. This meant that all the data was processed in the same way and the examples that are used to illustrate the findings (see Chapter 6) were selected as a result of their match with either the classification schema used in the content analysis or the metaphor analysis of the narrative. This process helped to ensure the descriptive validity of the account of the temporal landscapes and experiences within the project.

Another aspect of producing a credible account relates to whether or not the study fairly represents the perspectives of different members of the project and Business School. The use of a wide range of data collection methods helped to ensure that I captured a wide range of views and perspectives. My initial research plan focused on the experiences of student/mentees and mentors, however as the research process progressed I realised that I needed to shift my focus to include project team members and also colleagues in the Business School. This helped to ensure that the study fairly represented the views of a wide range of people. Clearly if I had interviewed more people, e.g. more student/mentees, mentors and colleagues, then this would have helped to improve representation but I needed to balance the need for fair representation with my time constraints for this study.

One particular problem in the research methodology is that of the interviews and Cohen (2002) quotes Cannell and Kahn (1968) who identified that validity is a persistent problem with interviews and that validity can be increased by decreasing bias. They identify a number of sources of bias including interviewer, respondent and content of the questions. The possible bias in this research project is a real challenge as I already knew and had built up a relationship with all the respondents. In addition, I was wearing a multitude of hats, i.e. project leader, tutor, e-mentor and researcher while the project members and colleagues who took part in interviews had at least two roles: project member and respondent, or colleague and respondent. While some people, e.g. Silverman (1993), suggest using highly structured interviews as a means of overcoming bias, my interviews were extremely open and focused around a number of key words or themes as identified in the classification scheme presented earlier in this chapter. In the design of this study, I reflected at length about the interviews. I decided that if I used a highly structured

interview schedule then this may produce a bias as a result of my own temporal perspectives and it may also limit the findings of the study by leaving little space for the perspectives of interviewees that didn't fit into my schedule. I decided that using the classification scheme would help to: provide a structure for the interviews; link the findings to the literature; and also help to provide a balance to my temporal perspectives.

In this study, interviews were used as a means of producing an in-depth understanding of the landscapes of the Business School and project temporal landscapes, as well as understanding individual temporal experiences. I attempted to reduce bias in the interviews by carrying them out after the taught module and mentoring process had been completed. This meant that I was no longer in formal tutor or e-mentor role although I was still in the roles of project leader and researcher. I attempted to use the following methods for overcoming bias: disassociate the research project from my other roles; use the same prompt words in the same order for each interview; respond to each statement in a neutral way; prompt by asking for further information or explanation using neutral language. After writing up my first draft of this work, I double checked my work with each of the respondents and ensured that they were confident that their voice and experiences had been accurately captured.

It is important that the research captures the meanings and interpretations of project members and worked towards achieving this by reporting findings using the voices of project members and colleagues in the Business School, e.g. quotes from questionnaires, postings, interviews and my research diary. The use of metaphors has enabled me to identify underpinning temporal concepts and this technique is firmly ground in the participants' language. In this way I have attempted to present their genuine voices and experiences rather than my own interpretation of them. I validated my findings in this study by asking all participants to read and provide feedback on my draft document. It is hoped that this will enable incorrect or partially correct or distorted usage of the words and ideas of project members to be corrected. In addition, I asked two colleagues to validate my findings: Colleague X helped to validate the pilot interview process and data analysis; and Colleague Y helped to validate the data collection and analysis processes from the *EMPATHY Net-*

Works project. As a result, this process enabled my research to explicitly tackle issues of validity.

One of the sources of data for this research project is my research diary and this has the potential for introducing invalidity into the research process. My own approach to writing the research diary was to write it as and when I felt like it. My focus in writing the diary was to keep a record of the research process and also to record my own thoughts, feelings and ideas. I wrote up what was important to me at the time and this did include issues of time! I was concerned that I would write the journal for the thesis rather than myself and at times reflected on my motivation for writing specific entries. On occasion, I did find that my motivation was to keep a record for this thesis and I don't think this invalidates my entries. However, I do think that my research diary entries need to be viewed as the experience of an individual who is fairly obsessed with time. This doesn't invalidate the entries but it does mean that they are possibly untypical of the experiences of other project members.

Another technique for ensuring that the research is credible is 'triangulation' and this involves using multiple data sources as a means of creating an accurate account of the research (Bryman and Bell 2003). In the context of ethnographic study, it involves checking out the participant-as-observer's observations with data collected from other sources such as interviews. In this study, I used a used a number of different methods to collect data including: project and mentoring evaluation documentation, e.g. project plans, steering group meeting minutes, project team meeting minutes; online discussion group messages; online module questionnaires; interviews; and research diary. The use of this number of different data sources helped to triangulate the research findings. In addition, the use of three different data analysis methods (visual image, content analysis and metaphor analysis) also helped to improve the credibility of the study through triangulation.

Silverman (2001) suggests that the use of triangulation and respondent validation are not necessarily appropriate in qualitative studies. However, his argument against triangulation appears to be based on the use of data from different contexts rather than the use of multiple data sources within one

context. In this study I attempted to triangulate by comparing data from different sources, e.g. discussion group messages, evaluation questionnaires and interviews as a means of identifying and exploring common themes.

Transferability relates to the possibility of transferring the findings from the particular case study to other situations. This is one of the criticisms of case study research which is often quoted as having low transferability (e.g. Schostak 2002). This research is clearly located in an interpretivist research methodology and its purpose is to explain and understand the temporal landscapes and experiences within one particular educational project. As stated earlier in this chapter, case study research is likely to result in generalisations based on fuzzy logic and this involves the production of a tentative prediction, couched in the terms 'this may happen,' and without a supporting measure of probability. This means that the results from case studies may be transferred or used by practitioners in their own work and the use of the word 'may' is a helpful reminder that every learning and teaching situation is different so that they need to apply the lessons from this research with an awareness of their own complex situation.

Dependability involves validating findings, triangulation and audit trails. In the context of this study, findings from the interviews were audio recorded and then transcribed by an external agency. This process should mean that the accounts were accurate. When I presented quotations or metaphors from these transcripts in Chapters 6 and 7 then I gave the person who originated them the opportunity to check the way in which I was using their data to ensure that I did not distort their subjective experiences. Where necessary the text was then edited to match the intended meaning of the project participant. The use of a range of different data sources was an attempt to produce dependable findings and hence to build up an accurate picture of the temporal landscapes of the project and the temporal experiences of the project members.

Bassey (1999), based on the work of researchers such as Lincoln and Guba, outline the importance of gaining an audit certificate for a particular piece of research. This may involve a colleague reading the final report and sampling

parts of the supporting documentary evidence. In the context of this study, I have shown sections of my thesis to various colleagues who provided feedback. I ensured that there was an audit trail for this study as all raw data and notebooks are available and also printouts of marked up postings. As mentioned earlier in this chapter, two colleagues (Colleague X and Colleague Y) acted as critical friends and reviewed the pilot interviews and their analysis, and also the main research process based on the *EMPATHY Net-Works* project.

Confirmability parallels the concept of objectivity in positivist research (Bryman and Bell 2003). In the context of qualitative research, it relates to the idea of the researcher taking appropriate steps to ensure that they do not affect the research outcomes, e.g. as a result of their beliefs or theoretical interests.

One key issue here is the impact of my different roles as project leader, tutor, e-mentor and researcher on the temporal landscape of the project and the experiences of project members. It is clear that in my role as project leader I have shaped the project and its processes to meet the required outcomes on the basis of my previous experiences, beliefs and assumptions as both a project manager and also tutor and e-mentor. I outlined my positionality in Chapter 1 and throughout the research process I was very aware of the ways in which both my multiple roles and also my values and beliefs would affect this research process. Given that this is an ethnographic case study and I am in the role of participant-as-observer, I included my own experiences and reflections on these experiences in this thesis and they are explored in Chapters 7 and 8. This means that my own position within the research process becomes a data source rather than a methodological problem area. This approach is in accord with the work of Sikes and Goodson (2003:34) who argue that the "given that the researcher as person is already there, we must not pretend that it is possible to forget their personhood, their histories and all that that entails" and that reflexivity should be an integral part of the research process.

A major potential problem area relates to my own internal temporal landscape and values and beliefs about time. My internalised approaches to time will

have had an effect on both the *EMPATHY Net-Works* project and also this research process. In this research, I have tackled this issue by reflecting on my research process and findings, and this issue is considered in Chapters 7 to 9. In particular, Chapter 8 contains my own reflections on time and this research process and its outcomes.

However, it is possible that I could have put time on the agenda of both the project team and also for student/mentees and mentors. In terms of the project team and the project process, I was careful not to share or discuss my interest in time or my previous temporal research within the context of the project during the first 8 months of the life of the project which lasted for 16 months. In addition, I was careful not to introduce the topic of time in any of the online discussion groups or chat rooms that were available to students/mentees or mentors. However, once we began to evaluate the project then I introduced my research interest in time so that this could be included in the evaluation process. This meant that my interest in time was part of the project team's agenda during weeks 9 – 16 of the project process.

5.8 Summary

Although this chapter is presented as a linear sequence of ideas, my research process was much messier. My reasons for selecting my methodology, i.e. an interpretivist approach, were very much based on my previous research experience and interests, and also my knowledge of the networked learning literature. Having made this decision, I then back-tracked and read the literature on educational research to help me to articulate and justify this methodological approach. My next idea was to carryout a case study and I explored this approach through an assignment earlier in my EdD studies. I stayed with this idea and then as a result of reading the work of Bourdieu (1977) and Loureiro-Kochlin (2006) I realised that I needed to broaden the scope to include my own role as participant-as-observer. This realisation led me to explore the literature on ethnography and to re-frame my study as an ethnographic case study.

My earlier experience of temporal research, in the context of a virtual learning community, meant that I was quite comfortable with the idea of using a multi-method approach and a wide range of data sources including: project and mentoring evaluation documentation, e.g. project plans, steering group meeting minutes, project team meeting minutes; online discussion group messages; online module questionnaires; interviews; and my research diary. As the *EMPATHY Net-Works* project progressed, I realised that I would have access to vast amounts of data and decided to use the computer software (NVivo) in the analysis process. Part of my motivation for using NVivo was to learn how to use it so that I would develop my research skills. Using this software enabled me to carryout a content analysis and metaphor analysis of the data. As I read the contemporary temporal research literature, I realised that I needed to find an effective method of representing the temporal landscapes of the project and the Business School. Serendipitously, I saw an ecological calendar and this made me realise that I needed to produce visual timelines and other representations of the temporal landscapes.

Issues of ethics and access are presented mid-way through this chapter but in reality they were considered at the early stages in the research process i.e. at the research proposal stage when I completed ethics application forms for both the University of Sheffield and the University of Hull. This section is followed by a consideration of research issues and I used the approach described by Bryman and Bell (2003) for qualitative research and this involves the concepts of credibility, transferability, dependability and confirmability. Although these concepts are explored at the end of this chapter, I was concerned with these issues from the very start of the research process and I have continually reflected on them throughout the research.

The next chapter presents the research findings.

Chapter 6. Findings

6.1 Introduction

The aim of this chapter is to present my findings and develop a picture of the temporal landscapes of the Business School and the project, and also to explore the temporal experiences of project members. In addition, I explore the temporal landscape of the module and the students' experiences during the module. Finally, I explore the mentoring process and the experiences of students and mentors.

6.2 Temporal landscape of the Business School and the project

The temporal landscape of the Business School and the project was investigated using a range of data sources including: university and school documents e.g. academic calendar; *EMPATHY Net-Works* project documents; interviews with two Business School colleagues and project team members.

My findings indicate that the concept of clock or calendar time underpins the structuring of time within the Business School and the *EMPATHY Net-Works* project. This is illustrated in a number of different ways: artefacts in the Business School and project offices, e.g. wall clocks, time display on visual display screens, signs advertising opening and closing times of buildings and facilities such as cafés, the annual academic calendar, start and end dates for semesters or individual modules, and the project plan. In addition, individual project members also worked on the basis of clock or calendar time and this is investigated later in this chapter.

The temporal landscape of HUBS is linked to that of its parent organisation, the University of Hull, and an academic calendar built around two twelve week long semesters and graduation ceremonies in January/February and July. Associated with this calendar, there is an annual cycle of recruitment and admission events involving open days, clearing and then induction which

includes registration. In addition, there is an annual cycle of formal committee meetings at the university level (e.g. Learning and Teaching Committee, Quality Committee, Academic Affairs Committee, Senate, Council and Court) and within the Business School there is another series of committees scheduled to feed into the university-level meetings. This cycle of events is planned at least a year in advance and it is captured in published academic calendars: one for the University; and one for the Business School.

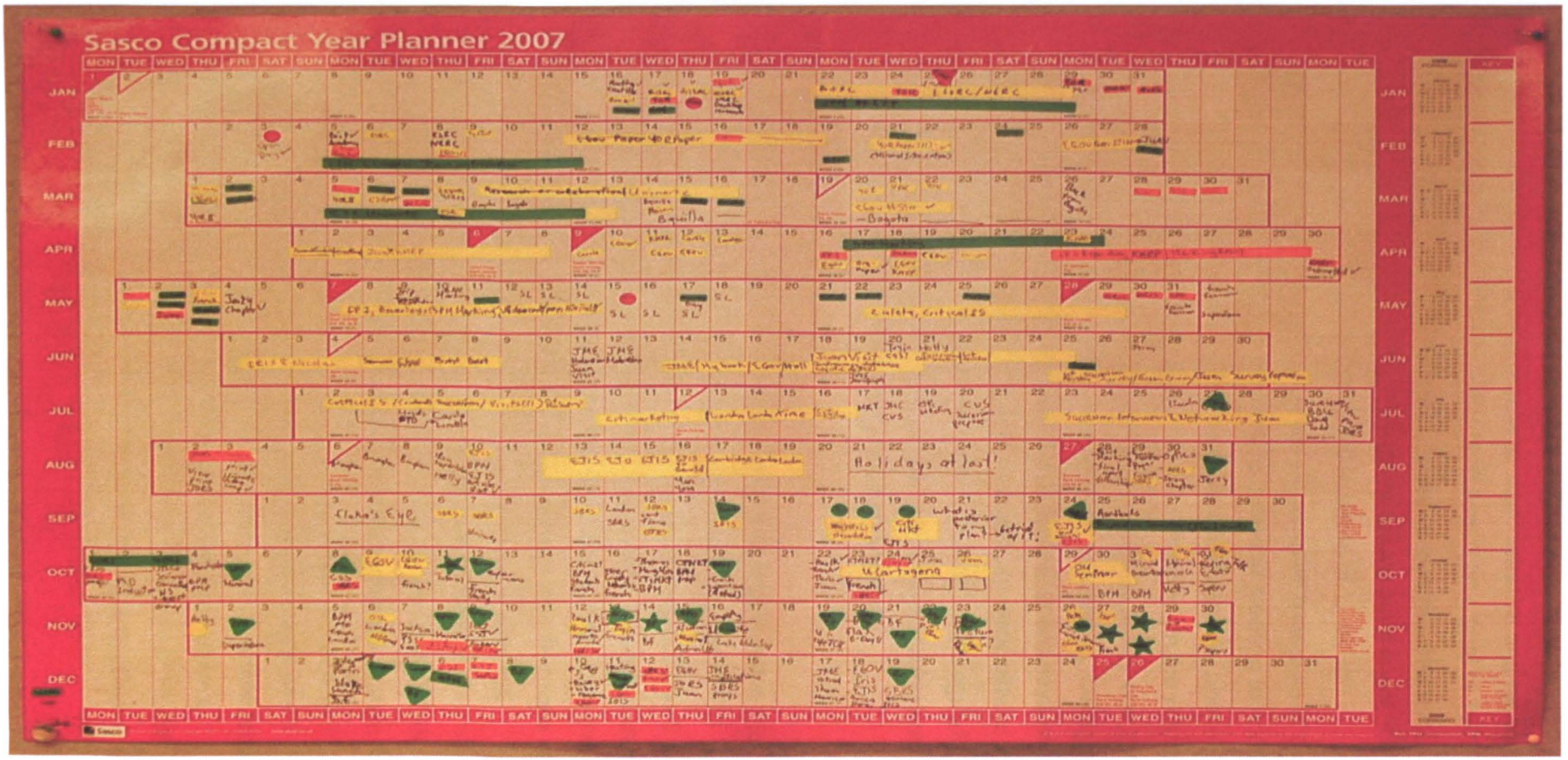
These academic calendars are presented in Word tables and do not fully visually represent the annual cycle. One colleague provided me with a copy of his wall planner (see Figure 6.1) and this is colour coded and indicates teaching duties that are focused between mid-September to mid-May, and research activities that take place between mid-May and mid-September. Two members of the Business School were interviewed as part of the pilot interviews about their temporal experiences. They both talked about the annual academic cycle and the rise and fall of their workloads in time with annual events such as the start and end of semesters, module and programme boards, and conferences. One colleague, commenting in 2007, that the academic calendar was in fact structured around traditional natural cycles of the seasons and welcomed the differences she experienced between the winter months when she experienced her heaviest workload and the summer months when her workload was lighter.

> I am bogged down by the demands of the semester and the annual university calendar. This doesn't match my own learning goals or career development plans. It means that I have two calendars in my head: the university one and my personal one. They are often in conflict with each other and the demands of the RAE have made this much harder than normal. I'm being idealistic but if these two calendars could be integrated into a more holistic one then I'd probably be more productive and less stressed.

This quotation demonstrates the temporal demands on this individual and the ways in which personal and organisational timescapes are in conflict with each other.

In their descriptions of the working lives, colleagues often mentioned their ' workload' i.e. the list of activities that they agree to carryout each academic

Fig 6.1. Year planner



year. These are made up of a series of teaching, administrative and research activities and each activity has an associated tariff based on a total of 1600 workload units per academic year. A typical comment made with respect to the workload was '"I get 200 hours to be programme leader but it is not enough" and although the workload is described in terms of 'units' all colleagues actually talked about workload hours. They gave examples of their daily experiences which typically involved moving from one meeting to another or lecture to lecture. In between times, they caught up with e-mails, phone messages and other demands on their time. They commented on the volume of e-mails and information that they were required to manage at any one time. They described strategies for dealing with their work pressures e.g. Colleague A regularly (about once a fortnight) work from home for one or two days as a means of giving herself "time to breath and catch up with my work without the constant pressure of interruptions. It gives me space to think". Colleague B described working in her office with her light off (so that no-one would know that she was on-campus) and scheduling time to work at home.

The *EMPATHY Net-Works* project was one of a series of project within the Business School and the project activities were not included in the HUBS academic calendar i.e. it was invisible within the annual calendar. Table 6.1 compares the temporal landscapes of HUBS and the project. This table shows a calendar that starts in the academic year 1999/2000 which is the date the Business School was founded and it runs up to the present day. For ease of representation, the HUBS calendar depicts the two semesters plus the summer break for each academic year and the externally- funded ESF projects includes the WISE, *EMPATHY, EMPATHY EDGE and EMPATHY Net-Works* projects which were all aimed at encouraging graduate women into management and employment. Each of these projects began at the start of the academic year. The shaded areas show periods of discontinuity when these (or similar) projects were not in existence. However, during these time periods members of the Business School were actively seeking external funding.Table 6.2 looks in more detail at the temporal landscapes of HUBS and the *EMPATHY Net-Works* project. This table compares the detailed activities that took place between August 2006 and December 2007.

Table 6.1. Temporal landscapes of HUBS and ESF-funded projects.

Calendar	*HUBS*	*ESF-funded projects*
1999/2000	Semester 1	
	Semester 2	
	Summer break	
2000/2001	Semester 1	
	Semester 2	WISE project
	Summer break	
2001/2002	Semester 1	
	Semester 2	
	Summer break	
2002/2003	Semester 1	
	Semester 2	*EMPATHY project*
	Summer break	
2003/2004	Semester 1	
	Semester 2	
	Summer break	*EMPATHY Edge project*
2004/2005	Semester 1	
	Semester 2	
	Summer break	
2005/2006	Semester 1	
	Semester 2	
	Summer break	
2006/2007	Semester 1	*EMPATHY Net-Works* project
	Semester 2	
	Summer break	
2007/2008	Semester 1	
	Semester 2	
	Summer break	

Table 6.2. Temporal landscapes of HUBS and *EMPATHY Net-Works*

Calendar	HUBS	EMPATHY Net-Works
August	Summer break Research Administration	Formal start of project Recruit team
September	Administration Start of academic year	Planning and curriculum development
October	Semester 1	Planning and curriculum development Steering group ESF report
November	Semester 1	Planning and curriculum development
December	Semester 1 Christmas break	Recruitment Christmas break
January	Assessment period	Recruitment ESF report
February	Semester 2	Cohort 1 starts module Recruit cohort 2 & mentors
March	Semester 2	Cohort 1 start mentoring Cohort 2 starts module Recruit cohort 3 & mentors
April	Semester 2	ESF report
May	Assessment period Administration	Cohort 2 starts mentoring Cohort 3 starts module Recruit cohort 4 & mentors Steering group
June	Research and administration	
July	Research and administration	Cohort 3 starts mentoring Cohort 4 starts module Cohort 4 starts mentoring ESF report
August	Research and administration Vacation	
September	Administration Start of academic year	Cohort 5 starts mentoring
October	Semester 1	Steering group ESF report
November	Semester 1	Project evaluation, dissemination and reporting
December	Semester 1 Christmas break	Formal end of project ESF report Christmas break

The academic calendar for the Business School and the project schedule both included holidays i.e. Christmas and an Easter break. The academic calendar was driven by the annual timetable (teaching, assessment and vacation times) and within HUBS the calendar included the official university reporting cycle and also external accreditation events. The project schedule focused on similar activities i.e. teaching and assessment schedule, and also the timing of the mentoring process for each of the cohorts of students. In addition, the *EMPATHY Net-Works* project schedule included: specific project research and evaluation activities including: a dissemination event i.e. project conference; steering group meetings; and completion of ESF reports.

The temporal landscape of the project was clearly fixed by the contract with its funder, the ESF i.e. the project had a clear start and end date. The project team developed their own project plan (see Table 3.4) as a means of ensuring that they met the project objectives. The *EMPATHY Net-Works* project's events such as the steering group meetings were not included in the Business School's annual calendar but project team members had their own project schedule which was displayed on office walls and circulated to all members. Within the context of the project objectives and deadlines, individuals managed their own time. In her interview, Project worker A described her temporal experiences as follows:

> On the project I felt our time was, you know, well managed and we, as a team, looked at our objectives and where, how and when we might reach those and individually I was able to manage my time and look at how I might meet those objectives within that timescale on my own, on my own timescale if that makes sense. So within sort of the larger goals I was looking at putting those into more manageable schedules for myself. So that I guess on a weekly basis I knew what, what had to be done. And, what my targets were.

Individual project members commented on the pace of working on the project in different ways, and identified busy and quieter periods. For example, Project worker D commented:

> The time has actually flown by, because you have tight deadlines for every part of the project. The days, weeks, just absolutely fly by and what I find amazing is how busy we are and how much we achieve. We haven't had any slack times. Though it was quieter just before Christmas and then in August. We fit much more work in than on my previous project. We have used the template of that project and then

> developed that template. We have fewer meetings and that means less preparation and time on paperwork. It has saved us a lot of time. ... The ESF deadlines are the foundation of it all but I think within that we all set ourselves little timescales for each thing that's happening....

Project worker C identified quiet and busy times

> There have been times when we had quiet periods. But I needed to do stuff like writing articles and work with NVivo. In a way, I used that to fill the time and also to do an extra. When the students were here it was very busy. Sometimes I was still helping them in the evening. Also, we were very busy preparing stuff for the steering group and conference ... Our schedule was based on when we could recruit students. That drove us. So we had to do it in 16 months. That drove us, so that was like a frame.

Project worker B described her experiences of joining the project and illustrated that, until she settled into her new role, her work experiences spilt over into her home life:

> The project did seem very busy, when I first arrived, I kind of hit the ground running in terms of time I feel that I, I had enough time to get everything done, but I was very busy, probably didn't feel as if I had a lot of time to actually sit and, maybe the first two weeks when [Project worker A] was there I had thinking time because A was there as well, and even maybe the first week when I was left on my own but then when I really got into it, there was still thinking time but it was a lot, a lot busier, a lot, lot more fast paced. Every now and then when I had five or ten minutes, you know, I sat and thought about it. When I first started a lot of my thinking was done at home, because when you first start a new job and you're a bit concerned, like I said about whether you can do it or not, you tend to mull things over, in bed on a night. Or when you are watching TV, your mind starts ticking to the things that you're doing at work, so I think most of my thinking time was probably done in my personal time when I first started the job. I think I was too busy at work, trying to understand things, which I suppose does include thinking time as well, but actually reflection I suppose was done more at home than at work. Once I settled in then it did slow down and it felt, I felt more controlled and in control, I knew what I had to do, when I had, when I needed to do it by, I set myself like little deadlines in my calendar as well, so I now when things have got to be done and I think then I did have more time actually just to relax at work and think about things at work and I would think that the thinking time at home did reduce quite considerably once I got over the first month or so in the job.

The tutors, who were also actively involved in HUBS teaching, administration and research described their experiences of semesters using metaphors such as: "pressures of time"; "there is no breathing time"; "no gaps"; and "I'm always racing from one thing to another". These indicate that they felt pressurized in their working lives.

Differences in opinions were evident in the project workers' perspectives on the connections between the *EMPATHY Net-Works* project and the Business School. For example, Project worker D commented:

> If we had to deal with the Business School timescales it would only delay things. So I think from a project point of view we need to be separate and have our own timescales. Sort of running to our own rhythm.

Project worker C commented:

> We didn't fit into the Business School and things like semesters. We fit in in other ways but not with our time.

However, their experiences contrast with my own as in my diary I noted:

> Too much to do. ESF deadline looming and also getting publicity material approved. HUBS is very busy too – round of forms to complete – module and programme – as well as too many meetings.

This difference probably relates to the project workers working on the project for 100% of their time while I had other responsibilities within the Business School. Another example of a clash between the demands of the Business School and the project occurred when Tutor A's work within HUBS clashed with her work on the *EMPATHY Net-Works* project with Cohort 3 in May/June. This clash was sorted out as I took on this additional work. Within the project, individual team members helped each other out when individual workloads peaked .

The project team also established their own weekly time frame and members reported that this evolved around the project administrator's weekly schedule. She worked on Tuesdays, Wednesdays and Thursday morning and this meant that all project meetings took place on these days and project members tended to work in the office on these days. Mondays and Fridays were used for research and development activities, or writing up project reports. This contrasted with the weekly timeframe in the Business School where Monday was a very busy day and one where the largest number of staff was on-campus. This meant that each week could be divided into busy periods and also times when developmental or research activities were taking place (see Table 6.3). Saturdays and Sundays were designated as personal time although all the tutors and also the project director regularly worked at home during the weekends. The activity logs from the iCohere site indicated that although students and mentors sometimes accessed the e-learning or e-

mentoring site over the weekend it was extremely rare for project team members to visit it over the weekend.

Table 6.3. Weekly timeframes

	HUBS	*EMPATHY Net-Works* project team members	*EMPATHY Net-Works* students/mentees and mentors
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday	**Personal time**		
Sunday			

Key

	Scheduled activities and busy period		Developmental and research activities

In summary, this section illustrates that there are similarities and differences between the temporal landscapes of the Business School and *EMPATHY Net-Works.* The project was one of a series of projects and it had a clear start and end to its life and one that is determined by its funding body, the ESF. Findings from interviews indicated that individuals working within the Business School and on the project experienced different tempos in their working lives. They experienced busy and quieter periods within the academic cycle and also within the project timeline.

6.3 Mapping activities to time.

Timetables and schedules are commonly used within academic life and also projects. In this section, I bring together my findings that illustrate how different activities or events relate to each other and time.

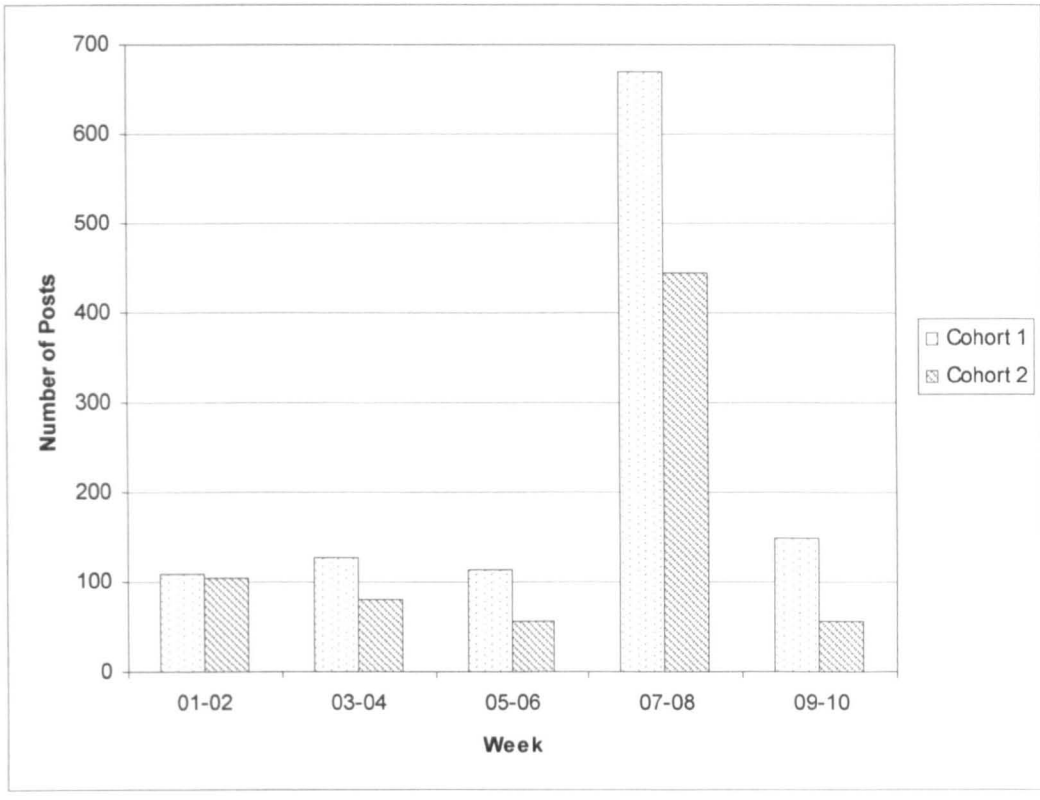
The first example involves identifying a timeline for a specific activity e.g. the project as a whole, the taught module, or the e-mentoring process. These timelines have already been presented e.g. for the whole project in Table 6.2, the module schedule which is illustrated in Appendix B, and the mentoring life cycle and this was outlined in Chapter 3 and illustrated in Figure 3.4.

Sometimes activities are repeated multiple times. In the context of the *EMPATHY Net-Works* project repeated activity mapping can be applied to the whole project which is one of a series of projects (this is represented in Table 6.1) or the module which was repeated four times: Cohort 1 – February; Cohort 2 - March; Cohort 3 - May; Cohort 4 – July. Within each module there was a series of learning or teaching activities. In the first three deliveries of the module, learning activities were scheduled on a weekly basis (see example schedule in Appendix B) but on the three day intensive the intervals between different learning activities varied from 30 to 180 minutes. I found no evidence of repeated activities in the e-mentoring process apart from the repetition of meetings (online, by phone or face-to-face).

Some cycles of change which led to a transformation were also identified within the project. An example of a single transformational activity at the level of the project is the project development cycle stages: planning and recruitment, delivery of modules and supporting the mentoring process, project dissemination and project closure (see Table 6.2). Important deadlines were those for completing the ESF reporting and financial claim forms. From the perspective of the students, the module and/or mentoring process resulting in them gaining employment or progressing to another programme of study or the next stage in their life, i.e. membership of the project led to a transformational experience. In the context of the module an important

deadline, and one that is traditional in higher education, is that of the date for completing assessed work. These dates changed the pace of the activity as illustrated in Figure 6.2 which shows the number of discussion group messages posted in the iCohere system over weeks 1-10 of the module for Cohorts 1 and 2 and the high points indicate increased activity due to the deadline for handing in assessed work at the start of week 9.

Figure 6.2. Pattern of online activity in Cohorts 1 and 2.



Within the project, a number of activities took place at the same time and this is represented in Table 6.4 where the shading indicates the multiple deliveries of the module and also establishing and supporting the mentoring process. The first three cohorts were scheduled with a module timetabled over 12 weeks with breaks for the Easter vacation and Cohort 4 was scheduled as a 3 day intensive programme. This table illustrates that from April to July there were multiple activities taking place and these were monitored and managed by Project worker A sending out a weekly e-mail which listed the scheduled activities for that week. This view of the project as involving a series of multiple

activities taking place at the same time is relevant to the temporal landscape as it provides an indication of some of the features of the landscape.

Table 6.4. Multiple activity mapping

	Cohort 1		Cohort 2		Cohort 3		Cohort 4	
Feb.	Module							
Mar.		Mentoring	Module					
April								
May				Mentoring	Module			
June						Mentoring		
July							Module	Mentoring
Aug.								
Sept.								
Oct.								
Nov.								
Dec.								

Another issue that was found within the project relates to a concept called the 'relocation of time' and this take place if two activities conflict then one may be re-scheduled so that it takes place at a different time, or it may be redistributed. One example of this situation occurred when Tutor A's work within HUBS clashed with her work on the *EMPATHY Net-Works* project with Cohort 3 in

May/June. This clash was sorted out as I took on this additional work. Other examples were reported by students who experienced clashes with their child care responsibilities and module activities. Many small examples of relocation of time took place as individual team members helped each other out with small scale tasks.

6.4 Timescapes of project team members

The timescapes of project team members relates to their temporal personality i.e. individual's experiences of time and how they relate to time. This was explored using data collected in interviews and also from my research diary.

In the interviews, all project members were asked about their temporal horizon i.e. how far do you look ahead in terms of your work or career? The answers to this question could be grouped into those people who saw their horizon as being the end of the project (Project workers A, B, C and D) and a typical comment was "I can only see to the end of the project. But, really I know I have to start looking for another job in September." Project workers A and D also identified personal horizons relating to the forthcoming birth of a child and also a partner's serious operation. In contrast, Tutor A's horizon related to the end of the academic year while that of Tutor B, who was on a temporary contract, related to a personal matter. As project leader, my focus was mixed and included the end of the academic year, the end of the project and personal concerns, i.e. completing this thesis and my daughter going off to university. These findings suggest that individual temporal horizons are affected by the nature of our employment (temporary or permanent contract), our roles, e.g. working in the Business School on taught programmes as well on the *EMPATHY Net-Works* project, and also our personal lives. This is explored in more detail in Chapter 7.

The next set of temporal characteristics relate to temporal orientation which is concerned with temporal perception or a sense of time, the way in which an individual perceives time, their temporal focus in terms of the past, present or future. I obtained information about individuals' sense of time by noting their typical behaviour towards attendance at meetings and then asking them for

their perspective in the interviews. Project workers A and B, and Tutor A described themselves as always being on time for meetings. My own observation was that they typically arrived just on time i.e. not early and not late. This contrasted with Project worker C and Tutor B who frequently arrived a few minutes late. In her interview, Project worker C commented 'I like to be early or on time but sometimes I get delayed and am a few minutes late.' In contrast, Project worker D was always early and frequently had to wait 5 minutes before any meeting started. My own pattern is that normally being early. In the interviews when I noted my observation about individuals' sense of time, each interviewee nodded in agreement and laughed with comments such as 'That's the way I am' (Project worker B).

In the interviews, Project workers B and C talked about differences in temporal perception with stories about individuals who had 'no sense of time' and the tone of these revelations were that of telling a 'shocking' story. In each case, the person who had 'no sense of time' appeared to break temporal norms.

> There was one person, in particular, who had no concept of time.... She would come and ask you to do things regardless of what else you had to do and basically if you had to stay there until nine o'clock at night, you did it. But, you know she didn't have any time barriers. She just got done what she had to, regardless of the day, time, evening, night, whatever. She didn't think or consider other people's situations.
>
> Project worker B

> XXX is very different from me. His perception of time, I tell him, you don't have perception of time, time is nothing.... If I tell him let's meet in 10 minutes I have to ring him thirty minutes after, I say: "eh, where are you?" He says: "I'm coming". So, he forgets about time. Whereas, I'm more aware about time if we're having a meeting or something like that.
>
> Project worker C

In the interviews, individuals were asked about their temporal focus i.e. was it on the past, present or future. Project workers A, B and D described their focus as being on the present and future and Project worker C identified her main focus as being the future "I am always thinking ahead to the future. It is exciting." Tutor A described her focus as being on the past/present and future, and talked in terms of thinking about the past and the future on a regular basis. In contrast, Tutor B described her focus as being on the past and future and did not focus on the present. As she has recently experienced major personal

changes in her life then this possibly illustrated that she was re-evaluating some of her life experiences and actively planning changes to her life.

I also asked individuals about their work-life balance and their boundaries between work and their home life. Project workers A, B and C all had a similar attitude to their work i.e. they organised their working lives around completing their tasks and they were quite flexible about working late if they needed to complete a task. For example, Project worker C stated:

> Here I feel I have freedom, if I come at ten I don't think no-one would say anything, as long as I do my job. Yeah, in that, in that regard, in that respect I feel like more, um, freedom and this is more, this is more flexible environment, hum. If I want, I could come on the weekends or all night [laughs].

In contrast, Project worker D normally kept regularly office hours and would not normally stay late even if there was work to be completed. She made the following comments:

> My family comes first and I fit work around their needs. We go away for long weekends with the caravan and I don't want to disturb that. I will work late or different days if there is a special reason but not normally. I don't need any extra hours. This suits me fine.

Both tutors described themselves as taking work home if they were unable to complete it in the workplace. Tutor B commented "I regularly take work home. Marking mainly. We all do – it's the only way to keep on top of it." This reflects my own approach i.e. I tend to work normal office hours but I take work home when it is required and either work late or come in early in order to complete my work. In conversations with the tutors, it became clear that we all clearly distinguished between the boundaries of work and home, and made conscious decisions about when to take work home or whether or not to work outside 'normal' office hours. These findings are analysed and discussed with respect to Westenholz's (2006) work in Chapter 7.

Bluedorn and Standifer (2006) introduced the concept of temporal depth and this refers to the distances into the past and future that individuals think about things. Findings from the interviews indicated a range of temporal depths. Three project workers identified a temporal depth ranging from one year ago to the end of the project. Project worker A's temporal depth was focused

around her pregnancy and birth of the child, and she talked about 'before I was pregnant' and 'after the birth.' In contrast, my temporal depth was very narrow from about one week ago to up to six months ahead and I tend not to have long term goals but keep doing what I'm doing until I became bored and I then look for something different to do. I associate my approach to not having any specific career plans but following my interests and enthusiasms. In contrast, Tutor A's time depth was quite different to the others. She defined a professional time depth which involved living in the moment and then looking forward for up to six months or a year. She linked this with the academic annual calendars. She identified that her domestic time depth was quite different and involved looking back intermittently over a long period of time (up to 20 years in the past) and also looking forward to and, in general, making plans for the next five, ten and twenty years. She talked about this looking ahead in terms of "lifestyles I want to taste."

I also asked individuals if they preferred to carryout one activity at a time or to be working on a number of different activities at once. One member of the project team and one of the tutors expressed a preference for working on one activity at a time (monochronic working) although both commented that it was often difficult to achieve. I observed extensive evidence of multi-tasking (or polychronic working) with three members of the project team. Frequently, when I visited their office they would be engaged in conversation with each other, taking part in a virtual chat or messaging session, and/or sending and receiving text messages. These all appeared to be taking place at the same time.

Team workers regularly logged into the iCohere for the whole day and this meant that they were essentially 'available' to students and mentors, and so they were involved in multi-tasking as they shifted their attention from their desk-based work to responding to students or mentors. This caused some tensions, e.g.

> Once we were in the module, if I was logged into the system, which I tried to do a lot, so I was visible, but that meant, yeah, students would, whenever they wanted call on me to have a [virtual] meeting and if I was online expected me to be available and that meant often that, you know, they could take up quite a lot of time. Which I might otherwise

> have, you know, been planning to spend on something else, so it was very much led by their needs.
>
> Project worker A

In the interviews, project team members mentioned their satisfaction in working on a project and 'being involved in something new that no-one else has done'. One person commented 'We are breaking new ground.' One of the consequences of this aspect of project work was that many activities were novel to the project team, Project worker B reported this effect the first time that she wrote a skills report for a student. She said: "Looking back I don't know why it took so long. I was very anxious that I'd make an error and worked on it for hours. The student gave me good feedback which was a relief."

In summary, the project workers presented a range of timescapes indicating different temporal characteristics and these appear to be linked to individual factors, their working lives and also their personal circumstances.

6.5 Timescapes of students and mentors

The timescapes of students and mentors relates to their temporal personality i.e. individual's experiences of time and how they relate to time. These findings are based on the interviews with two students and two mentors, and it provides an insight into their experiences.

One example of a variable that is concerned with temporal perception is that of 'time horizon.' In their interviews, both students described their temporal horizons as being the end of the module and also personal ones i.e. youngest child starting school and the opportunity to start a full time Master's degree. In contrast, both mentors identified their temporal horizons as related to their work and personal lives. Another variable that relates to an individual's timescape is concerned with someone's sense of time. Both students arrived early for their interviews and this matched their descriptions of themselves as always being early for meetings or other events. Mentor A arrived on time for

her interview although she had had to rearrange the meeting due to pressures of work. In contrast, Mentor B was a few minutes late for her meeting and confirmed that she regularly arrived up to 10 minutes late for any event. She described her approach to time as "Efficient. It helps me to fit more into the day."

Another variable that relates to individual timescapes is concerned with their temporal orientation. One student described her focus as being on the present ("I am really focused on completing the module") and the future ("I want a decent job so I can buy a house"). This contrasted with Student B who described her focus as being on the future "I want to leave Hull and complete a Master's degree within the next two years." One of the mentors described her temporal focus as being on the present and future and described herself as "constantly juggling my thoughts between now and a few years hence. If I don't plan now then nothing will happen." This contrasted with Mentor B who described her focus as the present:

> We are just settled into a new house, the children are happy in their new school and I'm enjoying my new job. We are enjoying the present after lots of change.

It appeared that for Student B's involvement in the project resulted in a shift in her temporal horizon from one to two or three years. In her interview, Student B commented that her temporal horizon had changed as a result of her module and her mentoring experiences:

> I normally only think into the next year. Next twelve months. This module has made me think further. It's definitely put some plans in place that are going to take perhaps two or three years to complete. And I think that's a positive thing. It was a mixture of the module and working with my mentor. A mixture. Yes, it, it was just an opportunity to look at where I am and, and seriously make some choices, instead of just expecting things to unfold.

In summary, the students and mentors presented a range of timescapes indicating different temporal characteristics and these appear to be linked to individual factors, their current situation e.g. their role as a student or as an employee in the LaSCI, and also their personal circumstances.

6.6 Students' experiences on the module

The students' experiences on the module were explored using the narrative in the online discussion group messages, module and mentoring evaluation questionnaires and also the interviews. As explained in Chapter 5, I carried out a three stage data analysis process and I used the framework to help me to code the data. However, I identified some themes which are explored in this section and also 6.7 which were not included in the framework.

The three themes that appeared to be particularly relevant to the students' experiences in terms of helping or hindering their learning experiences were: temporal structure of the module; absence/presence; accessing the online site. These themes were identified as they were a recurrent theme that arose in the module evaluation process and also the discussion group messages. Consequently, these themes seemed to be relevant to helping or hindering learning.

The first of these themes relates to the temporal structure of the module and, in terms of the adapted scheme of Ancona, Okhuysen and Perlow (2001), this fits into the sub-category that is concerned with organisational concepts about time. I was unable to code the second and third themes using the classification scheme. These themes (presence and absence in the online community and barriers to accessing the online site) appeared to be important to the students' experiences in the module These three themes are explored in turn.

The taught module was organised using a temporal framework or timetable. This familiar tool helped to guide the students through their learning activities and it would have matched their earlier educational experiences which would have been structured in this manner. The temporal framework varied for the four cohorts as follows: cohorts 1 to 3 were 12 weeks long and cohort 4's module involved a three day intensive followed by three weeks to complete the assessed work (Cohort 5 did not register for the module). Students on cohorts 1 to 3 followed a schedule that involved regular attendance at face-to-face workshops and also a series of e-learning activities. The e-learning

activities were organised by a weekly schedule e.g. Week 1, Activity 1; Week 2, Activity 1 etc. In their evaluation forms, a number of students commented on the time frame of the module as follows:

> The schedule of lectures and activities enables study to fit in easily with other commitments and support is always there when needed.

> I enjoyed the way the course was structured, so much so, that I would like to be able to do something similar again in the not too distant future.

> I think the structure of the module was just about right. There was enough contact to keep up with everyone. But just enough time in between to gather your thoughts and complete the coursework. I didn't ever feel rushed. But there wasn't anytime to spare either.

I found examples of metaphors in the discussion group messages which indicated that some students had a sense of time with respect to the time frames of the module: 'time is marching on'; 'I am now up to speed. I've sorted out the technical problems with C's help'; and 'time is marching on'. One student showed eager anticipation for the next stage in the module:

> I know I'm jumping ahead here... I'm like a train once I get started it's hard to slam on the brakes. I wanted to know about the Personal Development Plan. Are you going to tell us about it on Thursday? Just checking.

Some students found particular temporal aspects of the module challenging:

> The course was rather short and definitely insufficient for a cohort member who is new to logistics and supply chain industry.

> When I logged onto iCohere I easily became distracted from the task in hand my reading all the messages and looking at all the resources. On reflection, for me it would have helped me to be more focused if there had been fewer resources.

The above quotations come from the module evaluation process, my analysis of the discussion group messages indicated that some students had issues with respect to managing their time and, at times, appeared to appear 'out of control'. This is illustrated by the following metaphors used by students with respect to their taught module:

> I have taken on too much at once to enable me to devote the time the module required

I'm a bit snowed under and can't keep up

I was overwhelmed at first

Time not being on our side, nah? I don't think we even tried to use our time well.

In the first three cohorts, students made extensive use of the iCohere system and Cohort 4 students, who attended a three-day on-campus intensive module, made much less use of it. This is illustrated in Table 6.5

Table 6.5. Student use of iCohere during the taught module

	Average number of log-ins per student per cohort	**Average time (in hours) spent in the site per student per cohort**
Cohort 1	86	75
Cohort 2	53	34
Cohort 3	40	24
Cohort 4	10	5

In the context of the module an important deadline, and one that is traditional in higher education, is the date for completing assessed work. These dates changed the pace of the activity as illustrated in Figure 6.2 which shows the number of discussion group messages posted in the iCohere system over weeks 1-10 of the module for Cohorts 1 and 2 and the high points indicate increased activity due to the deadline for handing in assessed work at the start of week 9.

The rate of activity in Week 7 is reflected in Thread A which outlines a series of discussion group messages posted by one group over a 24 hour period as they were finalising their group report. This series illustrates a focused period of activity in which students contributed in different ways to their group activity.

Example Thread A

Module Cohort 1 Weeks 07-08 Group activity - report

Student X 01/05/07 8:38AM Hi, I've been looking at our draft for the report and was wondering if ..... Tell me what you think. I'm available for most of today to work on this if you want me to do anything.
Student X 01/05/07 9:57AM Hi I've done some work on the introduction .... I attach it and have addressed various issues ..... Have a read and tell me what you think? I need some feedback:-)
Student X 01/05/07 11:15AM Hi it's me again, I've written some info on the stakeholders that I omitted from the intro as I thought it would fit in that section better. Please find attached. I will keep going until someone tells me otherwise! .....
Student X 01/05/07 11:37AM The other info that I removed from the intro although relevant will add to our word count so I thought we could put it in as an appendix at the end. What do you think?
Student X 01/05/07 12:21PM I've been playing around with what we have and have redrafted the report..... I will stop working now and wait for someone to contact about what you want to do now.
Student A 01/05/07 2:36PM X that's excellent. It really looks professional. I've just logged on and have about 30 mins before the baby wakes up! I'll read through it and add my references and any comments and post it for other comments soon. Bloody marvellous - you should feel proud for sure.
Student A 01/05/07 3:06PM Hi all, So I have read the draft and added some extra comments in the stakeholder section - see attached.. ... I won't be online again today, but if you are carry on the great work! I'll be online tomorrow morning and will help to pull it all together if others have read it by then.
Student F 01/05/07 3:27PM This is fabulous as it stands ... I feel honoured to have my name included.... I think it's ready for submission. Hard and soft sounds good.
Student L 01/05/07 5:36PM Hi all, Had major technical problems ....but with the kind help of C, I am now up to speed. ... I will crack on and do my bit- sorry to be so last minute but that just seems to be the way I work. Will post later.
Student X 01/05/07 5:40PM Hi L, I don't suppose you have any information on graduate job opportunities that area seems really weak. Any ideas?
Student L 01/05/07 5:42PM X, I will do a bit of surfing and see what I can find.
Student L 01/05/07 6:09PM Great website .... www.alertnet.org Check it out, looks good.
Student X 01/05/07 6:43PM I don't suppose you could write a short piece intro what sort of jobs are available in HA, about 100 words would do PLEASE, I can't think how to word it myself other then "due to the increase in technology ..... HA sector." Please add some more :-)
Student L 01/05/07 6:54PM No probs will work on that. However, can you please help me...Is it amtrx or amtrax or what as I am coming up blank? Cheers.
Student X 01/05/07 6:58PM You will have to bear with me as I'm dyslexic and my spelling isn't the most reliable. The program that was developed was called i2 and it was used during the Katrina disaster and it was an adaptation from amtrax!
Student L 01/05/07 7:08PM All I'm getting for amtrax is the US rail/bus service, a computer thing in the Netherlands and some site in New Zealand that won't open up. Do you have the actual website address please? If not- I really don't know what else to do.
Student F 01/05/07 7:14PM Have we used those grad opportunities that J came up with back in no42 or something like that - I think we have ..... I say it's time to call it a day (though I would say that wouldn't I think we have a damn fine report!
Student X 01/05/07 8:08PM Hi in Google I put i2 software and Katrina disaster to find further information or you could try these : www.eweek.com/article2/0 www.inboundlogistics.com .....Hope it helps

Student R 01/05/07 9:38PM The draft looks great! Just the employment opportunities from L and it's sorted. Sorry I can't be much help with that one, I struggled with that too, but I am sure J did post some opportunities on her message when I raised that issue earlier!

The example presented in Thread A illustrates a series of messages in which one of the student groups were working collaboratively together. One student commented on this experience:

> I would like to say how much I enjoyed the course especially all the 'buzz' this week to complete the group work on time. Yes it has been a stressful week but there was so much energy and adrenalin. I even had difficulty sleeping (rather rare) after posting both group reports at 12.50am. I am not usually up that late!

This rapid rate of work contrasts with students' experiences at other times during their taught module where there appeared to be more time for reflection:

> I completed my questionnaire and was surprised how much thought I had to put in to answer questions about myself. The only time I tend to think about my own strengths and weaknesses are periods leading up to interviews, or annual reviews at work. I look forward to reading my report, and like others, hope that I can add more "strongly agrees" at the end of the course.

A very different tempo was found in other activities, e.g. Thread B presents the thread of messages from Cohort 1 relating to moving into employment. In this activity, 5 out of 14 students contributed to the initial posting from Tutor A and this exchange took place from he 19 April to the 9 May i.e. over a period of 20 days.

Example Thread B

Module Cohort 1 Weeks 09-10 Moving into employment

Tutor A Start Date: 19/04/2007 4:17PM
Hello everyone, The purpose of this activity is to reflect on your own approaches to gaining employment....
Student E 19/04/07 8:45PM
It will have to be the "real" me. I will emphasize the key skills I am good at. .....
Student X 29/04/07 8:09PM
I am really proud of my cv and think that it give potential employers .....
Student F 30/04/07 5:24PM
I have a question...
Tutor A 01/05/07 9:55AM
Hi F, I'll introduce the personal development plan on .....
Student K 02/05/07 11:38PM
My cv has been tailored towards .....
Student V 09/05/07 9:33PM
My CV has now been changed with less emphasis on .....

Another example is given in Thread C which summarises a thread of 24 discussion group messages in which students posted their reflective commentaries (which formed part of an assessment activity). This thread lasted from 5 April to 14 June i.e. approximately 2 months.

Example Thread C

Module Cohort 2 Weeks 07-08 Project management – reflection on workshop

Tutor A 05/04/2007 10:17 am

Message introducing reflective activity following project management workshop.
Student G 10/05/07 5:22PM
I found last week's workshop really interesting...
Tutor A 11/05/07 12:03PM
G, Thanks for your reflection .....
Student M 16/05/07 9:11PM
Hi everybody! I found the PM session very useful....
Student E 17/05/07 9.33PM
Hi, on reflection the project management was a refresher....
Student D 17/05/07 10:28PM
Hi, I was surprised when I realised...
Student T 17/05/07 11:30 PM
I found the project management session....
Student J 18/05/07 7:13PM
Hi, the lecture brought back a few familiar words to me....
Student Z 19/05/07 7:01PM
Hi everyone, Sorry my submission is so late...
Tutor A 20/05/07 9:11AM
Hi everyone, thanks for all your contributions...
Student T 20/05/07 10:28AM
Hi. Sorry this is a bit late...
Student E 20/05/07 11:54AM
Hi, unfortunately I was unable to attend the session....
Student Mi 20/05/07 12:57PM
Hi, on reflection this session.....
Student Z 20/05/07 1:11PM
Just continuing my contribution...
Student L 20/05/07 9:13PM
Hi, PM is involved in our daily life.....
Student S 20/05/07 10:26PM
Hi, sorry this is so late...
Tutor A 21/05/07 8.55AM
Gosh, you have all been busy over the weekend....
Student G 23/05/07 9:41AM
My conclusion is...
Student N 24/05/07 5:44PM
I too start with an apology and the realisation that PM is only a new buzz term..
Student A 25/05/07 11:00PM
Unfortunately I missed the session on project management...
Student D 03/06/07 7:32PM
It does not bode well and ....
Tutor A 04/06/07 1:33PM
Hello D, many thanks for your thoughtful contribution...

Student J 14/06/07 1:56PM
Attached is my project management reflection...
Tutor A 14/06/07 2:49PM
Hello J, Many thanks for your reflective statement....

These three threads all indicate that within the taught module students contributed to online discussions for different activities at different rates ranging from those that included intensive bursts of activity, e.g. Thread A, to conversations that took place over a more extended period of time.

The taught module was delivered using a mixture of face-to-face and online activities. The students kept in touch with each other through the taught university-based sessions, through the discussion boards in iCohere and also by private e-mail, text and phone conversations. Once they became familiar with working in iCohere many students did not differentiate between different types of meetings and they developed an assumption that they would hold online rather than face-to-face meeting. This is illustrated in the following quotations where the second quotation

> I think that you have a valid point XXX as the research will help us for our individual work as well. However it may still be a good idea to meet. Is the evening more suitable for you? I don't mind 9pm as that is easier for me. Any ideas C and D? What about Thursday or Friday evening or any other evening?
>
> Hi S, I am glad that you are joining our group. I think that you misunderstood us. We were talking of 'meeting' in the chat room. Perhaps you can tell us when you are back on line when you are available to 'chat.'

There was a continuous flow of discussion group messages in which students informed each other of their absence or presence in either the online and/or face-to-face workshops. This is illustrated in the following quotations:

> I didn't make the session due to illness. See you next week.
> Just to let you know I am on hols til Friday so don't worry if you don't hear anything from me this week. I'll post my section and catch up at the weekend.
>
> Am sorry for the silence. Still not better. Entire house has been confined to bed over last week....
>
> Where are the others? We haven't seen them for a while. I hope everyone's ok.

> Hi. Sorry for wizzing away on holiday without a word. Thought I was going to be able to get access to the Internet but didn't.

If a student was absent from the online environment for more than a week then another student typically posted a supportive message as shown in the examples below:

> We have not heard from you. Is everything OK?
>
> Student D: it was good to see you on Thursday but you have been ever so quiet online. Are we somehow failing to include your contribution? Please join in?

Some students experienced problems in accessing the online environment as a result of pressures of work, caring responsibilities, problems with technology, or confusion about dates. This is illustrated below:

> I am so sorry that my logistics activity is so late. I have been abroad on business all week and only got back late last night which means that I have not had time to look at my e-mails this week. I have however completed it and submitted it today.
>
> Won't be around for 2 weeks. Going to Poland – work. Will come online if I can. CU
>
> Up to last week it was difficult with my husband working overseas, looking after life with two little girls. Now he's back I am hoping to have extra time and energy for the course
>
> I am sorry for the delay but I have had a problem with my computer.
>
> I got my dates wrong and thought it was happening next week. Sorry. I'm really disappointed that I'm not going to be at the lecture tomorrow. I thought the lectures were every two weeks. Received my e-mail tonight to remind us about tomorrow's lecture but it is too late to cancel work tomorrow! Could someone update me what happens tomorrow. I do not want to fall behind. Hope tomorrow goes well, disappointed I can't make it.

In summary, these findings present the students' experiences in terms of module structure, presence and absence, and also problems in accessing the online site and taught module. They are analysed in detail in Chapter 7.

6.7 Mentoring experiences

In this study, the student and mentors experience of mentoring was explored using data collected in the mentoring evaluation process, online discussion

group areas as well as the interviews with two students and mentors. As stated in 5.5.3, when I analysed the data relating to mentoring experiences, I found themes that did not match the variables in the framework. However, I did find four themes that 'jumped out at me' as they occurred in each of the different data sources and they were sometimes associated with strong emotions. The four themes are: methods of communication between mentors and students; presence and absence in e-mentoring; structure of the mentoring process; and barriers to mentoring.

In the context of e-mentoring, each pair was provided with a private discussion board and chat room, and they were also provided with access to generic mentor and mentee discussion boards. 43 mentoring pairs were established and their usage of the iCohere site is illustrated in Table 6.6. These figures indicate that the majority of pairs never used the iCohere system for e-mentoring.

Table 6.6. Use of iCohere mentoring system by mentoring pairs

	Number of mentoring pairs using the system	Number of mentoring pairs who never used the system
Discussion boards	15	28
Chat rooms	5	38

In the project evaluation forms, the mentees and mentors all stated that their preferred methods of communication were personal or business e-mail, mobile phones, or private/business phones. Despite the project providing the resource of an e-mentoring site, this was clearly not utilised by the mentoring pairs. Explanations for this pattern of communications were addressed in the project evaluation process and the main reasons given were: ease of access to own e-mail system; didn't want to login to iCohere as it required inputting a User ID and password, quicker to use own systems, need to keep it as a private activity, i.e. separate from university and/or employer's systems.

One issue arose with Mentor pair C where there appeared to be a difference in preferred communication methods. In this example, the mentee complained that her mentor was not available to work with her and an analysis of the situation indicated that the mentor did come online at regular times and engaged with mentoring through e-mails and discussion boards but the mentee ignored suggestions for chat room sessions which were the preferred means of communication by the mentor. This example suggests a mis-match between preferred online communication methods and the mentee clearly preferred asynchronous tool while the mentor preferred synchronous tools. This suggests a lack of synchronicity between the working patterns of the mentor and mentee.

The mentoring process followed a developmental cycle illustrated in Figure 3.4 and this is presented in detail in Allan, Craig, Loureiro-Koechlin and Robinson (2007) who suggest that mentoring pairs moved through all or part of this cycle using a combination of online and/or face-to-face meetings. Pairs that

moved to the development stage of the cycle reported that they were satisfied or very satisfied with mentoring. In contrast, some pairs did not progress beyond the meeting stage. The frequency of contact between mentees and mentors varied and included weekly, fortnightly, monthly or intermittent contact. Five different patterns of contact were identified from the mentoring evaluation feedback data:

- Regular contact throughout mentoring process
- High levels of contact at the start of mentoring process which then drops to intermittent contact
- Low levels of contact at start of mentoring process rising to high levels of contact towards end of process
- Intermittent contact
- Mentoring process never got established.

In addition, some mentees and mentors stated that they would like to stay in contact with each other after the formal end of the mentoring process while others said that they were unlikely to remain in contact.

Students and mentors described their mentoring experiences both in the mentoring evaluation process and also discussion group messages. For example, Student V, who described herself as very satisfied with her mentoring experiences, provided a vivid description of her mentoring experiences in the mentoring evaluation process:

> I think that in the beginning the relationship was warm but professional but as we got to know each other, it became friendly and relaxed. I think that talking on the phone after the first introductory e-mail and then meeting my mentor [face-to-face] helped to 'break the ice'. I think that it is nice to meet the person, as at the time, I did not have a photograph of my mentor so did not know what she looked like. Both of us 'designed' the mentoring process. We did not have anything formal set up. However I used to tell my mentor what I was doing and ask her for her input when necessary and she would comment. I was aware of the fact that my mentor was 'on the road' 4 days a week and so did not become concerned if we did not have weekly contact. I did try and e-mail her every week an she did the same whenever she could. When I needed help with my PowerPoint presentation we were in daily contact.

The online discussion groups shared by the students provided an insight into their mentoring experience and indicated that issues arose for some students with respect to the presence or absence of their mentor. This is reflected in Thread D:

Example Thread D

Cohort 1. Students discussing mentoring in their general discussion board.

> Got an email from my e-mentor. She gave me a brief intro of herself. I replied doing the same thing. That was last Tuesday and have not heard from her since. Not sure if I scared her ☺ (Student T)
>
> **Response** Do not worry too much if you do not hear from your e-mentor as often as you think you should. I have only heard from mine twice – but I do not worry as I know that she is a very busy lady.
>
> (Student S)
>
> **Response** Thanks for that. I should not worry. My e-mentor actually contacted me by email on Friday. She is indeed busy as she is on her way to China. (Lucky for some!!) (Student T)
>
> **Response** What a coincidence. My e-mentor went off to China and I have not heard from her!!!! (Student F)
>
> Am disappointed to find out that my mentor has not responded to my invitation. I posted my e-mail Wednesday night and it is now Thursday night yet no acknowledgement. (Student R)
> **Response** I don't think I'd be worrying too much – still early days. Maybe they haven't picked up your message yet. I think we have to respect that maybe the demands of their work will take priority over us. No matter how committed they are to the EMPATHY project.
>
> (Student A)
>
> **Response** I think you will have to give them time to reply. It is always possible that someone is working away from their desk and doesn't have access to e-mails for a couple of days. If anyone hasn't heard from their e-mentor by the 22 March then I will chase this up but for now I'd give them some time to come on-line.
>
> (Project leader)

These examples illustrate that some students expected an extremely quick response from their mentor and they expressed their concern when this didn't happen. Other project members offered their support and suggested that they need to give their mentor time to respond. Some of these examples indicate that the students were concerned about the lack of response from their mentors and, at the same time, some mentors expressed concern about making contact with their mentees as illustrated in the following quotations.

> We had a very limited amount of e-mail exchanges where she felt the demand of the course was too much. I tried to encourage her to continue which she did. But she no longer communicated with me. I set the pace and content of e-mails but it fizzled out after a few weeks.
>
> (Mentor H)

> I suspect that L wasn't sure how a mentor could help her, or what to expect. For my part, I was wary of being too bossy. Our contacts were very infrequent and I developed a routine of asking her to respond and she developed a routine of not responding. (Mentor D)

Linked to the concept of developing a communication process via e-mail, I identified the apparent importance of developing a routine. Some mentoring pairs did not appear to manage to establish a working routine as indicated in the example of Pair A where the there were ongoing issues about making contact with each other ad establishing a mentoring process:

> I contacted my mentor by private email over a week ago, and more recently through the chat room allocated to us in iCohere, but I've yet to have a reply. Do you happen to know if she may be on leave, away on business or similar? (Student N)
>
> **Response** Hi, I will check up and get back to you via private e-mail. She may be away on business. (Project leader)

Once the mentor and mentee made e-mail contact with each other then the mentee requested an online meeting with her mentor who responded by providing four alternative dates or times. The mentee did not respond to this message for 10 days by which time the proposed meeting times had gone by. The mentor then responded by offering some additional times for an online meeting plus possible times for a face-to-face meeting. The mentee did not reply for 12 days and the meeting never took place. In her project evaluation form the mentee complained about 'my absent mentor.' The mentor was clearly offering her availability to work with the mentee and restricted this to set times and dates. In contrast, the mentee wanted her mentor to be available to her in a much more flexible manner. In her evaluation form the mentor stated:

> Our relationship was difficult. She rarely seemed to access the system. We never resolved issues about meeting and I constantly seemed to offer R opportunities to meet – online or F2F – and she sabotaged them. She did not appear to be committed to e-mentoring. She

> seemed to want me to be available 24/7. I offered her lots of opportunities to contact me/meet. She rarely took them up. I was disappointed and felt let down.
>
> (Mentor B who was paired with Student N)

Some students commented on the issue of routine communications with their mentors e.g.

> My contact with my mentor is not as regular as some peoples. I am hoping it is the beginning of the relationship rather than the end.
>
> (Student F)

> We did not develop a mentoring routine at all. Unfortunately, our communication was only in the first few weeks of the experience and then the communication seemed to fizzle out after a couple of weeks, which I think was due to busy schedules. (Student Z)

> My mentor was very detached. Our relationship was not so good. We contacted each other only 4 or 5 times. My mentor was very busy with her own work so she could not contact me. I sent her an e-mail last month but still I did not get a reply. (Student T)

These experiences contrast with those of students who had negotiated a mentoring plan with their mentor:

> I met up with my mentor tonight. It was great having a face-to-face meeting with her. We made plans on contacting each other and have set up a basic outline of what we both want to get out of this.
>
> (Student H)

> The mentoring was very routine-like. We only met twice, at the beginning and before I moved house. We communicated via personal e-mail, face-to-face and telephone. (Student F)

> We talked to each other about the areas I felt needed attention, such as my CV and interview skills and we dealt with each in turn. We talked about reasonable timescales fro completion of questionnaires and editing the CV and arranged to meet as each stage was completed. Our communications did follow a formal routine but we worked through a series of agreed tasks. (Student G)

Some students immediately appeared to be able to establish a working relationship with their mentor and this is illustrated in the following series of messages from one of the students to the rest of her cohort. This series of messages posted by Student X in the discussion group illustrates that the student and mentor had established a routine of two online meetings each week.

> I sent a message to my mentor on Thursday and have logged on today and she has replied. We have arranged a convenient time to meet up on line and start getting to know each other. I'm not quite sure what is going to happen next. I have read through the other information on line about e-mentoring, but this is my first experience of anything of this kind.
>
> I have met with my e-mentor on line and have had a really interesting discussion. She seems to be extremely enthusiastic about helping me with my career development. It feels quite strange to talk to a person that you haven't met on-line. I've never been one for chat rooms etc. But the first experience was good fun. I can't wait to get into a regular routine.
>
> Hi everyone, I've met with my e-mentor several times on line now and am really enjoying the experience. She has had loads of helpful suggestions on how to build my confidence to look at applying for jobs in this extensive field. She has set me work to do/ goals to achieve. It's really interesting to have someone who doesn't really know you, but is really on your side. We seem to get on well and have arranged a meeting for the future for me to speak to other women in various field within the industry, to see which would best suit me. I hope you are all enjoying the e-mentoring experience as much as me.
>
> I have had a fantastic experience with my e-mentor, not only has she been really helpful but has boosted my self belief and confidence. I have also gained the opportunity to view her work place and she has offered me a week's work experience within one of her departments, so that I can get a real feel for the industry.
>
> Our twice weekly meetings online have become a real highlight of my week, and the experience has really brought this course to life.....

Mentors reported how they had organised their mentoring activities e.g. Mentor D stated:

> We both agreed right from the start on the times and durations of our online meetings. Both of us came to look forward to them during the week. Topics were not initially planned but spun out form our initial contacts and the programme. There was also an opportunity to work on 'soft skills'. Time constraints affected our approach. Equally, we decided on an online approach because it gave us each time to think and consider before responding, and allowed us to go back over previous communications to see what we had discussed/agreed. I loved the iCohere discussion boards and chat rooms, as they gave time for thought! We contacted each other at least twice a week with e-mails in between.

These findings provide an insight into the complexities of a virtual mentoring process. For some students and mentors, the process appeared to work well as they established a routine and communicated with each other on a regular basis. Other mentoring pairs appeared to find it difficult to 'meet' each other

either through virtual or any other form of communication. They did not establish a working mentoring process and there was some evidence that there was a mismatch of expectations.

6.8 Summary

In this chapter, I present my findings and I use a range of techniques including charts, photograph, quotations and metaphors as a means of representing the temporal landscapes of the Business School and the project. I explore the temporal experiences of project members through concepts such as their temporal personality i.e. individual's experiences of time and how they relate to time. I then present the students' experiences on the module and mentoring experiences and these findings are organised around three themes: These themes were: temporal structure of the module; absence/presence; accessing the online site.

In Chapter 7, I use the findings presented in this chapter to respond to each of my research questions and I attempt to analyse them with respect to the temporal research and Giddens's structuration theory.

Chapter 7. Analysis of findings and discussion

7.1 Introduction

The aim of this chapter is to analyse the findings presented in Chapter 6 and to explore them in the context of contemporary temporal research and the theoretical framework, i.e. Giddens's structuration theory. The first five research questions provide a structure for this chapter and they are:

1. What are the temporal landscapes of the *EMPATHY Net-Works* project and the Business School?
2. What are the temporal experiences of the project members?
3. What are the relationships between the temporal landscapes of the project and its members?
4. How does the project temporal landscape help or hinder students' learning experiences?
5. How does the project temporal landscape help or hinder the e-mentoring process?

The final research question, which is concerned with the implications of these findings for facilitators and managers of e-learning and e-mentoring projects, will be dealt with in Chapter 9.

The classification of temporal variables (see Chapters 2 and 5) identifies three main categories plus a group of category spanning variables. The first research question is explored using the first two of these categories: conceptions of time; and mapping activities to time. The second research question is explored using two categories: conceptions of time and actors relating to time, plus the category spanning variables. The remaining three research questions are discussed with respect to my findings from the first two questions.

7.2 Temporal landscapes of the project and the Business School

This section focuses on the research question: What are the temporal landscapes of the *EMPATHY Net-Works* project and the Business School?

7.2.1 Conceptions of time

In the adapted classification of temporal variables (see Table 2.4), based on the work of Ancona, Okhuysen and Perlow (2001), there are three different groups of variables that relate to conceptions of time: types of time; socially constructed time; and also organisationally constructed time. I will start this section by exploring different concepts of time within the Business School and *EMPATHY Net-Works* project. In section 6.3, I indicated that the temporal landscapes of the university, HUBS and *EMPATHY Net-Works* project are underpinned by clock and calendar time. This approach is typical of Western educational establishments and it indicates that time is considered as discontinuous, uni-dimensional and it also involves taking a relatively short term approach (Adam 1995). My analysis of the data (completed project evaluation forms, discussion board messages and interviews) using NVivo resulted in no examples of other concepts of time e.g. event, timeless or harmonic world visions (Saunders *et al* 2004) or Aboriginal dreamtime. This is not surprising as the Business School and project are clearly located within a clock world vision.

The second concept of time is socially constructed ideas of time and these include work organisation (nine to five, workdays, work time and family time), celebrations such as Christmas and Easter, time as a renewing cycle, and time as linear continuity. This category overlaps with the previous section which considers linear time, uniform time, event time and also other time visions. It also overlaps with the third conception of time i.e. organisationally constructed time which is considered in the following paragraphs.

The third conception of time is that of organisationally constructed time and my starting point for considering the temporal landscapes of the *EMPATHY*

Net-Works project and the Business School was an analysis of the academic calendar and project schedule. As expected, I found that the academic calendar has an annual cycle starting in September and made up of two semesters and periods designated for research or other activities. This is reflected in Tables 6.1 and 6.2 and also Figure 6.1. This annual cycle roughly matches the pagan and also Christian cycles, with holidays at mid-winter or Christmas and the spring equinox or Easter, and also the agricultural calendar with a long summer break timed to meet traditional demands for labour at harvest time. This annual cycle demonstrates qualities of continuity and permanence as it can historically be traced back to medieval times, e.g. the annual cycles of services and activities within monasteries (see Chapter 2).

In contrast, the *EMPATHY Net-Works* project was not cyclical in nature as it was a unique project with a clear start and end date which did not match the beginning and end of the academic calendar. However, this project showed some features of continuity as HUBS had been running this type of project for 6 years and there was a sense that this was one of a series of project. Table 6.1 indicates periods of continuity in both the HUBS temporal landscape and also the landscape of externally funded projects.

In Table 7.1, I bring together the findings from Table 6.1 and integrate them with the findings from the example of the wall planner (Figure 6.1) and also comments made by colleagues in the Business School and the project team. These indicate that within HUBS and the *EMPATHY Net-Works* project there are periods with a fast working tempo and periods where the work tempo is much slower. During the interviews, colleagues in HUBS reported that they regularly experienced periods with a fast tempo which typically involved rushing from one meeting to another or lecture to lecture. In between these times, they caught up with e-mails, phone messages and student queries. They described their experience using expressions such as "no breathing space", "no gaps" and "racing from one thing to another".

One approach to exploring these different tempos in the academic year is to describe them as 'fast' and 'slow' time. Erikson (2001; 149) does not specifically define fast time but characterises it as involving a 'fragmented and

rushed temporality' the sense that 'time is accelerating.' Project members associated times when the tempo was faster with the demands of the academic calendar and particularly the teaching semester. However, it does appear that there are times of the year when the tempo is much slower providing more time for reflection. When asked about slower paced working periods during the academic year colleagues reported that June, July and part of August were the quietest times and this gave them time for research and scholarship activities, as well as taking a vacation. This pattern is visible in the wall planner (Figure 6.1) although there it extends from mid-May to mid-September. It is worth noting that slow time is 'not the same as a great amount of time (Eriksen 2001; 155) but it is concerned with taking the appropriate amount of time for an activity, e.g. spending time editing and re-working a written piece, reflecting on a particular learning experience. My own experience and that of colleagues is that it is during the slower paced times of the academic year that there is more time for reflection and development activities, and that these kinds of activities are often squeezed out during the busy semester periods.

Initially, I considered equating the times in the academic calendar when there is a fast tempo with 'fast' time and those when there is a slower tempo with 'slow' time. However, I realised that this is an over-simplification as it is possible that individuals experienced 'slow' time during the semester period and 'fast' time during the non-semester period. For example, I am currently taking 'slow' time to edit this work during an extremely busy semester period when I typically receive 20-30 e-mails an hour during the working day and have additional pressures of teaching, administration and management. However, I have learnt, rather like my colleague who turns off the light in her office, the importance of creating 'slow' time for myself and my work e.g. by working at home. My ability to create 'slow' time is linked to my role within the organisation as it provides me with power to be flexible over my working day.

Table 7.1 shows that there were two time periods when both HUBS and *EMPATHY Net-Works* team members experienced a fast tempo, i.e. January to May 2007, and also November to December 2007, and also one time period when both experienced a slower tempo i.e. mid July to mid August 2007. This

means that for about eight months i.e. half of the project period (August 06 – December 07) both HUBS and *EMPATHY Net-Works* were working in a similar temporal landscape and for the remaining eight months they were different. This finding is followed up later in this chapter as it has implications for individual team members who are active in both the project and wider Business School domains.

In Chapter 6, I present the temporal landscape of the Business School in Table 6.1 and also Figure 6.1. This links with the work of Brown (2005) who describes the concept of temporal horizon, i.e. the temporal boundary of an organisation or department. In the context of this study, the temporal horizons within HUBS tended to be focused on one of three points: end of semester, end of academic year, or start of the next academic year. The scheduling of specific events was built around the academic calendar which was driven by the end of the academic year and the graduation ceremonies. In contrast, the *EMPATHY Net-Works* project had a temporal horizon of the end of the project i.e. when the funding ended and a number of project workers employment contracts came to an end.

The next temporal feature described by Brown (2005) is temporal frame and this is the bounded period or structure within which an event or activity may take place. These may be characterised by features such as interval, pace, parallel, sequence, simultaneity, synchronicity, tempo or timing. Table 7.2 (based on the findings presented in 6.1) provides a summary of the different aspects of temporal frame and identifies them for HUBS, the project, the module and mentoring process. The contents of this table indicate that there are differences in the temporal frames for HUBS and also different aspects of the project. An important difference appears in the temporal frame of the module compared with the mentoring process. The module was structured along a traditional timetable but the mentoring process had no recommended

Table 7.1. Temporal landscapes of HUBS and *EMPATHY Net-Works*

Calendar	HUBS	HUBS – fast and slow tempos	EMPATHY Net-Works	ENW – Fast and slow tempos
August	Summer break Research Administration		Formal start of project Recruit team	
September	Administration Start of academic year		Planning and curriculum development	
October	Semester 1		Planning and curriculum development	
November	Semester 1		Planning and curriculum development	
December	Semester 1 Christmas break		Recruitment Christmas break	
January	Assessment period		Recruitment	
February	Semester 2		Cohort 1 Recruit cohort 2 & mentors	
March	Semester 2		Cohort 2 Recruit cohort 3 & mentors	
April	Semester 2			
May	Assessment period Administration		Cohort 3 Recruit cohort 4 & mentors	
June	Research and administration			
July	Research and administration		Cohort 4	
August	Research and administration Vacation			
September	Administration Start of academic year		Project evaluation, dissemination and reporting	
October	Semester 1			
November	Semester 1			
December	Semester 1 Christmas break		Formal end of project Christmas break	

Key

	Fast tempo		Slow tempo

Table 7.2. Summary of the temporal frames of the Business School and *EMPATHY Net-Works* project

Features	HUBS	*EMPATHY Net-Works* project	ENW – module	ENW – e-mentoring
Interval	Christmas & summer break Assessment periods	Christmas break	Each delivery of module treated as a separate event with own schedule.	Mentees/mentors selected their own intervals
Pace	Periods of fast and slow tempo	Periods of fast and slow tempo	Cohorts 1-3 pace set by weekly activities	Mentees/mentors set their own pace
Parallel	Teaching timetable Research activities	Delivery of module. Support of e-mentoring. Production of labour analysis report. Production of ESF reports	None noted	None noted
Sequence	Academic calendar. Schedule of modules. Individual module timetables. Annual research cycle. Annual administrative cycle leading to reports	Project plan. Schedule of modules. Start of mentoring process. Project research and evaluation activities including project conference. Completion of ESF reports	Individual module timetable	Mentees/mentors could establish their own sequence of activities OR use a suggested framework
Simultaneity	Delivering different modules at the same time, administration and research	Delivering the module or supporting the mentoring process to different cohorts	None	None
Synchronicity	Start of academic year. Christmas break	Start of academic year. Christmas break	None	None
Tempo	Annual cycle of fast and slow tempo	Project cycle of fast and slow tempo	Tempo increased at time of assessment activities	Mentees/mentors set their own tempo
Timing	Established by annual calendar	Established in project calendar/action plan	Established in module timetable (each cohort provided with a timetable).	Mutual agreement: weekly, fortnightly, monthly or intermittent.

timetable and mentoring pairs either established their own temporal frame or working practices or they were unable to achieve a regular pattern of activities.

In addition to the time frames indicated in Table 7.2, the project team also established their own weekly time frame and this was illustrated in Table 6.4. This table indicates that there were patterns of similarity (the working days of Tuesday to Friday) but also differences e.g. Monday was an extremely busy day in the Business School but a day for planning and preparation for project members. Although students and mentors sometimes accessed the e-learning or e-mentoring site over the weekend it was extremely rare for project team members to visit it over the weekend.

Finally, Brown (2005) describes the concept of time span relates to the length of the event or activity and this may be characterized using concepts such as: past, present and future, beginning/ and ending, continuity and permanence, and repeating. The time spans involved in HUBS and the *EMPATHY Net-Works* project are represented in Tables 7.1 and 7.2. Activities and events such as birthdays, team social events and the project conference provided pauses and interruptions to day-to-day activities.

7.2.2 Mapping activities to time.

Ancona, Okhuysen and Perlow (2001) identify a temporal category that is concerned with mapping activities or events to time and they identify five variables. Examples of each of these variables were found in the *EMPATHY Net-Works* project.

The first of these variables is single activity mapping which involves mapping a single activity to a continuum. In the context of *EMPATHY Net-Works,* single activity mapping can be applied to the whole project (this is

represented in Table 6.1), the module (as represented in the module schedule for each cohort) or e-mentoring (as illustrated in Table 6.2).

Repeated activity mapping involves mapping an activity that is repeated multiple times. In the context of the *EMPATHY Net-Works* project repeated activity mapping can be applied to the whole project which is one of a series of projects (see 7.1) or the module or e-mentoring (see Table 6.5). Within each module, individual learning and teaching activities were scheduled on a weekly basis in Cohorts 1 – 3 (see example schedule in Appendix B) and across three days for Cohort 4. I found no evidence of repeated activities in the e-mentoring process apart from the repetition of meetings (online, by phone or face-to-face).

Single activity transformational mapping involves an activity that as it progresses involves a transformational process. One example of single transformational activity is the project development cycle stages: planning and recruitment, delivery of modules and supporting the mentoring process, project dissemination and project closure (see Table 6.2). Important deadlines were those for completing the ESF reporting and financial claim forms. From the perspective of the students, the module and/or mentoring process resulting in them progressing to the next stage in their life and/or career, i.e. membership of the project led to a transformational experience. In the context of the module an important deadline, and one that is traditional in higher education, is that of the date for completing assessed work. These dates changed the pace of the activity as illustrated in Figure 6.2 which shows the number of discussion group messages posted in the iCohere system and this is supported by an example of a series of discussion group messages posted by students during a 24 hour period (see example Thread A in 6.6).

Multiple activity mapping involves the relationships between a number of activities and time, and an example of this occurred in the project with the phasing of the 4 cohorts of students and their modules and e-mentoring. This is represented in Table 6.4 and the shading indicates the multiple deliveries of the module and also establishing and supporting the

mentoring process. This table illustrates that from April to July multiple activities were taking place within the project. Multiple activity mapping raises the issue of the synchrony of activities or relationships between different activities. In Table 6.4 there are no examples of perfect synchrony but there are many examples of partial synchrony as illustrated by overlap between the activities of Cohorts 1 and 2 even though they were taking place at different times (daytime or evening). There is also the situation where there is no synchrony, i.e. no over-lap, and this is seen between the activities of Cohorts 1 and 4.

The final variable in this section is concerned with the 'relocation of time' and this take place if two activities conflict then one may be re-scheduled so that it takes place at a different time, or it may be redistributed. A number of examples of this situation arose in the project where one team member took on the work of another to help them when they had timetable clashes. Examples of 'relocation of time' took place in the collaborative group work where students regularly re-distributed work amongst each other as a result of the different constraints they experienced in their lives. This is illustrated in student discussion in Thread A.

The previous examples of mapping activities to time are all based on the underlying assumption that they take place within the same temporal map. The final category takes into account that different activities may take place in different temporal maps and suggests comparing different activity maps. This was actually carried out in Tables 7.1 and 7.2 which compares the similarities and differences between the temporal landscapes of HUBS and *EMPATHY Net-Works*. Common features include the synchrony of the Christmas and Easter breaks plus the start of the academic year. Each of these events or interruptions help to mesh activity maps and this is called 'social entrainment' (Ancona, Okhuysen and Perlow 2001: 517). These tables do illustrate differences between HUBS and *EMPATHY Net-Works,* and this suggests that they do not appear to be completely entrained with respect to pace, cycle and/or rhythms i.e. they have distinct temporal landscapes.

7.3 Temporal experiences of project members

This section addresses the research question: What are the temporal experiences of the project members? The final category in the schema of Ancona, Okhuysen and Perlow (2001) is concerned with the ways in which actors experience and relate to time.

I start this section by exploring the use of metaphors by project members. In Chapter 6, I present the small number of temporal metaphors found in the discussion group messages and in the transcripts of the interviews. These are summarised below in Table 7.3 where I categorise the metaphors following my earlier work (Allan 2007a). In this study, I found no examples of a conflict between natural study patterns and external factors, and I found that I needed to create a new category 'time and movement'. I also brought together examples of metaphors relating to challenges in managing time and lack of control as they described similar experiences.

These metaphors indicate that project members appear to have an underlying clock perspective, i.e. they talk about time as a commodity or resource. In addition, project members (students, tutors and team members) sometimes had difficulty in managing their time or felt out of control. The metaphors in the new category, 'time and movement,' such as 'time is marching on' indicate that project members had a sense of the timeline of the module or project. They were aware of time as a continuum moving from the past, through the present, to the future. I was only able to find one example of a 'time and movement' metaphor with respect to mentoring (in an interview with a mentor) and this perhaps indicates that the mentoring pairs did not have a strong sense of a timeline as students experienced in their taught module. However, further research is required in this area before any conclusions could be drawn from this observation.

Table 7.3. Classification of metaphors used by e-learners

Adapted from Allan (2007a).

Approach to time	Illustrative metaphors
Time as a commodity	I finally found some time after the big house move to look at last week (Student) Time is running out on this assignment (Student) Time is very short for me (Student) I have not given the time that the module required (Student) Not finding the time to get into the subject in greater detail (Student) I had loads of time(Student) We have to make up for lost time (Student) Today I've finally found the time and the courage to complete the self-assessment questionnaire (Student)
Challenges in managing time, Lack of control	I have taken on too much at once to enable me to devote the time the module required (Student) I'm a bit snowed under and can't keep up (Student) I was overwhelmed at first (Student) Time not being on our side, nah? I don't think we even tried to use our time well. (Student) My time was then much more demanded by, controlled by their needs..(Project worker) Pressures of time (Tutor) There is no breathing time (Tutor) No gaps (Tutor) I'm always racing from one thing to another (Tutor)
Conflict between natural study patterns and external factors	None found.
Time and movement	Time is marching on (Student) Time has flown by (Project worker) Running at our own rhythm (Project worker) I get the impression that it flowed, it flowed (Mentor) I am now up to speed. I've sorted out the technical problems with C's help. (Student) Time is marching on (Student) I could dip in as and when I had time (Student) I know I'm jumping ahead here... I'm like a train once I get started it's hard to slam on the brakes. I wanted to know about the Personal Development Plan. Are you going to tell us about it on Thursday? Just checking. (Student) The project did seem very busy when I first arrived. I had to hit the ground running. (Project worker)

Brown (2005) identifies a series of categories or dimensions for exploring time. The first dimension is the 'horizon' which provides a container or boundary. Interviews indicated that different project participants presented different temporal horizons and these are illustrated in 6.4 and 6.5, and summarised in Table 7.4. The subjective experience of the project members is presented in Chapter 6 using quotations and Table 7.4 helps to summarise the variety of individuals' temporal horizons and how they appear to be linked to their personal situation including their involvement in the project, their employment and their private lives. For example, the temporal horizon of project workers indicated a focus on the end of the project while for students and mentors it was the end of the module/e-mentoring, work related or personal events.

Table 7.4. Temporal horizons of different project participants

	Classification of temporal horizons				
Participants	End of academic year	End of Project	End of module and/or e-mentoring	Work-related (context other than university)	Personal
Project Leader	✓	✓	✓		✓
Project worker A		✓	✓		✓
Project worker B		✓	✓		
Project worker C		✓	✓		
Project worker D		✓			✓
Tutor A	✓				
Tutor B					✓
Student A			✓	✓	✓
Student B			✓		✓
Mentor A				✓	✓
Mentor B				✓	✓

Bluedorn and Standifer (2006) introduced the concept of temporal depth and this refers to the distances into the past and future that individuals think about things. Findings from the interviews indicated a range of temporal depths. Again, there appears to be a link between temporal depth and type of employment and three project workers identified a temporal depth ranging from one year ago to the end of the project. Other people's temporal depths linked to their current personal situation, e.g. pregnancy and birth of the child, or their personal preferences meaning that this category may overlap with that of a timescape which is explored later in this chapter.

Another variable in this category is that of 'novelty of time' (Butler 1965) which refers to the perception that something new different or unique is taking place. An example of this time perception takes place if an individual or team is carrying out a task for the first time. Examples of this variable were found with respect to: the project workers and tutors approaches to Cohort 1; Project worker B reported this effect the first time that she wrote a skills report for a student; and two mentors who talked about their first contact with their mentees. For both Project worker B and the two interviewed mentors these experiences were linked to feelings of anxiety.

Temporal personality or timescape (Adam 1998) is the characteristic way in which someone relates to time. The findings relating to temporal personality are presented in 6.4 and 6.5, and they are summarised in Table 7.5. Concepts included here are sense of time, perception of time, and temporal focus. This summary provides an indication of the range of temporal personality preferences identified by project members.

Westenholz (2006) identifies four time identities: clock timers; invaded clock timers; task timers; and blurred timers (see Chapter 2): clock timers who are only available for institutional work when they are actually in the office during standard office hours; blurred timers who don't have a clear demarcation between work and leisure time but they are available for work both during standard office hours and also outside of these hours i.e.

in their 'leisure' time; task timers who are available and organise their working hours to complete their tasks; and the invaded clock timer who distinguishes between work and leisure time but are available for work

Table 7.5. Timescapes of project members

Participants	Temporal orientation			Temporal identity
	Sense of time	**Perception of time**	**Focus on past, present or future**	
Project leader	Normally arrives a few minutes early	Clock	Present	Invaded clock timer
Project worker A	Arrives on time	Clock/cyclical	Present/future	Task timer
Project worker B	Arrives on time	Clock	Present/future	Task timer
Project worker C	Frequently a few minutes late	Clock	Future	Task timer
Project worker D	Normally arrives a few minutes early	Clock	Present/future	Clock timer
Tutor A	Arrives on time	Clock	Past/present/future	Invaded clock timer
Tutor B	Frequently arrives a few minutes late	Clock	Past/future	Invaded clock timer
Student A	Arrives early	Clock	Present/future	Clock timer
Student B	Arrives very late	Clock	Future	Clock timer
Mentor A	Normally on time	Clock	Present/future	Clock timer
Mentor B	Normally late	Clock	Present	Blurred timer

during their leisure time. The findings presented in Table 7.5 link with the ideas of Westenholz (2006) who suggests that these differences in time identities or visions are linked to employment status e.g. all the clock timers and invaded clock timers were in permanent employment with the

exception of Project worker D who was not reliant on her income from employment and worked for personal and social reasons. All the other project team workers were task timers and they working on a contract basis as temporary employees.

One issue identified in the findings concerns how individuals felt that they could control or manage their own time. This is demonstrated in two metaphors used by students in their online discussions: "I'm a bit snowed under and can't keep up"; and "I was overwhelmed at first" and further examples are given in Table 7.3 in the category of Challenges in managing time, Lack of control. These findings are not easily placed in the adapted classification of Ancona, Okhuysen and Perlow (2001) which does not include variables concerned with individual perceptions of managing time or lack of control.

The following quotation illustrates a situation where the project worker felt that she had to put someone else's needs first.

> Once the students started, even from when we started to recruit them my time was then much more demanded by, controlled by their needs. So, although everyday I would set out with a plan of what I wanted to do that day, and how I managed my time that day, it was often interrupted and had to change because there were things that would happen which would then become a higher priority. (Project worker A)

This example links with the work of Davis (1990) who talks about 'process time' and 'needs-oriented' responses in women's lives (see Chapter 2). In contrast, one of the mentors reported that she managed her involvement in the project by only accessing e-mails relating to the project or the iCohere site during her lunch hour several times a week. She said that she had been anxious about the potential time demands of mentoring on her work and family life and had decided to restrict it to these times. In her evaluation she stated that this approach had worked well for her.

In addition to the variables that fit into their three categories (conceptions of time; mapping activities to time; and also actors relating to time),

Ancona, Okhuysen and Perlow (2001) also identify three variables that spanned these categories. These are monochronic time, polychronic time; and banana time.

Monochronic working relates to people who prefer to engage in one activity at a time. One member of the project team and one of the tutors expressed a preference for monochronic working although both commented that it was often difficult to achieve. I observed extensive evidence of polychronic working or multi-tasking with three members of the project team. Frequently, when I visited their office they would be engaged in conversation with each other, taking part in a virtual chat or messaging session, and/or sending and receiving text messages. These all appeared to be taking place at the same time. Polychronic time also refers to mapping multiple activities on a temporal continuum i.e. these activities take place at the same time rather than sequentially. This aspect of polychronic time was dealt with earlier in this chapter (see Table 6.5).

The issue of monochronic and polychronic working is very relevant to online working. Team workers tended to log into the iCohere for the whole day and this meant that they were essentially 'available' to students and mentors, and so they were involved in polychronic working as they shifted their attention from their desk-based work to responding to students or mentors. This caused some tensions, e.g.

> Once we were in the module, if I was logged into the system, which I tried to do a lot, so I was visible, but that meant, yeah, students would, whenever they wanted call on me to have a [virtual] meeting and if I was online expected me to be available and that meant often that, you know, they could take up quite a lot of time. Which I might otherwise have, you know, been planning to spend on something else, so it was very much led by their needs.
>
> Project worker A

The final variable considered in this section belongs to the group of category spanning variables and it is the concept known as 'banana time' (Ancona, Okhuysen and Perlow 2001). This term is used to describe an event or intervention by workers to break up the monotony of their working life or to make an unbearable situation more acceptable.

Examples from the project include birthday celebrations, evening meals, and also time spent looking at entertaining videos on YouTube or sending each other e-mails that contained jokes or interesting images. I was unable to find any examples of project team members creating interventions to make an unbearable situation acceptable but my role as project director may have meant that they were hidden from me.

7.4 Temporal landscapes of the project and its members

This section tackles the research question: What are the relationships between the temporal landscapes of the project and its members?

The previous sections highlighted the complex nature of the temporal landscape of the project and its wider context, the Business School and they illustrated the rich temporal lives of individual project members. In this section, I will explore the relationships between the temporal landscapes of the projects and its members using Giddens's (1979) structuration theory (see Chapter 4 and Figure 4.3).

Giddens suggests that agents draw upon their knowledge of their context when they make decisions or carry out any actions. The link between structure and agency can be explored with respect to the temporal landscape of the project. As *EMPATHY Net-Works* project workers, we created a temporal landscape for the project and this is summarised in Table 6.2. This project temporal landscape was developed as a result of the interplay between our interpretative schemes regarding: our roles and positions within the organisation and project; the context i.e. the Business School, ESF projects, designing and delivering taught modules and mentoring programmes, as well as our approaches to negotiating the administrative structures of the university. This is evidenced by the similarities in the temporal landscapes of the project and Business School and these appear to be underpinned by similar organisational approaches to time (see Table 7.2 and 7.3). This means that our project plan was both enhanced and limited by our interpretive schemes, e.g. they were framed in similar ways (see Table 7.3). However, these plans were also limited by

individual interpretive schemas. I found it difficult to identify these limitations. This is because as both project leader and researcher, my interpretive scheme is limited by my knowledge and beliefs, and also my temporal personality and timescape which informs my interpretive schemas.

The analysis of the organisational construction of time and the summary presented in Table 7.3 indicates similarities and differences between the temporal frames of the Business School, *EMPATHY Net-Works* project, the taught module and the e-mentoring process. Essentially, the temporal frames of HUBS, the project and the module were structured according to traditional concepts of clock and calendar time, and were built around a linear timeline and they demonstrate continuity and discontinuity. In contrast, there was no standard temporal frame for the e-mentoring process and mentees and mentors developed their own frame. The findings indicate that individual mentees or mentors engaged in either all or part of the mentoring cycle (see Figure 3.4). In other words, they used their own power and facilities as a means of owning their mentoring process and choosing whether or not to engage with it.

The students used iCohere extensively as part of their taught module (see Table 6.5) and this e-learning site was constructed by the project team using their interpretative schemas about learning and teaching on postgraduate modules. Consequently, the construction of the site and the delivery of learning activities (including assessment) was dominated by the norms and protocols used within HUBS and the project. It also replicated traditional education practices, e.g. the discussion boards and learning resources were organised by weeks of the module. In contrast, the mentoring pairs made little use of iCohere (see Table 6.6) and they used their own resources (e-mail or mobile phones) rather than those of the project (iCohere). Consequently, the choice of communication systems in the mentoring process can be viewed as the mentees and mentors enacting certain behaviours which meant that they used their own power and facilities as a means of owning their mentoring process

rather than being dominated by the systems or procedures presented by the project team.

In this section, I will focus on two aspects of individuals' subjective experiences of time. The first of these relates to project members' temporal horizons and their temporal identity, and this was considered in Tables 7.4 and 7.5. There was a clear distinction between project members on a temporary contract of employment and those with permanent contracts or who were not financially reliant on their income (Project worker D). The former had a temporal horizon at the end of their project and they were task workers, while the latter group were invaded clock timer, clock timer or blurred timer. This provides an example of the impact of the organisational power over individual temporal lives. Individuals on permanent contracts presented a wider range of temporal horizons and identity, and one explanation for this finding is that they have more power over their own lives. This is in contrast with colleagues on temporary contracts whose horizons were limited by the end of their employment contract. Participation in the project also appeared to have an impact on the time horizon of Student A. She said in her interview: "the module has made me think ahead. I normally only think about 12 months ahead but the module has made me think further. It's made me put some plans in place that will take perhaps 2 or 3 years to complete. And I think that's a positive thing. It was a mixture of the module and mentoring. It made me look at where I am and seriously make some choices, instead of just expecting things to unfold."

The second example is that of polychronic time. I have selected this as an example as I was curious about the differences in working practices between Project workers A, B and C, and also Project worker D and myself (see 7.3). There are a number of explanations for these differences. The first is that it is a generational difference i.e. Project workers A, B and C are all at least twenty years younger than either Project worker D or me. The second possible explanation is that Project worker D and I have both internalised similar interpretive structures about working in organisations, i.e. we differentiated work and leisure time, and

didn't normally engage with leisure activities such as texting friends in work time. In this situation, we viewed our time as belonging to HUBS during standard working hours while our colleagues were more flexible about their use of time. In terms of the power and domination, this suggests that Project worker D and I were dominated by our perceptions of the (unstated) rules and regulations of the organisation while the other project workers exerted their own power to manage a range of activities during their working day.

Another approach to explaining this observation is through Giddens's concept of 'distanciation'; the idea that we carry our social world with us, irrespective of time/space (Giddens 1984). Land (2008) illustrates this point with the example of social networking media such as Facebook or Myspace which enable individuals to access their private social world and their educational institution from the same physical location regardless of where they are in the world. Time/space distanciation depends on social relations which are organised around presence/absence in virtual and also the physical world. In the context of this research, it is possible that the project team members who multi-tasked and engaged in polychronic time (Project workers A, B and C) were particularly comfortable with spanning the boundaries of work and their social lives, while Project worker D and myself were less comfortable and tended to work in monochromic time.

7.5 Student learning experiences on the taught module

This section focuses on the research question: How does the project temporal landscape help or hinder student learning experiences on the taught module?

The first of these themes relates to the temporal structure of the module and, in terms of the adapted scheme of Ancona, Okhuysen and Perlow (2001), this fits into the sub-category that is concerned with organisational concepts about time. The next two themes (presence and absence, and

barriers to accessing the online site) appeared to be important to the students' experiences in the module as they arose as issues in both the discussion group messages and the project evaluation process. I was unable to code the second and third themes using the classification scheme. These three themes are explored in turn.

The project temporal landscape appeared to help the learning processes for some students in a number of ways. At a macro level, the delivery of the module to each cohort was scheduled to fit into traditional educational schedules and holiday periods such as Christmas and the Summer period. Cohort 2's taught module extended over the Easter period and included a break. This approach helped students to fit the module into other aspects of their lives e.g. caring responsibilities. Students had a choice of cohorts as they could study: on-campus in the daytime or evening over a 12 week period; in Grimsby or via e-learning only over a 10 week period, or in a three day intensive. This level of choice meant that students could select their cohort to suit their own temporal needs. Within each module, the pace was established by the project team based on their own interpretive schemes about delivering a postgraduate module. This appeared to fit the needs of the majority of students who commented positively on the pace of the module as demonstrated by the following illustrative quotation: "The schedule of lectures and activities enables study to fit in easily with other commitments and support is always there when needed". In addition, the programme for each module was a traditional one (see example in Appendix B) and would have matched the students' expectations and interpretative schemes with respect to timetabling a module. Finally, the project schedule and the e-mailing out of weekly summaries of the module learning tasks was seen as very helpful by all students as reported in the project evaluation forms.

Students on the module experienced different tempos ranging from a rapid burst of activity at the time they were focused on their group assessed work e.g. see Figure 6.2 and Thread A which outlines a series of discussion group messages posted by one group over a 24 hour period as they were finalising their group report. This period contrasted with

slower paced work as illustrated in Threads B and C. One student commented on how much she enjoyed the 'buzz' of the intensive week of group work (see 6.6). The slower paced work provided opportunities for reflection e.g. Thread B. The development of a module with different patterns and types of interaction was identified by Dirckinck-Holmfield *et al* (2004) as being an important design feature for effective e-learning.

The project evaluation process did identify some temporal issues that hindered the student learning processes and these were due to competing temporal pressures of paid employment (12 students), setting up own business (1 student), and family or friends (18 students). Some students experienced temporal pressures as indicated by their use of the following metaphors: "I'm a bit snowed under and can't keep up"; "I was overwhelmed at first" (see Table 7.3 for additional examples). There was a small number of students in each cohort who found the hand-in date for the assessed work difficult to achieve and individual hand-in dates were negotiated for these students. The project team were able to operate with much greater flexibility over hand-in dates than was common practice within HUBS. In the context of Giddens's structuration theory, this may be viewed as the project working with a slightly different interpretative scheme, with respect to the concept of assessed work, and that we interpreted the rules and regulations of the temporal aspects of assessment in a more flexible way than HUBS. Through the process of negotiation with individual students we developed our own norms for the handing in of assessed work and, as project leader, I sanctioned this change. When this issue was discussed at the level of HUBS then I used the argument of ESF targets to legitimise my actions. This flexible practice was then accepted as legitimate by HUBS.

On the taught module, students communicated with each other through the taught university-based sessions, through the discussion boards in iCohere and also by private e-mail, text and phone conversations. They very quickly adapted to online work and regularly orgnaised virtual meetings with each other. They kept in touch with each other about their availability in the face-to-face workshops and also the online site. The following quotation reflects a typical posing in iCohere: "I didn't make the

session due to illness. See you next week"; and "Just to let you know I am on hols til Friday so don't worry if you don't hear anything from me this week. I'll post my section and catch up at the weekend". These messages did not appear to raise concerns from other students regarding the availability of their colleagues. However, if a student was absent from the online environment for more than a week then another student typically posted a supportive message e.g. "Student D: it was good to see you on Thursday but you have been ever so quiet online. Are we somehow failing to include your contribution? Please join in?" This finding is relevant as it indicates that in their taught module students appeared quite comfortable with their colleagues not being available at times. This issue will be picked up in the next section where a different pattern emerged with respect to the mentoring process.

Some students experienced problems in accessing the online environment as a result of pressures of work, caring responsibilities, problems with technology, or confusion about dates (see 6.6). This is illustrated by quotations such as: "Won't be around for 2 weeks. Going to Poland – work. Will come online if I can. CU"; and "I am sorry for the delay but I have had a problem with my computer." This illustrates the complex balancing processes that many students carryout in their lives and it perhaps illustrates the importance of providing a flexible learning experience.

In summary, the project temporal landscape appeared to help student learning experiences on the taught module as it was structured using a familiar framework. Factors that hindered the students' experiences were associated with temporal pressures external to the project and also some students experienced technical problems. The issue of availability in the online environment did not appear to hinder the students' learning experiences.

7.6 E-mentoring experiences

This section considers the research question: How does the project temporal landscape help or hinder e-mentoring experiences?

Table 7.3 illustrates that the temporal landscapes of HUBS, the *EMPATHY Net-Works* project and the taught module were very similar and were characterised by clock time, a calendar or project plan, and schedules. Unlike the taught module, the project team did not present or manage the mentoring process and so we did not help to create a temporal landscape for mentoring, unlike the one we developed for the programme. It is possible that as mentees and mentors have internalised traditional educational approaches to time, e.g. the annual educational calendar, timetables and daily schedules, then this lack of a mentoring schedule would not have matched their interpretive schemes. In addition, as mentoring was a new experience for many of the participants then they did not have previous mentoring experiences or resources to draw on. One of the implications of this finding is that mentoring or e-mentoring projects need to provide more detailed guidance and support to both mentees and mentors at the early stages of the mentoring process.

In the project evaluation process, most mentees and mentors said that they thought 3 months was too short for mentoring. The three month mentoring period was allocated by the project team and the selection of this time period was influenced by the timescale of the project and the needs of the funding body i.e. we had to complete the project and achieve our targets within a set time period. This is perhaps an example of where the wider organisational factors dominated the mentoring process and, in some cases, appears to have limited it.

In the project documentation we recommended that the mentoring process lasted for up to three months and that at the end of this time mentoring pairs should decide for themselves whether or not to continue. However, the majority of students interpreted this as meaning that the mentoring process was only scheduled to last for three months and that

there was no possibility of it being extended. One way of exploring this finding using structuration theory is that the project team gave authority to the idea that three months was an appropriate length of time for mentoring and this was accepted as a norm by the mentoring pairs and so became part of their interpretative scheme for mentoring.

For some mentoring pairs, the mentoring process appears to have been adversely affected by the project team not providing more guidance about the structure and temporal aspects of mentoring. This situation arose with the small number of mentees and mentors who reported that they were not satisfied with the mentoring process (see 6.7). The people who were not satisfied appeared to have had difficulties in establishing a mentoring relationship and in developing a regular pattern of meetings with their mentor. This contrasted with the experience of mentees and mentors who reported their experiences as being successful and typically they had established working patterns and routines such as contacting each other on a regular basis.

The second aspect of individuals' temporal experiences relates to the issue of presence or absence (Friedland and Boden 1994). The concept of presence and absence is complex. The messages posted about absent mentees or mentors were different in tone to those posted in the module discussion groups where students appeared neutral about the absence or presence of their colleagues e.g. Thread A. The issue of absence of mentees and mentors appeared to raise some emotions as illustrated in Thread D (see 6.6). In the context of the mentoring relationship there appear to be a number of explanations for this finding. Some students were clearly concerned by the absence of their mentor, e.g. "Not sure if I scared her ☺" (Thread D), and they seemed to expect very rapid responses from their mentors even though they were aware that the mentors were senior managers and managers in the LaSCI and likely to have demanding jobs. My sense is that for some of these students it was not just a matter of the mentor being 'unavailable,' i.e. not able to respond to their e-mail as they were off-line, but also that they were psychologically absent too e.g. "My mentor was very detached. ..." For

other students, it was evident that they accepted that their mentor would be working away for a number of days and so not available for mentoring purposes. A similar pattern emerged from the mentors where some mentors complained that their mentee was unavailable e.g. "She rarely seemed to access the system" and also noted a lack of commitment "She did not appear committed to e-mentoring." In part, this could have related to some students not fully understanding mentoring and the mentoring process as indicated by one mentor: "I suspect that L wasn't sure how a mentor could help her, or what to expect".

Frieldand and Boden (1994) write about presence and absence without defining the specific ways in which they use these words. They write about: co-presence; and absence and presence in relationship to online and/or face-to-face communications. In the context of this project, the findings indicate that it is possible that some mentees experienced the absence of their mentors in two possible ways. First, as either the mentor not being available e.g. due to work pressures, and this was not associated with particularly strong feelings. Second, the mentee could interpret the absence of their mentor as meaning both 'not present in the site' and also psychologically absent. Further research is required to follow up this initial finding in more detail. One of the implications of this finding is that it suggests that it is important for both mentees and mentors to discuss their expectations with each other concerning their presence and absence in the mentoring process.

One interpretation of this finding is that some mentees with an 'absent' partner were distressed as they perceived their partner was withholding resources, e.g. their time and specialist knowledge, from them. This meant that the absent partner was perceived as 'more powerful' or controlling. Another explanation of this situation is that the mentee and mentor had different interpretative schemes in terms of virtual mentoring practices. Unlike traditional educational or training programmes, they had not had the opportunity to develop their own interpretive scheme. Mentors A and B both said in their interviews that one of their motivations to become an e-mentor was to learn about e-mentoring so that they could

introduce it to their own organisation i.e. they wanted to develop a new or changed interpretive scheme by working with an experienced project team. This is a possible example of the reproduction of developing practices about an innovative approach to learning and teaching.

Early work on virtual learning (see Chapters 2 and 3) indicates that there is an issue of trust in developing online working relationships and one of the underpinning features of these cases could be that the pairs had not developed sufficient trust or appropriate working practices and this meant that they could not negotiate an effective working relationship. In addition, it appears that some mentees and mentors had different perceptions about the meaning of a 'meeting' and this indicates different interpretive schemes. These appeared to relate to the organisational context of the mentor as individuals working in the LaSCI identified 'meetings' as anything ranging from text messages to face-to-face and this contrasted with the mentees who appeared to identify meetings as face-to-face, i.e. co-located events, or pre-scheduled chat room or phone meetings.

In summary, the findings from this section indicate that the project temporal landscape had an impact on the planned start and end of mentoring processes. Unlike the taught module, mentoring pairs were not provided with a detailed schedule of activities. Some mentoring pairs developed their own working practices and routines but others did not. The absence of a schedule or routine appeared to adversely affect the quality of the mentoring process. In addition, for some mentees the absence of their mentor from the virtual environment appeared to have been interpreted as the mentor being both absent i.e. not online, an also psychologically unavailable. Finally, differences in expectations between some mentees and their partners appeared to have a negative impact on the mentoring process.

7.7 Summary

The temporal landscape of the project is complex. The findings from this research indicate that there are many commonalities and some differences between the temporal landscapes of HUBS, the *EMPATHY Net-Works* project and the taught module. The mentoring process appears to have a distinct temporal landscape. This study indicates that individual project members have their own temporal personality or timescape, and this involves characteristics such as temporal horizon, orientation, depth and identity. Individual temporal horizons appear to be related to whether or not they have a temporary or permanent contract of employment.

The temporal landscapes of the project appeared to support students' learning experiences on the taught module as this was delivered using a temporal framework that was familiar to the students. Factors that hindered students' learning experiences related to temporal pressures external to the project. In contrast, the mentoring process was developed on the assumption that the mentoring pairs would establish their own working relationship and temporal landscape. The project team did not provide a detailed schedule for the mentoring process. Satisfied and very satisfied mentoring pairs stated that they regularly communicated with each other and developed a working relationship and working practices. For some mentees and mentors, the absence of their partner in the virtual environment created issues regarding their mentoring relationship and process. Some mentoring pairs did not establish a relationship or mentoring process, and their experience may have been limited due to the absence of a temporal framework for the mentoring process. It is possible that the mentees and mentors that were not satisfied with their mentoring experiences had different expectations and that they were unable to resolve them.

In Chapter 8, I will critically reflect upon my research methodology, the use of the classification scheme based on the work of Ancona, Okhuysen and Perlow (2001), and the application of Giddens's structuration theory. I

will also reflect on my timescapes during my work on this thesis. Finally, in Chapter 9, I will identify my contributions to knowledge, areas for future research, the implications of my findings for facilitators and managers of e-learning and e-mentoring projects, and conclude this study.

Chapter 8. Reflection

8.1 Introduction

The purpose of this chapter is to provide me with an opportunity to look back and reflect on my research. In this chapter, I critically reflect upon my research methodology, the use of the classification scheme based on the work of Ancona, Okhuysen and Perlow (2001), and the application of Giddens's structuration theory. I will also reflect on the impact of my temporal personality or personal timescape on this research. I also consider my temporal experiences during my work on this thesis and reflect on them in the context of my work-life balance and work as an academic in HUBS.

8.2 Representing temporal landscapes and personalities

I discussed the research methodology in some detail In Chapter 5 where I considered the concepts of credibility, transferability, dependability and confirmability. In this section, I want to stand back and reflect on the challenges involved in representing temporal landscapes and individual temporal experiences or timescapes. I have chosen this theme as I believe it underpins one of the main difficulties of researching in this area.

In Chapters 6 and 7, I explored and presented the temporal landscapes of HUBS, the *EMPATHY Net-Works* project, the module and the e-mentoring. I found that some representations e.g. the year planner (see Figure 6.1) provided a better 'feel' for the temporal landscapes than other methods e.g. the rather linear representations presented in Tables 6.1, 6.1 and 7.1. I found it extremely challenging to present both the rich detail of the temporal landscapes and also the overall patterns or pictures. In Chapter 6, I was able to present a detailed view of the temporal landscapes and the use of narrative e.g. metaphors, helped me to present a 'feel' for the temporal landscapes. This contrasted with the summaries presented in Chapter 7, e.g. Tables 7.1 and 7.2, which provide an overview.

One aspect of the limitations in the ways in which I could represent the temporal landscapes was due to the functionality of Microsoft Word and also my ability to use the word processing software. For example, the use of tables and portrait or landscape page layouts meant that my attempts to represent the HUBS and *EMPATHY Net-Works* calendars resulted in linear schemes framed by straight lines. In this way, I have reproduced a clock approach to time and one that is reduced to a rather simplistic overview. In terms of the temporal landscape, I have not managed to represent a detailed image within one representation but have built up a series of images presented in Chapters 6 and 7. I have been unable to create the equivalent of an Ordnance Survey map of a temporal landscape. However, the example year planner (Figure 6.1) does indicate some of the complexities of the temporal landscape. Consequently, the ways in which I have represented temporal landscapes is clearly a limitation of this work.

In contrast to the challenges of representing a temporal landscape using tables such as 7.1 and 7.2, I found that the language individuals used in their discussions with me revealed a rich and subtle appreciation of temporal aspects of both their context and their experience. This was evidenced by the enthusiasm with which people were willing to discuss 'time' and their ability to describe their experiences using everyday language and metaphors rather than the language used in the temporal research literature. Chapter 6 provides many examples of quotations that give an indication of their temporal experiences. In addition, the metaphors present in the data (see Table 7.3) give an indication of individual's experiences. Examples include: "time has flown by", "running at our own rhythm", "everything has been compressed", "I get the impression that it flowed, it flowed", "The project did seem very busy when I first arrived. I had to hit the ground running". However, these metaphors only illustrate individuals' perceptions of particular aspects of their temporal experience. In the context of the metaphor of an Ordnance Survey map, they indicate someone who is possibly focusing on the river but not seeing the mountain above it. As with the temporal landscapes, my attempts to illustrate individuals' temporal horizons (Table 7.4 and

temporal orientation (Table 7.5) resulted in a rather one-dimensional summary which does not completely accurately reflect the richness of individuals' experiences as reflected in their language including metaphors.

My attempts to represent temporal landscapes and personal timescapes follow conventional practices and research tradition in this area. In addition, it follows traditional practices in producing calendars even innovative ones such as *The Ecological Calendar* (Antenna 2008). However, this approach does impose a limitation on this work. A possible area for future research would be to explore different ways of representing temporal landscapes. For example, this could involve asking individuals to use images and artistic techniques rather than the spoken word.

Another issue that arises within this study relates to the challenge of exploring the temporal experiences of project members. My data comes from the project documentation, the iCohere system, and also individuals who were willing to be interviewed. The people who contributed their thoughts in the online discussion boards, completed evaluation forms and were willing to be interviewed and they all 'gave their time' to these activities. It is possible that other project members, including the six people who withdrew from the module on the basis of obtaining employment or promotion, actually had quite different temporal experiences to the people who wrote copiously in the online environment or on their evaluation forms, and who were willing be interviewed. Consequently, this study does not accurately reflect the temporal experiences of **all** project members. An area of future work would be to explore the temporal experiences of a whole cohort of students or mentors in much more detail.

8.3 Using the classification scheme

I used the adapted classification scheme of Ancona, Okhuysen and Perlow (2001) as a means of as a means of structuring my findings in Chapter 7. This classification scheme was developed as a result of an analysis of the variables used in a number of seminal research papers on time. The original purpose of this classification scheme was to identify and organise variables used in temporal research. I re-purposed this classification scheme and used it to help me to code and organise my data, and also present my findings.

My use of this classification scheme affected my research in three ways: it enabled me to methodically work through the data, classify and organise it; it facilitated creating a multi-faceted account of both temporal landscapes and individual timescapes; and it enabled me to shift my focus from the organisation (HUBS or *EMPATHY Net-Works*) to the individual.

The original classification scheme presented by Ancona, Okhuysen and Perlow (2001) did not cover all the temporal variables that I found in the research literature. Consequently, I expanded their framework (see Chapter 2, section 2.10 and Table 2.4). This helped me to explore different conceptions of time, and also different aspects of both temporal landscapes and temporal personalities. The three main categories (conceptions of time, mapping activities to time, and actors relating to time) and their sub-categories provided a framework which helped to structure my analysis. In addition, the category crossing variables also provided a way of structuring some findings. This structure helped me to manage the data in a consistent manner. In particular, my inclusion of additional sub-categories, e.g. the concepts of fast and slow time; and also organisationally constructed time, provided me with an expanded range of categories in which to explore different temporal concepts. One of the problems that I experienced with this expanded classification scheme was that some examples of narrative could be classified in more

than one category. When this was the case, e.g. the concept of clock time, then I have cross-referenced the item in a number of different categories.

I also found some temporal concepts that did not fit into the adapted classification scheme. Examples include: issues relating to presence or absence in the online environment; and also some metaphors relating to time e.g. time management and time and control, and also time and motion. This is not surprising as the original classification scheme was developed on the basis of an analysis of a number of seminal research papers and then I extended it on the basis of my reading of the contemporary temporal literature. The classification scheme represents a rather theoretical framework and so does not match the reality of individual's temporal perspectives and languages. In other words, the classification scheme does not represent the everyday language used by project members when they were talking or writing about their lives and experiences.

The classification scheme enabled me to create a multi-faceted account of both temporal landscapes and individual temporal experiences. However, as discussed in the previous section there are limitations in attempting to re-present temporal landscapes or individual timescapes using tables divided into categories and sub-categories. Other researchers on temporal issues, e.g. Brown (2005), have tended to focus either on one of the thee main categories (conceptions of time; mapping activities to time; or actors relating to time) or on a selection of sub categories from two or more of these categories. I believe one of the strengths of my work is that it considers the range of categories explored in the classification scheme. However, one set of categories that has not been explored in any depth in this work is that of world visions described by Saunders *et al (*2004) and discussed in Chapter 2. This is because examples of these temporal sub-categories were not identified in the data and this is not very surprising as the project was set in the context of a UK university that works within a clock temporal landscape. However, given that one project team member and some of the students came from other cultures then it is possible that their preferred time visions were not given

space within the project, module or e-mentoring. As higher education is an international activity then this is a potentially very important area for research and it is one that could be followed up after the end of this study.

The classification scheme includes categories that apply to organisations and/or individuals. In some cases, I found it difficult to decide how to classify a particular item. In these cases, I referred to the context of the example. I used the context of the statement, i.e. was the individual talking about their experience or making a general organisational comment, to help me decide how to classify each example. However, this means that there is a possibility that some examples may have been mis-classified.

An alternative approach to content analysis would have been to use *de nova* categories that arose from the data. However, this approach may have been more challenging in terms of identifying a range of themes. In addition, my own temporal perspectives would have possibly limited my ability to identify particular categories and may not have enabled me to develop such a multi-faceted picture. The issues arising from my temporal perspectives are explored later in this chapter. Finally, by adapting the classification scheme of Ancona, Okhuysen and Perlow (2001) I believe I have produced findings that build on knowledge developed by other researchers, e.g. Brown (2005), and this will help to ensure that this study is accepted as credible research within existing academic temporal communities.

8.4 Use of Giddens's structuration theory

Giddens's concept of duality of structure provided a theoretical framework for this study. In Chapter 4, I explain how I considered using Orlikowski's adaptation to take into account the role of technology. Her approach helped me to understand Giddens's work and also how to apply his ideas in practice. However, I decided not to pursue Orlikowski's ideas as her

main focus was on technology and although the *EMPATHY Net-Works* project used technology, e.g. through the use of iCohere, I found the technological issues did not appear to be a main theme in my exploration of temporal landscapes and the temporal experiences of project members.

In addition, I found that Giddens's basic concept of the duality of structure provided a useful framework for exploring different issues that arose in this study. The extension of this structure to include technology e.g. Orlikowskil's (2000) aspects such as technology as artefact and technology-in-practice was, I felt, beyond the scope of the current study. However, I acknowledge the value of Orlikowski's work and its potential value in further research where the focus included technology.

Giddens's structuration theory provided a theoretical framework for this work. It enabled me to explore aspects of agency and structure. I found this framework particularly helpful in providing some insights, e.g. that the presence/absence of mentees/mentors could be linked to issues of power, that I don't believe I would have considered without this theoretical framework. Within Gidddens's framework, I found the concept of interpretive schemes helped me to explain the different temporal perspectives evident within the Business School and project, and this is evidenced in my example of assessment hand-in dates.

One of the challenges in using this framework related to Giddens's use of the term 'structure' to mean the 'rules and resources' that act as 'common interpretive schemes in a particular social system' or 'memory traces' (Giddens 1984: xxx1). However, in the context of business education, the term 'structure' is often used to mean organisational structures and hierarchies rather than the 'rules and resources'. This difference in meaning meant that I continuously had to check my use of the terminology to ensure that I was using it consistently and in a manner that matched Giddens's approach.

I found it extremely challenging to link Giddens's work on structuration and time/space to this study. Eventually, I realised that Giddens appeared to consider that structuration theory could be used as an analytical and interpretive tool to explore a particular context that was located in a particular time and space, i.e. time/space was a 'container,' as well as an integral aspect of both structure and agency. In the context of this work, my case study is located in a particular time/space, i.e. 2006/2007 and in the space (virtual and physical) occupied by project members. In Chapter 7, I illustrated how aspects of temporal landscape and timescapes were both created by and affected structure and agency. From the perspectives of managers of e-learning and e-mentoring projects, this may appear to be rather a rather abstract point and one that perhaps appears irrelevant to everyday project management issues. However, from my perspective, using Giddens's structuration theory has enabled me to appreciate the interplay between structure and agency. Without this theoretical framework, my work may have been limited to an analysis from the perspectives of either structure or agency.

8.5 Impact of my temporal personality and perspectives

In Chapter 5, I explored the potential impact of my different roles as director of learning and teaching, project leader, mentor and researcher on the temporal landscape of the project and the experiences of project members. I was an integral part of the project and certainly helped to shape it. At the same time, as researcher I have been very aware of the ways in which both my multiple roles and also my values and beliefs would affect this research process. In addition, in this ethnographic case study, I am in the role of participant-as-observer. My multiple roles in both the project and research process raises the important issue of the impact of my positionality.

Goodson and Sikes (2003: 34) state "given that the researcher as person is already there, we must not pretend that it is possible to forget their personhood, their histories and all that that entails." My personal history

includes a childhood spent in catholic boarding schools where time was measured by bells and prayers. I have spent more than twenty years in the UK higher educational system and I have internalised the traditional temporal landscapes of this sector and also the internal temporal landscapes of the University of Hull. If this wasn't the case then I suspect that I wouldn't have become Director of Learning and Teaching within the business school or project director of *EMPATHY Net-Works* as both roles involve me working effectively within the temporal landscapes of the university and business school. In the words of Brown (2005), I demonstrate the characteristics of the 'flexible academic' who may be viewed as someone who has some control over the structure and organisation of their day. In the context of structuration theory, it perhaps indicates that my interpretive schemes match those of the organisation in terms of temporal working practices, and that I fulfil the norms required of 'the flexible academic' by the Business School and University.

In addition, I teach project management and this academic subject is underpinned by traditional ideas of clock or industrial time. As *EMPATHY Net-Works* project leader, I clearly shaped the project using my knowledge and experience from previous projects and also running academic programmes and modules. This means that my 'memory traces' or interpretative schemes are firmly embedded in traditional ideas about time and, I believe, that this it is virtually impossible for me to separate myself from these internal structures as they are an intrinsic part of me. In terms of my role as project leader for the project, I was given 'power' to manage the project funds and resources. Within HUBS I was trusted to carryout this role with relatively little supervision or interference by the organisation. However, the ESF exerted their power in terms of their reporting regimes and audit processes to ensure that I carried out the project in the manner detailed in the original project bid. One of the ways in which I experienced this power of the ESF was through the amount of time I had to spend on the reporting and auditing activities. In order to enable us to meet the ESF requirements I ensured that we delivered the project in accordance with their perspectives on managing the project paper trail. This in turn influenced the delivery of the module and e-mentoring as I had to make sure that we measured students' progress at

every stage and also the final project outcomes. Consequently, this provides an example of the duality of structure.

A potential problem area relates to my own internal temporal landscape and values and beliefs about time. My internalised approaches to time will have had an effect on both the *EMPATHY Net-Works* project and also this research process. In chapter 6, I describe my temporal horizons as being focused on the end of the academic year, the end of the project and the taught module, and also a personal horizon of completing this thesis and a house move. In addition, my temporal orientation or relationship with time means that I am normally a few minutes early for events and have a good sense of clock time, i.e. I can normally tell the time to within three or four minutes without looking at a clock. My focus is very much on the present and, in the language of Westenholz (2006), I am an 'invaded clock timer' as I distinguish between work and leisure time, and I am available for some kinds of work during my leisure time. My temporal landscape will have left its signature on the project and this is illustrated in the following quotation from an interview in which Project worker A compared me with the another project leader in HUBS as follows:

> I think there are big differences in terms of how the time has been structured and I think that's down to your and XXX's different styles, so that XXX was very particular about planning things very far ahead and liked to know that things were done in, in advance of when, you know well in advance of when they actually needed to be. Whereas, you know, sometimes things that we do on this project now might not be done quite as much in advance of when they actually needed to be. But they are still done in good time. I think it's just that XXXX and you have different timelines.
>
> Project worker A

This quotation indicates that both XXX and I have different temporal personalities and mine is more focused on the present while XXX appeared to be focused on the future. Consequently, my temporal personality will have shaped the project and also this research. However, the temporal landscape of the project was also shaped by the timescapes of individual members and at our regular project meetings we constantly negotiated and re-negotiated timeframes until everyone in the team was comfortable with them.

As I move towards the end of this thesis, I am aware that I will have shaped the temporal landscape of the project as a result of my interpretative schemes which, in turn, are shaped by the cultural norms in the business school, project management practices in ESF funded projects and also educational projects, as well as my personal and educational histories. This means that this research is clearly located within a particular temporal context and provides an illustration of the interplay between myself (as project leader), project members and our organisational contexts. Consequently, any attempt to transfer these research findings must be treated with great care particularly if they are explored in educational contexts with different time visions to the dominant clock time vision in UK higher education.

In addition to shaping the temporal landscape of the *EMPATHY Net-Works* project, I have shaped the research process and the production of this thesis. This has been underpinned by my temporal personality and, again, it is quite difficult for me to identify the impact this has had on the research. However, in the final section in this chapter, I explore my temporal experiences during this study.

8.6 My temporal experiences of working on this thesis

In this section, I will reflect on my experiences of working on this thesis and I will focus on three themes: balancing the temporal landscapes of work, the thesis and home life; working with different tempos; and issues of structure and agency.

I have been working on this thesis for three years and my starting point was an idea to research assessed group work. However, when I changed my work role in September 2006 and became leader for the *EMPATHY Net-Works* project I decided to change my topic to one that was located within my everyday work, i.e. I wanted to synchronise my research with my working life, as I believed that this would 'save time'. In addition, I

decided that I would 'go with the flow' and at very busy times during the academic year and the project I effectively put my thesis on hold for several weeks at a time. This meant that I was not managing conflicting demands on my time and energy, and it also meant that when I was able to focus on the thesis then I was able to work on it for days or half days at a time.

The residential weekends in Sheffield provided a welcome opportunity to meet with colleagues and to develop my ideas. One of the real benefits of these weekends was that they gave me 'time out' from my every day demands of family, work and study. Consequently, these weekends provided me with the opportunity to reflect on my work, explore new ideas and then move forward when I returned to my base. In other words, these weekends provided an opportunity for reflection or slow time.

I changed roles within the business school in October 2007 when I became Director of Learning and Teaching. In the first few months in this new role, I quickly realised that my experience of the organisational temporal landscape had changed. Each day I am bombarded by a challenging workload that is symbolised by waves of e-mails and phone calls, and I am also required to attend many more meetings. The pace of my work life has speeded up and although the temporal landmarks are the same as before, e.g. end of project, end of semester, or visit by auditor, it feels as if I have jumped from a steadily flowing river into a torrent of water that threatens to burst its boundaries at any minute. This observation has enabled me to understand that within an organisation the subjective experiences of an individual may vary depending on their positionality. This change in role has affected my work on this thesis in a number of ways. During the first three months, i.e. October – December 2007, I spent little time on my thesis although I was still working on completing the *EMPATHY Net-Works* project. My time for working on this thesis became more pressurised and I used a range of strategies, e.g. outsourcing the transcription of the interview tapes and booking one-to-one NVivo training, as a means of best utilising my time. In the context of structuration theory, this provides an example where I was able to use

EMPATHY project resources for 'my research,' i.e. I used my personal and role power as a means of utilising organisational resources. Once I settled into my new role, I found that I was able to manage my work-life balance to give me regular time to work on this thesis.

I found that I separated my work on this thesis into two types of activity each linked with a particular tempor: fast paced activities and slower paced or more reflective activities. Examples of the former include literature searching and working with NVivo, and these took place during the day and at work. I was quite comfortable doing these types of tasks and dealing with interruptions such as phone calls and people popping into my office. This is an example of polychronic time. In contrast, slower paced activities such as reflecting on my findings either took place in the evening at home and after my family had gone to bed, when walking the dog, or when I was travelling by train. In terms of Giddens's idea about distanciation, then I can see that my reflective activities took place when others were absent (e.g. they were in bed) or I was absent (from family or colleagues) and either in transit on trains or spending nights away in a hotel.

If I stand back from the current process of typing up this thesis and use the perspective of Giddens's structuration theory then I can see how my personal actions (agency) have resulted in me allocating my personal resources (time and money) to complete the EdD programme. This has meant that in the domination/power duality that I have felt complete freedom to follow my interests and to work within personal timeframes rather than those that may have been imposed by HUBS or the University of Hull. In addition, I used my agency as a result of my organisational roles to support this work e.g. the use of a transcription service to work on the interview tapes and also organising one-to-one NVivo training sessions. I believe that this enabled me to manage my work-life balance with relatively little conflict.

8.7 Conclusions

In this chapter, I critically reflect upon my research methodology and the challenges involved in attempting to re-present organisational temporal landscapes or personal timescapes. I demonstrate the limitations imposed by traditional approaches to clock time and the language of temporal research. I suggest that the rich language used by individuals helps to create vivid images of their temporal experiences.

I then reflect on my use of the temporal classification scheme, which was based on the work of Ancona, Okhuysen and Perlow (2001), and I suggest that this scheme has facilitated my consistent analysis of the data. It has also helped me to develop a multi-faceted picture of organisational temporal landscapes and personal timescapes. However, the variables included in this framework used the technical language of temporal research rather than everyday language. In addition, this framework did not cover all the variables or factors that affected the temporal landscapes or personal timescapes.

Despite the challenges involved in understanding and applying Giddens's structuration theory, I found that this framework helped me to shift my focus from structure to agency and *vice versa.* Structuration theory enabled me to understand the constraints of the organisational temporal interpretive schemes, and the comparison of the temporal experiences of students in the module and e-mentoring helped me to understand how these shared interpretive schemes also facilitate learning.

Next, I reflected on the impact of my temporal personality and perspectives on this research. I shaped the temporal landscape of the EMPATHY Net-Works project and the research process. This means that my findings from this study have a potential low level of transferability to other educational projects and this is discussed in the next chapter. Finally, I reflect on my temporal experiences during work on this thesis. I explore the ways in which I manage my work-life balance, experience

different working tempos, and I then comment on my temporal experiences with respect to structuration theory.

In the final chapter, I conclude this thesis by identifying my contributions to knowledge, I suggest further areas for research, and I also make some recommendations for practice. I then provide a brief conclusion to this thesis.

Chapter 9. Conclusions

9.1 Introduction

In this final chapter, I conclude this thesis. I start with the aim and I explore each research question with respect to my contributions to knowledge and comment on the limitations of this study. I also identify further areas for research. Finally, I also make some recommendations for practitioners in the fields of e-learning and e-mentoring. I then provide a brief conclusion to this thesis.

9.2 Contributions to knowledge

In this section, I will identify my contributions to knowledge, highlight the research limitations (discussed in more detail in Chapters 7 and 8), and identify areas for future research. My overall purpose in this study is to explore the temporal landscapes of the *EMPATHY Net-Works* project and to illuminate the relationships between this landscape and the temporal experiences of project members. The main focus of the research is the question:

> What are the relationships between the temporal landscapes of the *EMPATHY Net-Works* project and the learning experiences of project members?

This question is explored through the following subset of questions and the first five of these questions provide a structure for this section supplemented by an additional sub-section on contributions to research methodology. Question 6 is dealt with in the next section.

1. What are the temporal landscapes of the *EMPATHY Net-Works* project and the Business School?
2. What are the temporal experiences of the project members?
3. What are the relationships between the temporal landscapes of the project and its members?

4. How does the project temporal landscape help or hinder student learning experiences?
5. How does the project temporal landscape help or hinder the e-mentoring experience?
6. What are the implications of these findings for facilitators and managers of e-learning and e-mentoring projects?

9.2.1 Temporal landscapes of the project and the Business School

In this section I consider the question: What are the temporal landscapes of the *EMPATHY Net-Works* project and the Business School? In Chapters 6 and 7, I demonstrate that the temporal landscape of the *EMPATHY Net-Works* project is complex and there are many commonalities and some differences between the temporal landscapes of HUBS, the *EMPATHY Net-Works* project and the taught module. The mentoring process appears to have a distinct temporal landscape. This finding is summarised in Table 7.3. My work builds on and agrees with the earlier work of Brown (2005) who explores the temporal landscape of a business school. In this research, I contribute to knowledge in this area by indicating the commonalities and differences between the temporal landscapes of HUBS **and** the *EMPATHY Net-Works* project. To my knowledge, no other researcher has carried out this type of analysis or mapped temporal landscapes in this way.

As discussed in Chapter 8, there are a number of limitations to this finding and contribution to knowledge. The first relates to the challenges involved in re-presenting temporal landscapes and the limitations involved in either presenting details of the landscape, e.g. using quotations and metaphors, or the general overview e.g. using tables. It often appeared to be difficult to 'see the wood for the trees' and *vice versa.* One area of potential research is to explore temporal landscapes using drawings and images.

The second limitation relates to my role as a researcher who is immersed in a world of clock time. Although the case study is set in the context of clock time, a number of project members came from cultures with different temporal visions. My analysis did not identify any examples relating to different world visions, other than the Western clock time vision, even though I actively looked for them. This may have been because clock time dominated the experiences of all project members and was the norm for the project meaning that other time visions were not sanctioned within the project. Another reason is due to my limitations as a researcher whose background and experiences are all in clock time rather than other world visions. This is an area for future work and it is a potentially important topic as, due to the internationalisation of higher education and the increase in global working in businesses and other organisations, there is a need to understand the roles that different temporal visions play in education.

Finally, this project is set in the context of the LaSCI and also the home environments of many project members whose sole engagement with *EMPATHY Net-Works* was via their home computer. It was beyond the scope of this work to explore the temporal landscapes of the LaSCI and also individuals' homes. These temporal landscapes may have had an impact on the experiences of project members so this is clearly an area for future research.

9.2.2 Temporal experiences of the project members

In this section, I consider the question: What are the temporal experiences of the project members? My contribution to knowledge about the temporal experiences of project members is in three areas: the representation of temporal experiences using metaphors; fast and slow time; and individual timescapes. I consider my contribution to knowledge with respect to individual timescapes later in this chapter when I consider research methodology.

In Chapter 7, I summarise the metaphors identified in this research (see Table 7.3). I found that there are some differences between the findings in this research and my earlier work (Allan 2007a). In particular, I found that I needed to develop a new category relating to 'time and motion' (see Table 9.1). My contribution to knowledge is that metaphors in e-learning and e-mentoring projects provide a means of developing a sense of individuals' subjective temporal experiences and one that is in sharp contrast to the rather technical temporal language that is used in the classification scheme. Although interpretative research using metaphors is well established, I am unaware of research that looks into the use of metaphors in both an e-learning **and** an e-mentoring project. The use of metaphors as a means of understanding temporal experiences is a potentially fruitful area of research. In both my earlier study (Allan 2007a) and this research, I found very small numbers of temporal metaphors within the data. One area for future research would be to facilitate metaphor workshops as a means of exploring individuals' subjective temporal (and other) experiences of e-learning and e-mentoring projects.

Table 9.1. Metaphors on time and motion

Time and movement	Time is marching on (Student)
	Time has flown by (Project worker)
	Running at our own rhythm (Project worker)
	I get the impression that it flowed, it flowed (Mentor)
	I am now up to speed. I've sorted out the technical problems with C's help. (Student) Time is marching on (Student)
	I could dip in as and when I had time (Student)
	I know I'm jumping ahead here... I'm like a train once I get started it's hard to slam on the brakes. I wanted to know about the Personal Development Plan. Are you going to tell us about it on Thursday? Just checking. (Student)
	The project did seem very busy when I first arrived. I had to hit the ground running. (Project worker)

In Chapter 2, I introduced Erikson's idea of 'fast' and 'slow' time and, although he does not specifically define fast time, he described it as involving a 'fragmented and rushed temporality' the sense that 'time is

accelerating.' I found that it was difficult to work with this concept and moved to the idea of periods when there was a fast tempo and ones when there was a slower tempo. The academic year was divided into periods with a fast tempo, when individuals were busy with large workloads and also a sense of being rushed and having to deal with information overload e.g. through the receipt of large numbers of e-mails, and also slower paced working times with space for reflection and development activities. However, it is not a simple dichotomy and individuals, including myself, created slower paced time or 'slow' time during the times when they were experiencing a fast tempo. It would be an over-simplification to claim that the periods of a fast tempo equated to 'fast time' but there was some evidence that within these periods individuals experiences a rushed temporality, information overload and a sense of work speeding up.

9.2.3 Temporal landscapes of the project and its members

This section identifies the contribution to knowledge as a result of exploring the question: What are the relationships between the temporal landscapes of the project and its members? The analysis of the organisational construction of time and the summary presented in Table 7.2 indicates similarities and differences between the temporal frames of the Business School, EMPATHY Net-Works project, the taught module and the e-mentoring process. My main contribution to knowledge in this area is that I believe I have demonstrated that within the project team we reproduced the traditional temporal framework for a taught module and one that is aligned with standard academic timetables. In contrast, the lack of a prescribed temporal framework for the mentoring process meant that although many mentoring pairs developed their own framework some were unable to establish a pattern of working together. I am not aware of any research that explores the temporal frameworks of a taught module and mentoring process. One of the limitations of this finding is that it relates to a very specific project in a UK organisation and so the findings may not be transferable to other contexts. In addition, the mentors all came from the LaSCI which has its own temporal landscape. Consequently, the mentors' approaches to time in this project may not be typical of mentors in other sectors. This is a potential area for future

research and it would be useful to explore the temporal frameworks in other mentoring projects. The implications for practice of this finding are explored later in this chapter.

In Chapters 6 and 7, I explored individuals' temporal horizons and their temporal identity. There was a clear distinction between project members on a temporary contract of employment and those with permanent contracts or who were not financially reliant on their income. The former had a temporal horizon at the end of their project and they were task workers, while the latter group were invaded clock timer, clock timer or blurred timer. As a result of this finding, one tentative contribution to knowledge is that there appears to be a potential relationship between individual temporal horizons and their employment status. Further research using larger numbers of research participants is required to explore this observation.

I also explored issues arising from the sense of presence or absence (Friedland and Boden 1994) with respect to their mentor or mentee. Absence or presence was an emotional issue for some mentees and mentors, where in some cases, the absence of their mentor seemed to be interpreted by the mentee that the mentor was not only unavailable online but also psychologically absent. In terms of contributions to knowledge, this finding builds on previous work on trust (e.g. McConnell 2005) and absence/presence in virtual environments (e.g. Friedland and Boden 1994) and indicates that it is also an issue in e-mentoring situations. This issue could be developed by further research into individuals' subjective experiences with respect to presence/absence in the context of mentoring. In particular, the differences between presence and absence in the online environment and also psychological absence could be explored in detail. The practical applications of this finding will be considered later in this chapter.

9.2.4 Students' learning experiences

This section identifies the contribution to knowledge in my exploration of the research question: How does the project temporal landscape help or hinder students' learning experiences? In Chapter 7, I indicated that the temporal landscapes of the project appeared to support students' learning experiences on the taught module as this was delivered using a temporal framework that was familiar to the students. Factors that hindered students' learning experiences related to temporal pressures external to the project e.g. work and family pressures, or difficulties in accessing the site due to overseas business trips. The contribution to knowledge from this finding relates to my attempts to link the project temporal landscapes with student learning experiences. I am not aware of any previous research that links these two concepts. Much of the research on temporal landscapes, e.g. Brown (2005), is set in the context of management or organisational studies rather than educational research.

My use of Giddens's structuration theory indicates that the shared interpretive schemes of the project team, who constructed the taught module, and students based on their prior educational experiences helped to facilitate their learning experiences. However, I was unable to find examples of the ways in which these shared interpretive schemes constrained the students' learning experiences and this may have been the result of the limitations of the shared interpretive schemes relating to taught modules. In other words, it is possible that project members have internalised standard working practices with respect to taught modules and am unable to see alternative approaches to them. This is a potential area for future research, i.e. to explore individuals' interpretive schemes with respect to the temporal landscapes of a project or business school, and a taught module or programme.

9.2.5 E-mentoring experiences

This section deals with my contribution to knowledge in response to the question: How does the project temporal landscape help or hinder e-

mentoring experiences? In Chapters 3, 6 and 7, I indicate that the mentoring process was developed on the assumption that the mentoring pairs would establish their own working relationship and temporal landscape. The project team did not provide a detailed schedule for the mentoring process. In this study, I found that satisfied and very satisfied mentoring pairs regularly communicated with each other and developed a working relationship and working practices. In contrast, some mentoring pairs did not establish a relationship or mentoring process, and their experience may have been limited due to the absence of a temporal framework for the mentoring process.

This finding contributes to knowledge on mentoring as it goes beyond general claims that 'time is an issue,' e.g. Headlam-Wells, Craig and Gosland (2006), to suggesting that one of the characteristics of successful mentoring pairs is that they develop a temporal framework that helps to support their mentoring relationship and process. In the absence of a framework, some mentoring pairs appear to struggle. However, their mentoring relationship may also be adversely affected by issues relating to different interpretive schemes with respect to mentoring. The relevance of this finding to practice is explored later in this chapter.

9.2.6 Contributions to research methodology

In this thesis, I carried out an interpretivist study and developed an ethnographic case study in which my role was participant-as-observer. I collected narrative data from a wide range of sources and used NVivo to help me to manage and analyse it. I presented my findings in Chapter 6 which included: representations of organisational and project timescapes including a year planner (Figure 6.1); quotations from interviews and selected text from online discussion groups and also the project evaluation process. This approach is commonly used in ethnographic research and it enabled me to present a rich picture of the project and project members' experiences. I extended the classification framework produced by Ancona, Okhuysen and Perlow (2001) by including

additional variables and I used this as a tool for consistently analysing and also managing my findings.

Consequently, this thesis contributes to knowledge development in research methodology in the following ways. First, I have carried out research that has not been carried out before; an ethnographic case study involving the temporal landscapes of a business school, project, taught module and mentoring. Second, I re-purposed the classification scheme of Ancona, Okhuysen and Perlow (2001) and this involved extending the framework by including additional variables and then using it to code my findings. I am not aware of another researcher who has used this classification scheme in this way.

A major challenge relates to the limitations imposed by researching a case study that is steeped in traditional approaches to clock time when the researcher has also fully internalised this approach to time. The limitations of using the adapted classification scheme are explored in 8.3 and include: the challenges of re-purposing a classification scheme that was based on variables identified in a number of seminal research papers and then extended to cover additional variables identified in contemporary temporal research; identification of some concepts (time management, time and motion, presence and absence) which do not easily fit into the classification scheme; difficulties in classifying some examples of text in the scheme as they fit into more than one sub-category. Finally, another limitation of this study is the language commonly used in temporal research as shown in the classification scheme. It did not closely match the language used by project members. I suggest that the rich language and metaphors used by individuals helps to create more vivid images of their temporal experiences than the technical language of temporal researchers.

In this study I was able to identify the temporal personality or timescapes of individual project members and this involves characteristics such as temporal horizon, orientation, depth and identity. This builds on the work of Brown (2005) and is unique in that I have involved different project

members with different roles unlike Brown's work which focuses on the experiences of academics. My findings are summarised in Tables 7.4 and 7.5. My research indicates that my research methodology enabled me to identify and represent the timescapes of different members of a project. As with the representation of the temporal landscapes described in the previous section, these representations are limited by the words used to re-present individuals' subjective experiences. In terms of my contribution to knowledge, I believe that this approach provides a starting point for a more extensive study into individual timescapes within an educational project.

Finally, I have used Giddens's structuration theory as a framework for analysing my findings and I am not aware of this framework having been used in previous temporal research relating to e-learning and/or e-mentoring. I believe that my overall research methodology is unique in the way in which I have applied and adapted established approaches to this particular case study. The limitations of my methodology are explored in detail in Chapters 5 and 8.

9.3 Recommendations for practice

In Chapter 1, I explain that in my professional practice I have observed that time is often an issue in e-learning and e-mentoring. In earlier studies (Allan 2004; 2007a), I explored e-learners' experiences of time and I found that this often involved a complex process as individual learners adapted and changed their approaches to learning to meet the temporal demands of working within a virtual environment. My starting point for this study was to explore the e-learning and e-mentoring experiences of the project members involved in the *EMPATHY Net-Works* project and this developed into a study that included the temporal landscapes of the project and the Business School.

In this study, I demonstrate that within the project team we reproduced the traditional temporal framework for a taught module and one that is aligned with standard academic timetables. Individual activities were

labelled using calendar time (e.g. week 1, activity 1) and students received a weekly digest of recommended learning activities for that week. This approach to developing and delivering a taught module to students worked well and appeared to facilitate their learning experiences. Consequently, one of my recommendations to practitioners is to consider using an explicit temporal framework for their e-learning programmes and to disseminate this to students via the e-learning site, guidance materials and regular digests or newsletters.

In contrast, the lack of a prescribed temporal framework for the e-mentoring process meant that although many mentoring pairs developed their own temporal working practices some pairs were not able to achieve this. My recommendation for practitioners who are establishing an e-mentoring process is to consider providing a recommended temporal framework which may include suggested activities to their mentees and mentors. If this is provided as an optional support aid then mentoring pairs may choose to use it or develop their own working practices.

My final recommendation for practice relates to the expectations of mentees and mentors concerning the mentoring process. I suggest that they discuss their expectations and expected availability in a virtual environment, and also how they will manage unexpected absences. My analysis of the findings in Chapter 7 suggests that different people have very different understandings of what was meant by a 'meeting' or 'contact' in an e-mentoring process and their different preferred methods of communication, e.g. e-mail, text messaging, phones or face-to-face meetings, contributed to issues relating to presence and absence. Consequently, my recommendation is that practitioners who are establishing e-mentoring programmes consider facilitating opportunities for mentees and mentors to explore these issues either before the start of the mentoring process i.e. at the matching stage, or in the early stages of their mentoring relationship.

9.4 Conclusion to the thesis

In this final chapter, I have concluded my thesis by returning to my main research question: What are the relationships between the temporal landscapes of the *EMPATHY Net-Works* project and the learning experiences of project members, and responding to it by briefly reviewing my main findings, identifying my contributions to knowledge and setting them in the context of the limitations of this research. I also identify areas for future research. I then identify three recommendations for practitioners who are involved in the design and delivery of e-learning or e-mentoring programmes.

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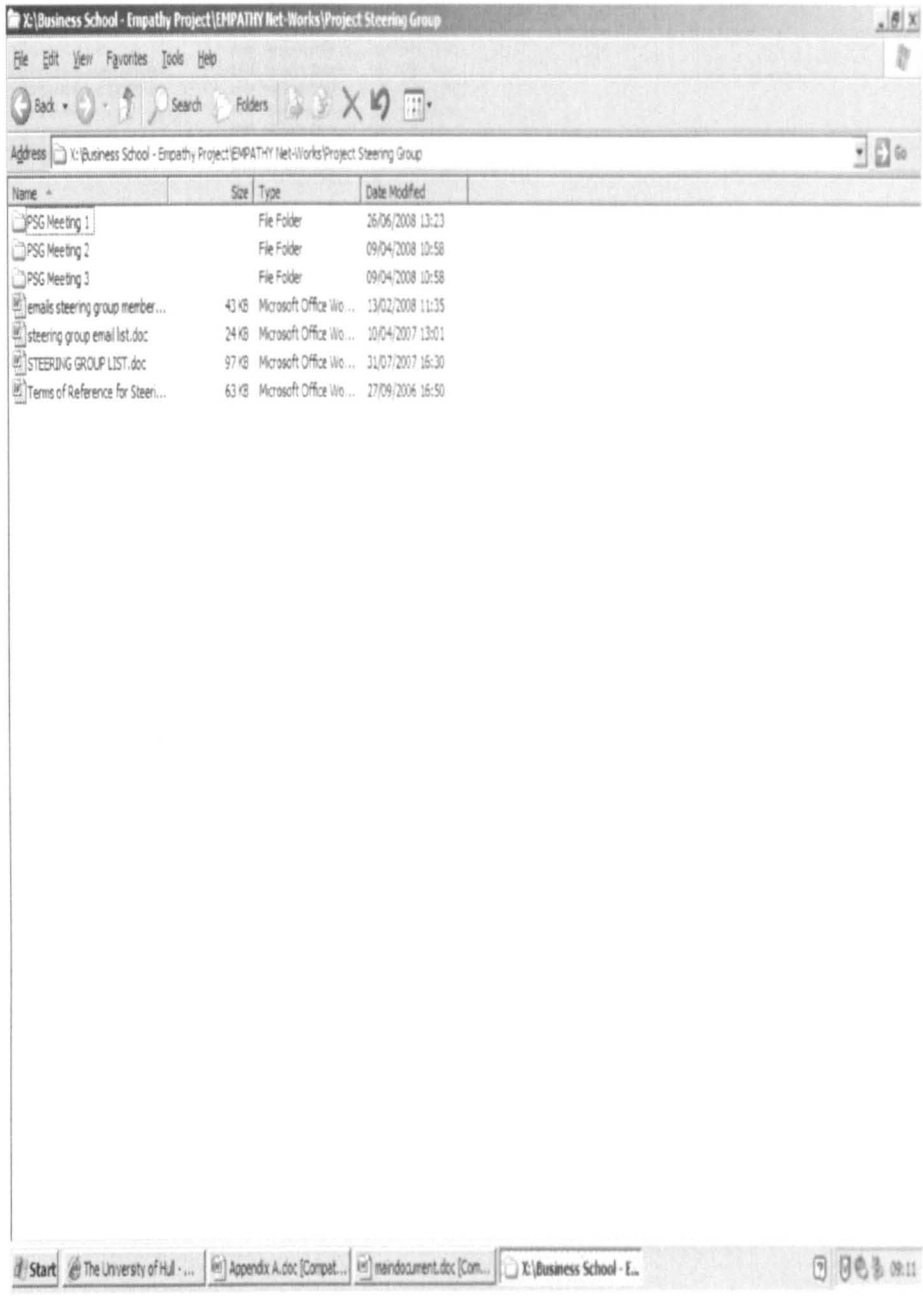
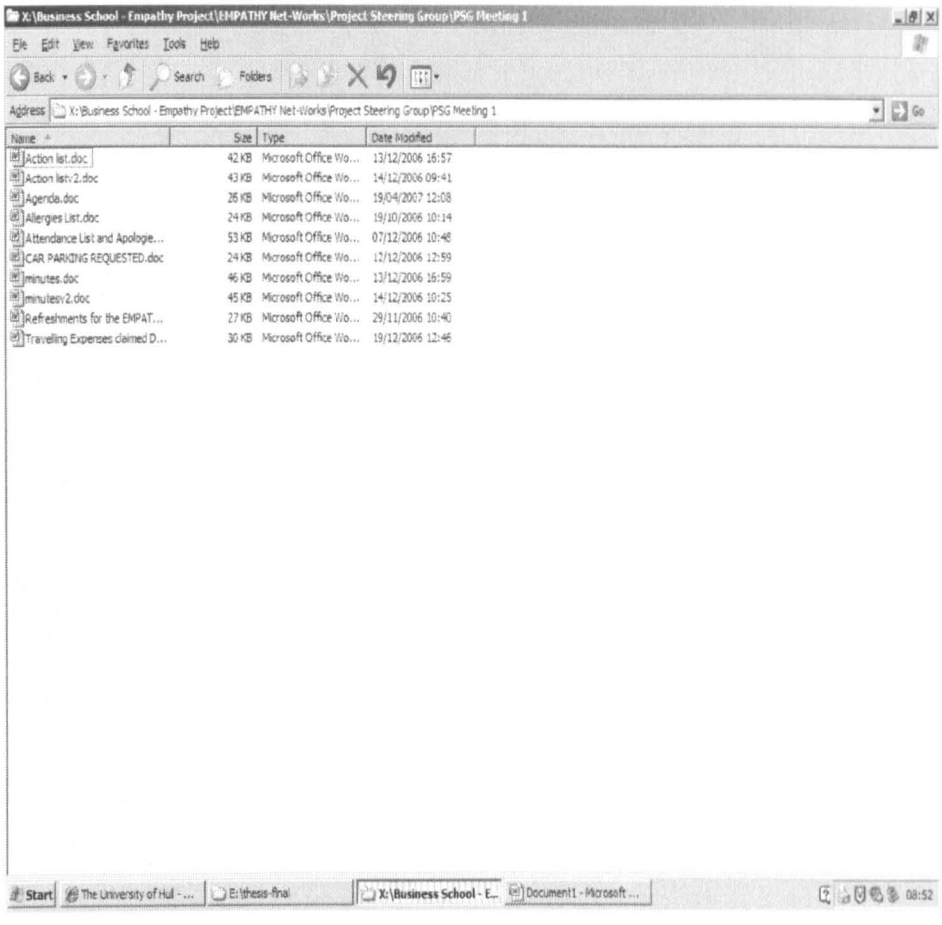
Appendix A: Sample project document files

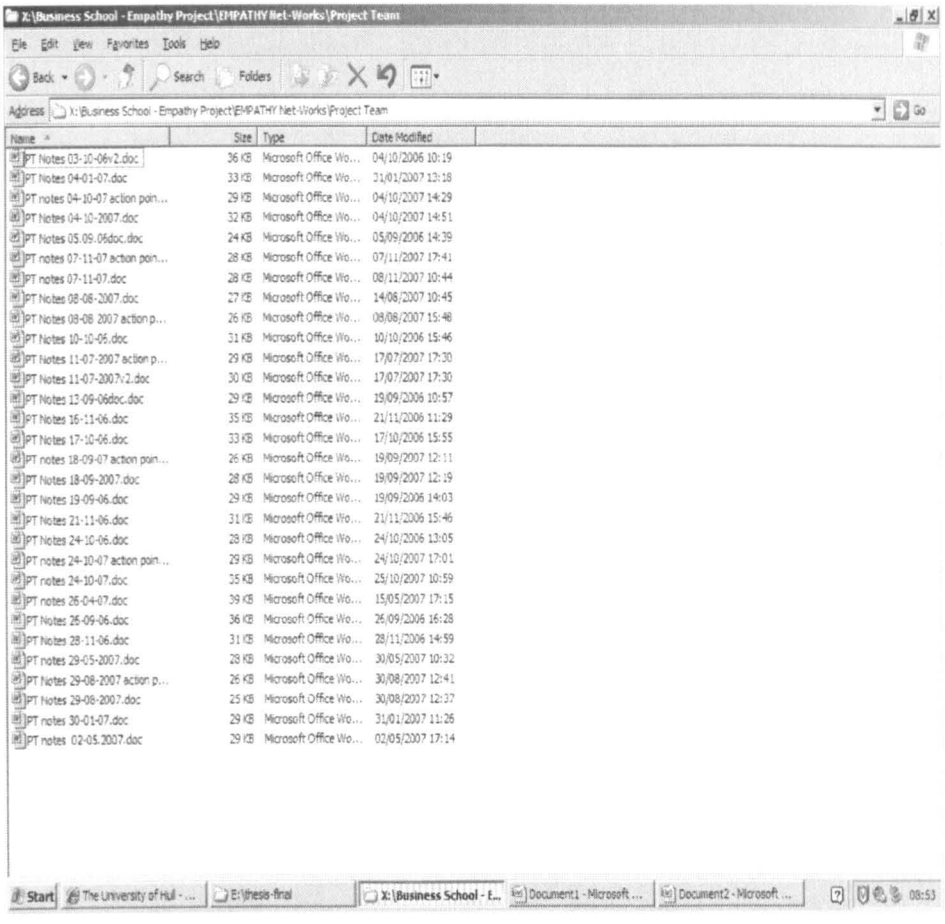
1 Project Steering Group meetings: main folder



2 Project steering Group meeting 1. Documentation.



3 Project Team Meetings. All documentation



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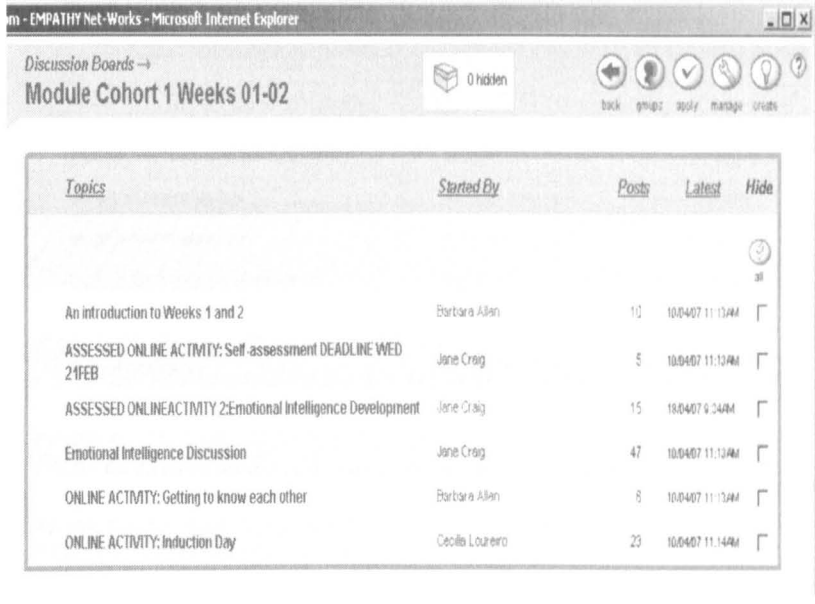
Appendix B: Taught module programme

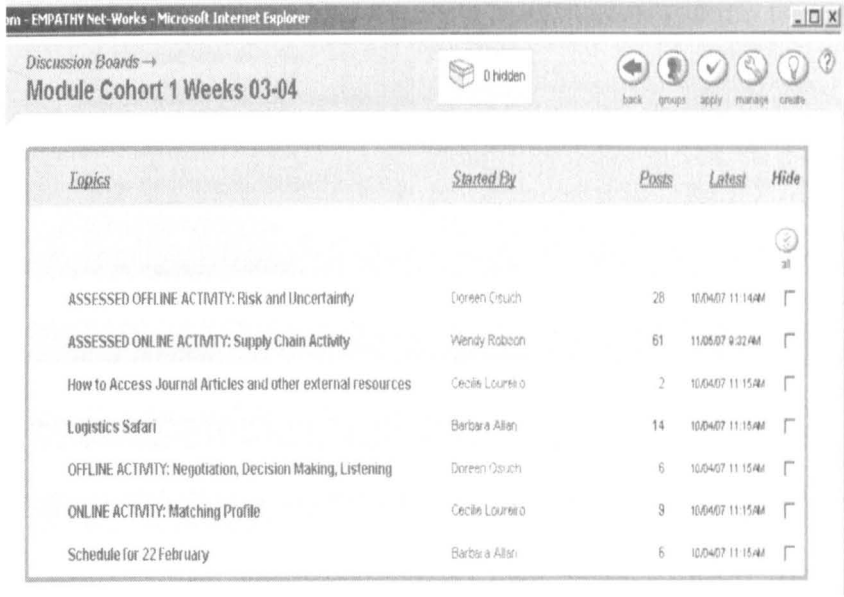
Week	ON-CAMPUS WORKSHOPS			E-learning - independent study	E-learning - discussion groups	E-learning - coursework	E-mentoring
	PD	MD	L&SCM				
1 8 Feb	Induction (BA/JC/CL) **–2.5 hrs**		Guest speaker – Intro to L&SCM (BA/CB) **30 mins**	Podcasts (BA/JK) PowerPoint - general (BA/TB) PowerPoint - jargon (BA/TB)	**Welcome**	Skills assessment (JC) **OL - 1 hour**	
2 15 Feb					Emotional intelligence discussion	Emotional intelligence - questionnaire (JC)	
3 22 Feb.		Negotiating, decision making, listening skills (DO) **2 hrs**	Supply chain activity (WR) **1.5 hrs**		Supply chain activity (WR)	Risk taking form (DO) Supply chain activity - reflection (WR)	
5 8 March	Logistics safari **4 hours (BA/CB)**				Logistics safari discussion group (WR)	Logistics safari - group work (WR) Logistics safari - individual work (WR)	Introduction to e-mentoring (JC) **2 hrs**
6 15 March	**1:2:1 coaching (JC)**	Leading and managing teams (F2F and virtual teams) (DO) **1. 5 hrs**	Guest speaker (BA/CB) **30 mins**				
7 22 March					L&SCM - Theme activity - 3 groups - blue, green, orange (WR)	L&SCM Theme activity - 3 groups (WR) Theme activity - individual (WR/DO)	**E-mentoring starts**
		Easter vacation 26 March - 13 April					
8 19 April	Gaining employment (BA) **1 hr**	Project management (BA) **1 hr**	Guest speaker (BA/CB) **30 mins**	PM Paper (BA)	Gaining employment (BA)	CV (BA) PM - reflection (BA)	
10 3 May	Module completion activities: skills assessment, reflection, action plan, logistics mcq, evaluation (BA/JC/CL) **2.5 hrs**			Guest speaker (BA/CB) **30 mins**	**Module evaluation and reflection (BA)**	Logistics quiz (BA/TB) PDP (BA) Final reflective commentary (BA)	

Appendix C: Screen shots from iCohere

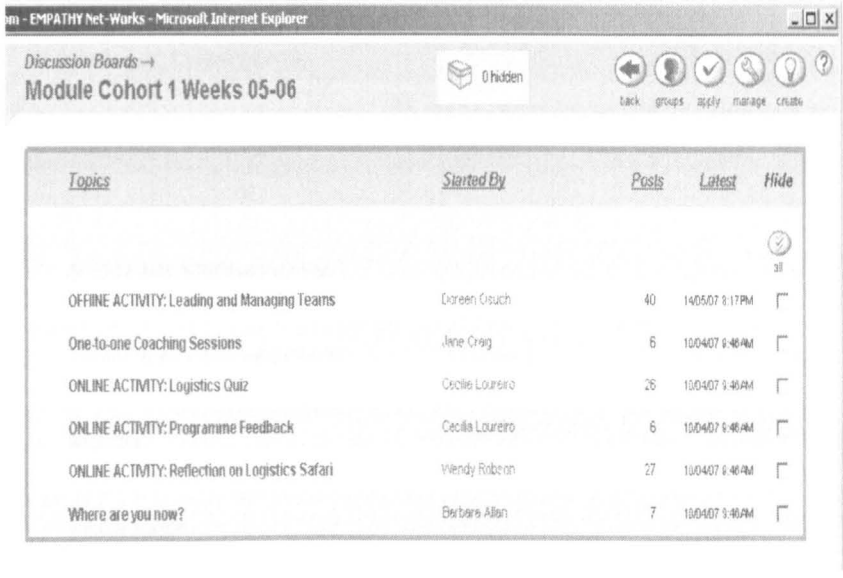
1 Students. Cohort 1. Discussion boards for Weeks 01-02, taught module.



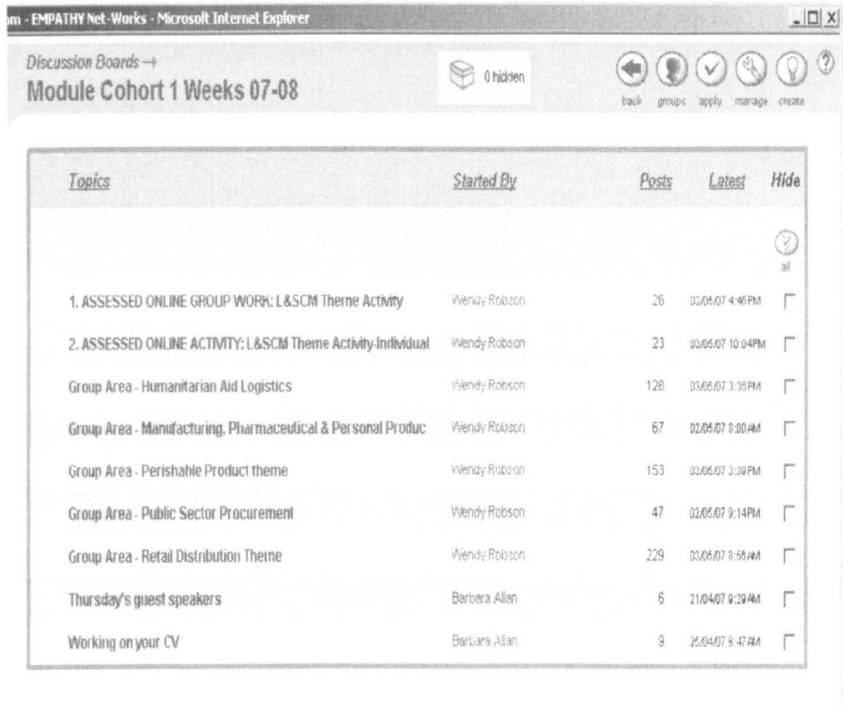
2 Students. Cohort 1. Discussion boards for Weeks 02-03, taught module.



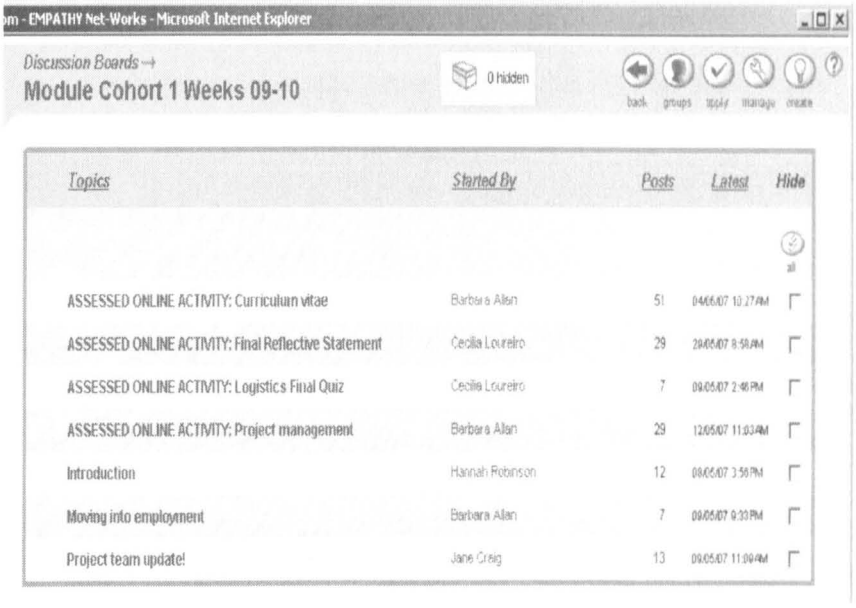
4 Students. Cohort 1. Discussion boards for Weeks 05-06, taught module.



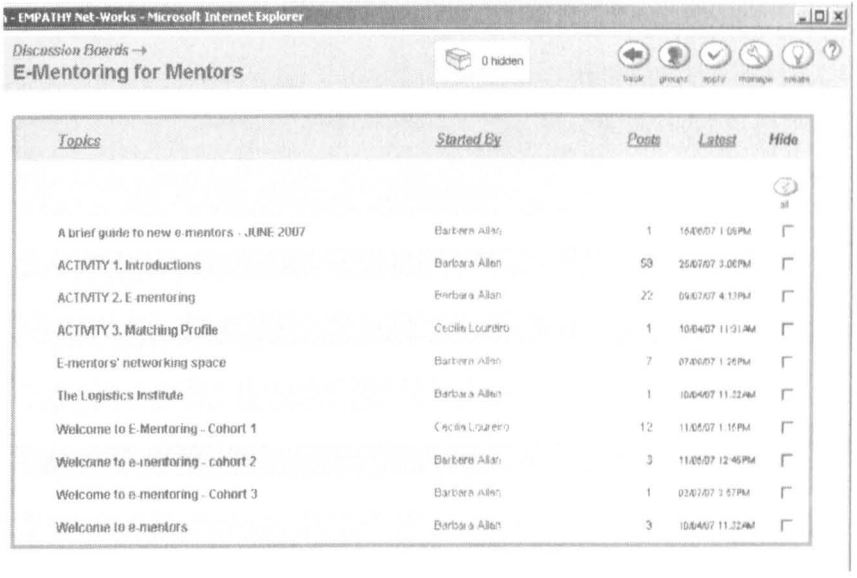
4 Students. Cohort 1. Discussion boards for Weeks 07-08, taught module.



5 Students. Cohort 1. Discussion boards for Weeks 09-10, taught module.



6 iCohere. Example screen shot indicating discussion boards for Mentors.



Appendix D: Screen shots from NVivo

1 Programme feedback forms

2 Student/mentee final reflection forms

3 Sample set of mentee evaluation forms

4 Sample set of mentor evaluation forms

5 Interview folder plus text of one interview