Conversations and silence: learning by word of mouse?

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Abstract

This thesis explores how and what people learn through networked collaborative discussions online, in order to establish whether this can be a rewarding learning experience and to address some of the gaps in our understanding of the underlying theory and pedagogy.

The research examined an online distance learning programme aimed at educational professionals who were, or would be, implementing e-learning in their institutions in the United Kingdom. Its focus was a series of online collaborative discussions about aspects of e-learning.

The study's virtual auto-ethnographic approach, in which the researcher experienced online learning first hand as a student, and its use of metaphor analysis and critical event recall to complement content analysis, aimed to put the learner's perspective at the centre of the research. The idea of the student as researcher rather than, for example, the teacher as researcher was also pursued.

The study explores the issue of community in online learning and, in particular, the significance of non-participation ('silence') in collaborative discussions and found that valuable learning may occur, despite widespread non-participation and lack of a community of practice. However, while individuals may learn by 'lurking', the learning potential of collaboration may be reduced as a result. It is therefore important to balance the right of individuals to be silent with the group's need for collaboration.

There was evidence of a strong link between metaphor and emotion. The study also suggests that online learners' language can transmit aspects of their identity, such as their values and gender, which may be a threat to the democratising nature of online learning. It is important to appreciate the significance and power of language, especially metaphors, as a teaching tool and as a means of expressing emotion, especially negative emotion, and overcoming lack of body language.

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A Prologue

First lesson

In September 1962 a small girl approached the Victorian infants' school building with a hop of hope. All the build-up from her parents, both educators themselves; the "You'll learn so much" and "You'll really like it there" had combined to produce great expectations. The girl could already read and write and had a good vocabulary. The goodbyes at the school railings were brief and the small form entered the building with a spring in her step.

After a morning devoted to the basics of English and reciting the catechism, the girl looked forward to a more stimulating, more challenging afternoon.

The afternoon began with the form teacher opening a large cupboard at the left hand side of the classroom. Inside were two shelves. They were crammed full of toys, including a sandpit, buckets and spades. The girl could not hide her astonishment and disappointment when the contents of the cupboard were revealed. The teacher asked her, quite insistently, why she looked so dismayed. She replied, honestly, mindful of all the messages from her parents, "I came here to learn, not to play." The teacher brought her to the front of the class, took out a blue and brown wooden 12inch ruler and hit her with it several times across her small white outstretched hands.

What most struck the child, on reflection, was the brevity of the conversation with the teacher followed by the long, eerie silence before the ruler descended.

So ended the first lesson; but what was learned, and how?

Advanced Level

In August 1976 the teenager approached the Victorian convent school building with a smile of hope. All the build-up from her parents, both educators themselves; the "You'll be fine" and "You've worked so hard" combined to produce great expectations. The girl was intelligent and knowledgeable but had honestly found 'A' levels rather puzzling. It all seemed to be about having opinions. Was the Peloponnesian War justified? Why did Alexander the Great behave like he did?

Even her Special Paper in creative writing (a poem on the perils of communism) had received sceptical feedback from the English teacher. Indeed, on her school report for

the Upper Sixth, the teacher had put, "She should express an opinion because she believes in it, not merely because it is different." Since it was well known that the teenager was going to study law at University with view to becoming a barrister (a paid advocate), and 'A' level study seemed to be all about expressing opinions, this seemed rather ironic.

The teenager met up with her fellow sixth formers at the school gate. The greetings were brief and she entered the building with a spring in her step. The ritual began with the form teacher opening a large cupboard at the left hand side of the classroom. Inside were two shelves. They contained a number of plain brown envelopes. She handed them out. The teenager could not hide her astonishment and disappointment when the contents of the envelope were revealed. Her teacher asked her, quite insistently, why she looked so dismayed. She replied, "Is this a mistake? It says I have failed 2 out of 3 of my 'A' levels." She asked herself: "Have I failed the assessment - or has the assessment failed me?"

The teacher didn't need to bring her to the front of the class or hit her with a ruler.

What most struck the teenager, on reflection, was the brevity of the conversation with the teacher followed by the long, eerie silence after the envelope was opened and its contents sank in.

So ended her convent days, but what was learned, and how?

Further education

In September 1976 the teenager approached the entrance to the modern further education college building with a slightly nervous gait. Her parents had supported her decision to retake the two failed 'A' levels but also said "You can choose whatever career you want; be a hairdresser if you like." The lack of build up was audible.

The girl was determined and understood what was expected and had honestly found 'A' levels less puzzling second time round. It was still about expressing opinions. Why did Queen Victoria get on better with Disraeli than Gladstone? However, it now also included discussion and analysis. Are we becoming 'une société de loisirs'? Who was really the hero of 'La Peste' ?

This time round her essays and assignments received positive feedback from the lecturers and she was encouraged to believe that she would be capable of studying law at university with view to becoming a barrister.

The teenager met up with her fellow students at the college gate. The greetings continued as they walked down the road and entered the pub with a sense of exhilaration. There were no teachers and no cupboards. The plain brown envelopes had already arrived in the post. The teenager had felt a sense of pride and justice when the contents of the envelope were revealed to her alone and in private.

At the pub she was proud to reveal that she had passed both 'A' levels and had an unconditional offer from her first choice university to study law.

What most struck the teenager, on reflection, was the silence before the envelope was opened and its contents sank in, and the later conversation with her friends.

So ended her college days, but what was learned, and how?

Higher education

In October 1977 the young woman approached the entrance to the Faculty of Law with an air of excitement. Her parents had dropped her off at the Hall of Residence the previous weekend and wished her luck. Her father, who didn't have a degree ("because of The War") and her mother who didn't have a degree ("because you had to give up your job, let alone any academic ambitions, when you got married in those days") had nevertheless looked vaguely proud, even if she was their fourth child to go on to higher education, and it was all becoming rather routine. The lack of build up was comfortable.

The young woman was logical and analytical and honestly found university immensely stimulating. It was about sitting in lectures and listening, then, afterwards writing things out neatly and logically. It was about analysing the law, seeking out loopholes and expressing legal opinions, potentially counsel's opinion, on whether a particular case was likely to succeed or not and organising, and appearing in, moots and mock trials with staff as well as fellow students.

Her essays and assignments continued to receive positive feedback from the lecturers and she was encouraged to believe that she would be capable of becoming a barrister.

In June 1980 the young woman met up with her fellow students at the notice board in foyer of the Faculty of Law. The results posted showed that she had been awarded an Upper Second Class honours degree. She walked down the road and entered the pub with a sense of exhilaration. There were still no teachers and no cupboards. The young woman felt a sense of pride and justice in her achievement.

What most struck the young woman, on reflection, was the silence in the lectures and the deep, stimulating discussions in someone's room when you could philosophise all night listening to Neil Diamond and eating toast and toasting the memory of those who "Wouldn't put people in a box with a label on" but ended up in one all the same.

So ended her University days, but what was learned, and how?

Legal education

In October 1981 the young woman approached the entrance to the Inns of Court School of Law with an air of satisfaction. Even though her father had died at the time of her finals at University and not seen her graduate, her mother was happy for her. Build up was long gone.

The young woman had a good memory and acquired some further legal knowledge and understanding. She honestly found her professional education intense and challenging. It was still mostly about sitting in lectures (with over 200 people at times) and listening, then, afterwards writing things out neatly and logically, but there were also practical exercises (advocacy and drafting) which played to her analytical and verbal skills. It was about analysing the law, seeking out loopholes and drafting counsel's opinions, on whether a particular case was likely to succeed or not.

Her essays and assignments continued to receive positive feedback from the lecturers. The video tapes showed that she was a competent advocate and formidable opponent and she was encouraged to believe that she was quite capable of becoming a barrister. The unseen written examinations themselves were far easier than she had anticipated; she was very well prepared and sailed through.

In June 1981 the young woman bought a copy of 'The Times' newspaper to share the Bar Finals results with her mother. They started looking at the results from the bottom

upwards. In fact her result was very near the top of the page and showed that she had come in the top group with a very good pass result. She closed the newspaper with mixed feelings. There was no particular sense of exhilaration: was she ever going to convince everyone that she was intelligent and worthy of being called to the Bar? Was she anyone's 'learned friend'? There were still no teachers and no cupboards, yet the young woman was at a loss to know quite how to feel about her achievement.

What most struck the young woman, on reflection, was the silence when looking at the newspaper which continued long afterwards.

So ended her Gray's Inn days, but what was learned, and how?

Surveying the scene

In August 1993 the woman approached the entrance to the college building on the university campus where she worked with an air of being a participant in a well-tried nine-to-five ritual. On her desk was a plain brown envelope. It contained a circular from the Royal Institution of Chartered Surveyors offering experienced academics a route to qualify as a chartered surveyor.

The woman had a good memory but needed to acquire further knowledge and understanding outside her normal comfort zone. Surveyors existed in a world which contained numbers as well as her beloved words. She honestly found enrolling as a student at her own distance learning college immensely challenging. It was not about sitting in lectures so much as self-directed study in her so-called spare time. It was about making assumptions and understanding the algebra that lay beneath the valuation tables. A surreal moment came when she delivered the revision lecture for the law examination which she herself was taking. Sublimely, she asked her students if she was allowed to fall asleep in her own lecture...

Her few assignments, submitted voluntarily, received reasonably positive feedback from the tutors and she was encouraged to believe that she was capable of becoming a chartered surveyor. The unseen written examinations themselves were, on the whole, easier than she had anticipated and she was very well prepared. On the way in to the examination hall, one of her own students called out: "Look out – there's Miss!"

In April 1994 the woman received a letter stating that she had passed all the examinations. She later submitted a dissertation and passed an Assessment of Professional Competence and became a chartered surveyor.

What most struck the woman, on later reflection, was the silence in between the questions in her viva and the supportive conversations with her fellow students.

So started her surveying days, but what was learned, and how?

Life online

In early 2000 a middle aged woman sat down at home in front of a computer with an air of excitement and anticipation. On her screen was a Virtual Learning Environment. She posted a message about an aspect of e-learning. She was the first in her learning set to do this.

The woman had a good understanding of e-learning but needed to acquire hands-on experience. On-line learners existed in a virtual world which contained texts of their 'conversations' which well-suited her love of words. She honestly found enrolling as an online student a very positive and interesting experience. It was not about sitting in lectures at all but about conducting dialogue with peers.

Her few solo assignments received positive feedback from the e-tutor and her portfolio was accepted at the end of the programme so that she had passed. She was encouraged to believe that she was capable of becoming an e-tutor herself. Submitting the portfolio, to prove what she had contributed to the programme and how she had met the learning outcomes, was a relatively straightforward task and she had kept good records in anticipation.

What most struck the woman, on later reflection, was the silence in between the online conversations as well as the conversations themselves.

So what was learned, and how? Surely this merited further investigation?

Highest education?

In September 2000 the middle-aged woman approached the entrance to the School of Education with an air of anxiety. She placed her surveying dissertation on the table in front of the Head of School and the Senior Lecturer conducting the interview. The Senior Lecturer flicked through it, noting the number of colour pictures of buildings and remarked that "it would look nice on a coffee table."

One month later she walked into the first session of the first EdD residential weekend with some trepidation. There was no law or surveying in sight. Quotations from unheard of authors filled the air, references to philosophers and political figures caused her vague unease. She had never studied social science. She had never studied education; she had simply been doing it all these years. She was, in short, a rookie researcher.

The woman was seen by others as incisive and assertive but she needed to understand the theory behind her practice and move outside of her comfort zone. Educationalists existed in a world which contained concepts as well as words. She honestly found enrolling as a student on a doctorate in this discipline challenging and scary. It was not about sitting in lectures, but about sharing views with people who had qualifications (many at Masters' level) in education and experience of researching it. It was about learning about research, learning about learning and learning about yourself.

Her assignments received positive feedback from the tutors and she was encouraged to believe that she was capable of getting there.

What most struck the woman, on later reflection, was the lack of silence in the sessions and the deep, stimulating discussions in the bar when you could philosophise all night listening to other people's life stories, drinking Soave and toasting the success of your fellow students.

So she had resumed her university days and so much has been learned – and how!

Chapter One: Introduction. Opening the box

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Chapter One: Introduction. Opening the box

1.1 Introduction

This chapter introduces the study in its national, international and personal contexts. It gives details of the researched programme and explains the limits and limitations of the study. It sets out the research questions and explains the factors which influenced the decision to explore this subject using the framework of these questions. The methodological approach and the theoretical basis for this study are outlined and the particular contribution made by this thesis to the general body of knowledge is identified. The chapter concludes by giving an overview of the thesis.

Note: Throughout this thesis I refer to the books I studied in accordance with the edition I actually used, rather than the year in which the work was first written or published (for example, Aristotle, 1991).

1.2 The research

This study explores how distance learners learn by participating (and/or not participating) in networked collaborative discussions online.

1.2.1 The research questions

The three research questions that are explored in depth throughout this study are:

- How and what do people learn through online 'conversations'?
- What is the significance for learning of online silence?
- What is the significance for learning of the use of metaphor in online 'conversations'?

These research questions, which are inter-linked, have evolved over a period of time; although very similar to the original ones, they have become less wordy and more focussed. During the course of the study I added a separate question about metaphor as it became clear that this was an important emerging theme. An early question about influences on the learning experience proved too wide to be covered in this thesis, but could form the basis of future research. An original question about how being part of an online community may help to reduce the 'isolation' of distance learners, was not pursued because there was insufficient data to investigate this further.

1.2.2 Outline of the theoretical basis

The key theoretical themes explored in this study and the principal texts drawn on include:

- Collaborative networked learning: a new paradigm? (Kaye, 1989; Mason, 1992; Koschmann, 1996; Dillenbourg, 1999).
- Learning as an abstract process; knowledge as a concrete thing (Plato, 1882; Aristotle, 1991); learning as a social or solo activity (Vygotsky, 1986); a socio-cultural perspective; concepts of community (Lave and Wenger, 1991; Wenger, 1998; Hodgson and Reynolds, 2005; McConnell, 2005, 2006)
- Kinds of learning (Bloom et al., 1956; Marton and Säljö, 1976; Prosser and Trigwell, 1999).
- Learning through conversation and discussion (Plato, 1882; Barnes and Todd, 1977, 1995; Laurillard, 2002; Dillenbourg, 1999; Mercer and Wegerif, 1999).
- Situated learning, adult learning, constructivism (Piaget, 1928, 1959, 1969, 1971; Knowles, 1970 and 1983; Bandura, 1977; Brookfield, 1986; Vygotsky, 1986; Brown et al., 1989; Lave and Wenger, 1991; Laurillard, 2002; Wenger, 1998).
- Online silence and non-participation (Harasim et al., 1995; Sifianou, 1997; Wenger, 1998; Light and Light, 1999; Littleton, 1999; Brookfield and Preskill, 2005).
- The significance of metaphor in online learning (Lakoff and Johnson, 1980; Ortony, 1993; Cameron and Low, 1999; Kövecses, 2000; Cameron, 2003).

The key theoretical bases for this thesis are discussed in detail in Chapter 2.

1.2.3 Outline of methodology and methods

In order to address the issue of how and what people learn through online conversations, I undertook the study using a virtual auto-ethnographic approach. The term virtual ethnography refers to the fact the fieldwork was conducted online (Hine (2000), and auto-ethnography to the fact that I enrolled as a student on the researched programme in order to experience this form of learning from the perspective of myself as a student. This approach was chosen to try to make sense of the complex processes and interactions involved by experiencing them first hand. The auto-ethnographic approach involves including my own experiences in the text (Tedlock, 2000: 460). I place this work in the context of my life in education, in line with the practice to locate the self more centrally, not just in the fieldwork but in the analysis and

the written account (Coffey, 1999: 125). In so doing I acknowledge that this involves having multiple voices (such as researcher, past learner and learner on the researched programme).

I analysed the transcripts of all the online conferences, which consisted of 191 individual postings, and carried out 14 semi-structured interviews with students, the tutor and the Course Director. I analysed the data using content analysis techniques (Henri, 1992; Lally and De Laat, 2002; Garrison and Anderson, 2003) and metaphor analysis (Cameron and Low, 1999; Cameron, 2003; Rivers (2008)(a)(forthcoming)). The interviews incorporated critical event recall techniques (Tuckwell, 1980; Kagan, 1984; Kagan and Kagan, 1991; Lally, 2002; Steeples, 2004; Carr et al., 2006).

A preliminary analysis of the conference transcripts was undertaken using categories emerging from the messages themselves, without detailed reference to the literature, drawing upon grounded theory (Glaser and Strauss, 1967; Strauss and Corbin, 1998). Further data analysis was carried out in the light of my literature review. The validity of this approach has been acknowledged by researchers in this field (McConnell, 2000; Lally and De Laat, 2002; De Laat and Lally, 2003; Steeples, 2004; McConnell 2005, 2006). I present and discuss my methodology and methods in detail in Chapter 3.

1.2.4 Terminology

Historically, the concept of distance learning emerged in the 1960s and 1970s as a successor to correspondence courses. The metamorphosis from purely paper-based correspondence courses to distance learning came about by adding face-to-face teaching or direct tutor contact, and using media other than the written word (Rivers, 2000: 1).

In this thesis I have used the terms 'online' learning or 'e-learning' (electronic learning) interchangeably, as generic terms to mean learning through materials and/or learning experiences provided via the Internet (which includes sites on the World Wide Web and email). I do not do so in the narrower way used by some academics, as Foster et al. (2001: 131) point out, to indicate more interaction with materials than between people. I use the term online learning because this was consistently used throughout the researched programme itself (for example in all programme documentation); and e-learning because it was the term used by the two institutions that I worked for during the majority of my EdD research. I acknowledge that terms such as technology enhanced or technology assisted learning are perhaps more commonly used now.

The specific type of online learning which this thesis focuses on is networked learning. I use the terms 'networked learning' or 'networked online learning' to mean:

> *Learning in which information and communications technology (ICT) is used to promote connections; between one learner and other learners; between learners and tutors; between a learning community and its learning resources.*
> *(JISC, 2001; Goodyear, 2001; Banks et al., 2003; Goodyear et al., 2005).*

Two other relevant terms are collaborative and co-operative learning. Collaborative learning occurs when participants mutually engage in a co-ordinated effort to solve a problem together (Roschelle and Teasley, 1995: 70). This may be distinguished from co-operative learning where each person is responsible for a portion of the problem solving (ibid.). Networked collaborative learning brings learners together via personal computers linked to the Internet, with a focus on them working as a 'learning community' sharing resources, knowledge, experience and responsibility through reciprocal collaborative learning (McConnell, 1999: 233). The emphasis is also on the learning rather than on the technology (McConnell, 2000; Banks et al., 2003; McConnell, 2006). The researched programme used a form of networked learning, which could possibly amount to networked collaborative learning, although the only task the learners had was to take part in discussions.

1.2.5 The researched programme

The researched programme was an online distance learning programme about online learning aimed at educational professionals who were, or would be, implementing e-learning projects in connection with their work. It could therefore be described variously as work-based learning, continuing professional development or post qualification learning. It was available to learners anywhere in the world, but, in the particular cohort studied, all were based in the United Kingdom.

The programme was accredited by the Open College of the North West with three credits at (the then) Level 4. This was stated to be roughly the equivalent of undergraduate degree level study in Higher Education. It was a prerequisite that students had either previously completed a specific online programme run by the same institution or an equivalent programme or have equivalent experience in e-learning. I was a student on this programme for 9 months from July 2002 to March 2003.

The structure of the programme was as follows:

- 3 months of preliminary work, by email contact and use of computer conferencing. This included creating and posting a personal profile, participating in an ice-breaker activity and agreeing 'netiquette'
- 4 months of intensive computer conferencing whilst at the same time keeping a log of personal e-learning implementation activity and sharing this with peers by email
- 2 months of working offline on the assessment. This was an electronic portfolio showing how the learning outcomes for the programme had been met from a combination of contributions to the online discussions and/or e-learning implementation in the workplace.

The learning outcomes for the researched programme stated that, after completing it, learners should be able to:

- Understand the main characteristics of on-line learning
- Understand the key methods of delivery and types of on-line learning
- Access and deploy appropriate on-line learning resources
- Understand the main learning management issues for on-line learning
- Appreciate the technical requirements and constraints for on-line learning
- Demonstrate the skills needed to facilitate collaborative working/group work online.

The underlying ethos of the programme was stated to be action research, defined as a cyclical process involving analysis, reflection, and application of what has been learnt (Carr, 1986: 1-7; Cohen et al., 2000: 226-241). Participants were encouraged to reflect on what they had learned on the programme and apply it in their professional educational practice.

The programme used minimal online learning materials and the main focus was a combination of online conferences facilitated by a tutor but led by each of the students in turn. Students were expected to be self-directed, drawing from their experience as professional educators, and conducting any research that was necessary in order to participate fully in the discussions. The subjects for the discussions were required to be connected with e-learning but the specific topic was chosen freely by the person leading the conference. At the same time as contributing to the discussions, each student was required to keep a log and make regular entries recording progress on their individual implementation project and to submit this to a given peer for review and feedback. At the end of the programme each student had to submit a portfolio which formed the sole summative assessment.

The conferencing took place on a discussion board using relatively basic proprietary computer conferencing software. The appearance of the discussion board could be customised by the tutor. Its functions included the ability to reply directly to a contributor rather than adding a message to the end of the current discussion. More sophisticated 'threading' was not really relevant as each conference had its own distinct topic and only lasted approximately 2-3 weeks. At times there were up to three conferences open and running simultaneously. Each conference was in effect a thread of the overall topic of implementing e-learning. A particular function enabled participants to see a record of each member of the cohort's number, date and timing of contributions. Previous experience of e-learning was a requirement for admission to the programme, but technical support was available if needed.

The tutor had support from a tutors' discussion board (and its archives) where tutors could post up particular problems or issues to seek the views and advice of others and could also look back to see if anything similar had previously occurred. Tutors also had a guide, a set of templates for emails and the like, which they could adapt if they wished, and facilities for tracking student log ins and contributions. They had some access to other cohorts' discussion boards (at the discretion of the relevant cohort tutor and/or the Course Director).

My research focuses on a period of intensive online conferencing from September 2002 to December 2002 when students participated in a series of seven online asynchronous conferences on subjects of their choice connected with implementing e-learning. Students were required to post a message at least once per month and to lead at least one conference. No other roles (such as scribe or summariser) were allocated. There was a separate social area (for these purposes known as 'the café') where students and the tutor could post messages freely on social issues as well as e-learning or education matters. Prior to the start of the conferences the group was asked to compile collaboratively a set of rules for the conduct of the conferencing. It failed to do so.

There were originally seven students in my cohort (four women and three men), but this was reduced to six part way through the programme because one of the women decided not to continue, leaving three women (including myself) and three men. It was therefore a relatively small group. In addition, there was one male tutor. As well as having access to the online conferences of my own cohort of students I was also

allowed access to those of an earlier cohort, although I only contributed to one of their discussions (which specifically related to my research) as I was not part of that learning set.

1.2.6 Limits and boundaries of the research

The research is concerned with online distance learning and does not cover online learning communities formed in connection with other types of education such as full time university courses. The study is concerned specifically with collaborative learning groups online and not with online learning materials as such. It is not concerned with the technical and technological aspects of online learning, such as comparing particular Virtual Learning Environments (VLEs). It is confined to asynchronous online conferences and is not concerned with synchronous chat. It is concerned with continuing professional development and does not therefore involve consideration of measuring success or value through performance in formal assessment, such as pass rates. Whilst I acknowledge the importance of design in enabling and facilitating collaborative learning, the focus of this study is on learning through online communication and therefore detailed coverage of design issues and evaluation of these in the case of the researched programme is outside the remit of this research.

In view of the size of the group, I do not claim that my findings are generalisable, in the sense of being representative of every on-line group.

1.2.7 Positionality

At the time of starting the EdD programme in 2000 I was employed by an international distance learning College as Course Director of the University of Reading's external undergraduate surveying degree programmes. These programmes were delivered by 'traditional' text-based distance learning. The learning materials were written and face-to-face teaching carried out by internal academics, such as myself, or external tutors (similar to the Open University's Associate Lecturers). In this role I introduced improvements to the way all such distance learning materials were written, having attended writing workshops facilitated by Professor Derek Rowntree of the Open University. I was also part of a group formed to implement e-learning in the College.

In December 2001 I took up the post of Director of Education with an international medical educational charity; a distance learning organisation which delivered post-qualification courses for health professionals, notably nurses, in specialist areas such

as respiratory and cardiovascular disease. My key tasks in this role included obtaining Open University accreditation for the organisation and devising a strategy for introducing e-learning.

In August 2007 I took up my current post of Associate Dean in the School of Lifelong Learning at Coventry University, a senior management role. I lead the academic team and determine the educational portfolio. I have made a significant contribution to creating a Teaching and Learning Strategy for the School, where none had previously existed, including initiating a project to change the predominant educational delivery from face-to-face teaching to online learning. On 1st May 2008 I will become Acting Dean of the School.

I therefore have experience of teaching, curriculum development, academic quality, and operational and strategic management, particularly in the fields of distance and online learning. However, I see myself primarily as a learner, and life, essentially, as a learning opportunity. Accordingly I have experienced formal learning from many angles: student, supporter of another learner, writer of learning materials and of assessments, examiner, programme leader and senior manager. I have been enrolled on one or more educational programmes, without any significant gap, for the last fourteen years as well as constantly learning informally and experientially, particularly as a senior manager.

Strongly influenced by failing my 'A' levels at aged 18, I am passionate about making learning a meaningful, student-centred experience. This is the underlying basis of my professional life and is especially reflected in the methodology (virtual auto-ethnography) and methods (such as semi-structured interviews to hear the students' views of their own learning experience) that I have used in this study. I am fascinated by the concept and culture of online communities, and the role of human discussion and interaction, by text alone, as a valuable aid to learning.

1.2.8 Context of the study

Near the start of the new Millennium, in February 2000, and against the backdrop of the 'Dotcom' boom and an anticipated global market for e-learning, David Blunkett (the then Secretary of State for Education) announced the UK e-University project. UK universities were to collaborate in establishing an e-University (the UKeU) as a single medium for delivering UK higher education programmes over the Internet. The University of Reading, in common with others, took part in consultations and prepared

to contribute. In September 2003 the UKeU launched its first programmes. Five months later, in February 2004, the Higher Education Funding Council for England (HEFCE) announced the termination of the project, despite government investment of approximately £50 million.

At around the time of the start of the UKeU project, the institution where I worked (based at the University of Reading) invested heavily in technology and decided to investigate and pursue e-learning in order to retain its place in the global market in surveying education. Despite the views of its academic staff, and advice from experts, such as the Open University's Robin Mason, the College invested in a proprietary Virtual Learning Environment (VLE), translated all existing text-based distance learning materials into Hypertext Mark-up Language (HTML) and put them online. This approach was essentially technology-driven; it was questionable whether it gave added educational value to students. Among the reasons given for the failure of the UKeU were lack of a learner-centred approach and prioritising technology over pedagogy (House of Commons Education and Skills Committee, 2005). Also relevant were the predominance of a commercial rather than an educational culture leading to a cultural misunderstanding between the two worlds and the gradual taking over of learning issues by business issues (Conole et al., 2006(a); Conole et al. 2006(b)). These factors also appeared to play a significant part in determining my (then) College's e-learning strategy.

1.2.9 Aims

This study aimed to explore how and what people learn through online learning, in order to establish whether this can be a rewarding learning experience. These aims have been informed and influenced by my experience of, and opposition to, an institutional strategy marked by lack of a learner-centred, pedagogically-driven approach to e-learning (described in Section 1.2.8).

The aims were also underpinned by my personal belief that text which distance learners create themselves, collaboratively through dialogue, has the capacity to be educationally valuable, in that it uses the potential of the Internet for 'mindweave', as Kaye (1989: 3-4) puts it, in a way that simply putting existing text onto a VLE does not. This acknowledges the view of Goodyear et al. (2005: 474) that, at the heart of networked learning, lies the human-human connection, whereas the interaction

between people and online materials is not a sufficient characteristic to define networked learning.

1.3 The contribution of this study

The study aims to locate and address some of the gaps in our understanding of the theory and pedagogy underpinning the use of educational technology.

1.3.1 Learner's perspective

It is widely acknowledged that the last decade has seen a substantial increase in a number of forms of technology supported and enhanced education, such as the use of the World Wide Web and computer conferencing (for example, McConnell, 2000; Goodyear et al. 2001). At the time of commencement of the fieldwork for this study in 2002 research into networked learning did not have a long history. Early research in this field tended to focus on evaluating networked learning programmes but then moved on to identifying good practice in networked learning and accounting for the relatively high attrition and non-participation rates in such programmes (Goodyear et al., 2005) and the kind and quality of learning taking place (De Laat and Lally, 2003).

In the late 20th century Hargreaves (1996), amongst others, highlighted the importance of the teacher as researcher. Echoing this, early research into online learning was often conducted from a teacher's perspective (for example, Henri, 1992; Garrison and Anderson, 2003). In these studies the researcher was often a teacher (Goodyear et al., 2005: 476) or not a participant in the researched programme at all. Despite the movement towards acknowledging the active role of students in learning (such as Dewey, 1897, 1916; Vygotsky, 1986; Piaget, 1928, 1959, 1969, 1971) and thus towards student-centred learning (Laurillard, 2002) there appeared to be further room for expressing the student's voice. Consequently there was scope for research which took the learner's perspective and which put the learner's experience at the centre of the research (Goodyear et al, 2005; Light and Light, 1999). One way to do this in my research was to experience online learning first hand as a student and to pursue the idea of the student as researcher. This led to the virtual auto-ethnographic approach taken in this study.

1.3.2 Exploring complexities

Networked learning is multi-dimensional (Jones and Esnault, 2004) and researching it is complex (De Laat and Lally, 2003). For example messages may be interlinked, social and learning processes may be intertwined and the thinking and learning of each

individual is influenced by the thinking of other participants (Gunawardena et al, 1997: 407-409). There are theoretical difficulties in linking language with learning and there is an issue over whether the words people use online reflect some or all of their learning (Goodyear, 2001: 51, 62; De Laat and Lally, 2003: 9 and 20). The choice of focus for this study was influenced by the need for further investigation of the significance of the language used online and its relationship with learning.

Content analysis is frequently used to examine the transcripts of online conferences (Henri, 1992; Lally and De Laat, 2002; Garrison and Anderson, 2003). However, purely analysing the content of conference scripts or only using one technique to do so may result in oversimplification. There was therefore scope in this study to complement these approaches by using other techniques, such as metaphor analysis and critical event recall, to focus on the nature and significance of the visible language used by participants to express themselves. There was also a need to address the issue of the processes which cannot be understood purely by analysing what is said. Accordingly this study explores the significance for learning of 'silence' (i.e. what is not visibly verbalised in conference transcripts).

It has been argued that there may have been over-emphasis of the notion of 'community' in connection with networked learning, one potential consequence being to devalue those who become excluded from it (Hodgson and Reynolds, 2005: 16-17). Furthermore, simply placing students in groups and telling them to work together does not, in and of itself, produce co-operation (Johnson and Johnson, 1989). This study therefore explores the issue of community in online learning and, in particular, the significance of non-participation in collaborative discussions.

1.3.3 Summary

To summarise, the distinctive contributions of this study are its:

- student-centred methodology
- exploration of the role of language, especially metaphor in online learning
- use of metaphor analysis and critical event recall to complement content analysis of computer conference scripts
- exploration of the role of silence and non-participation in online learning.

1.4 An overview of the thesis

This thesis is presented as follows:

A Prologue

This provides an autobiographical account of some of my defining educational experiences as a personal context for this thesis and introduces two key questions which underpin this study: how and what do people learn?

Chapter One: Introduction. Opening the Box

This chapter gives an introduction to the key themes of the thesis and its context and gives details of the researched programme.

Chapter Two: Literature Review. One Vista; Many Views

This chapter explores and critiques the theoretical base for the issues dealt with in this thesis.

Chapter Three: Methodology. Corners first; Sky Last

This chapter explores the virtual auto-ethnographic methodology for this study and gives my justification for this approach. It details the methods used to collect and analyse data.

Chapter Four: Analysis and Discussion. Piecing it Together; Pulling it Apart

This chapter considers and discusses the findings and conclusions to be drawn from the data analysis.

Chapter Five: Summary and Conclusions. Completing the Picture

The final chapter sets out the conclusions from and implications of my research and suggests areas which merit further research as a result of this study.

1.5 Summary

In this introductory chapter I have explained the context for and significance of my research. I have given details of the researched programme, and described the limits and boundaries of this study. I have set out my research questions, outlined the methodology and methods I used and the theoretical basis for this research. I have set out an overview of my thesis.

In Chapter Two I give details of and review the key theoretical bases for this study.

Chapter Two: Literature Review. One vista; many views

Contents

Chapter Two: Literature Review. One vista; many views

2.1 Introduction

2.1.1 Aims

This chapter takes as it premise that, in order to address my research questions, it is important to consider the theoretical roots of online learning, such as how people learn in general and how people learn online in particular. Attention is also given to considering the kind of learning that is experienced online. My aim is therefore to consider both how and what people learn by participating in online conversations. I also examine the theoretical basis for online silence and the use of metaphor in learning in general and online learning in particular.

This chapter is therefore structured to reflect my research questions and the above approach as follows:

Research question	Sections of this chapter where considered
How and what do people learn through online 'conversations'	Section 2.2 How do people learn? Section 2.3 What kinds of learning are there? Section 2.4 How and what do people learn through online conversations?
What is the significance for learning of online silence?	Section 2.5 The significance of silence for online learning
What is the significance for learning of the use of metaphor in online conversations'?	Section 2.6 The significance of metaphor for online learning

Table 2.1 Sections of Chapter 2 where each research question is dealt with

2.1.2 Background

One of the fundamental issues in considering the theoretical basis for online learning is whether it is a new paradigm or whether it merely takes something we have been doing all the time (learning by means of words) and exposes it to a different medium. Mason (1992) points out that it has been argued that tutoring online is *not* a new paradigm and that fundamentally a good teacher is a good teacher in any medium. However, Koschmann (1996: 2) claims that CSCL (Computer-Supported Collaborative Learning) *is* a new paradigm emerging within Instructional Technology (IT) focussing on the use of technology as a mediational tool within collaborative methods of instruction. He

believes that this moves away from the psychological bases for learning and brings the social aspect of learning to the fore (Koschmann, 1996: 10-11). Kaye (1989: 3) appears to agree that CMC (Computer Mediated Conferencing) will ultimately emerge as a new educational paradigm, taking its place alongside face-to-face and distance education. Bearing this debate in mind, this chapter examines theories of learning in general and e-learning theories in particular.

Whether networked online learning is a new paradigm or merely employs a new medium for learning, there seems to be considerable agreement that interactivity is a key element, especially interactivity with fellow learners and tutors. Underwood and Underwood (1999: 13) endorse this view, saying that, in any group that effectively collaborates, members of the group will be able to introduce knowledge and ideas to the others and to accept information from the others. Kaye (1989: 3-4) refers to its enormous educational potential to 'mindweave': that is, to weave together ideas and information from many people's minds, regardless of when and from where they contribute. He goes further (Kaye, 1989: 4) by including synergy (the whole is greater than the individual parts) as one of the most important elements in defining collaborative learning, because it thereby has the potential to produce learning gains superior to learning alone. Dillenbourg (1999: 7) adds a note of caution by pointing out that collaborative learning describes a situation in which forms of interaction are expected to happen which will trigger learning mechanisms, but there is no guarantee that the expected interactions (and hence, learning) will actually occur. He claims that the key to understanding collaborative learning is in the relations between the situation, the interactions, the processes and the effects (Dillenbourg, 1999: 18). This chapter therefore considers the group and collaborative aspects of online learning as well as individual learning.

2.2 How do people learn?

2.2.1 Introduction

According to Säljö (1999: 149) in order to study how people learn, we must have a clear and theoretically grounded definition of what counts as learning; we have to know what we are looking for. In this section I will explore how learning has been defined and viewed over time. In order to do so, I will consider a number of views on the nature of knowledge and learning, including two principal stances: that learning is a concrete thing or product gained from sources external to the learner (Aristotle, 1991) and that

learning is a process internal to the learner (Plato, 1882). I will consider behaviourism and constructivism and the theoretical basis for online collaborative computer conferences conducted entirely by text.

2.2.2 Empiricism, idealism, behaviourism and constructivism

The empiricist-realist tradition of Aristotle regarded knowledge as being a concrete thing gained through observation and exposure to information, that is, from external sources independent of the individual (Aristotle, 1991). People were therefore like empty vessels who gain knowledge by being exposed to information (Säljö, 1999: 147). The idealist-rationalist approach of Plato (1882) views knowledge as an abstract, mental, essentially internal, entity. Plato (1882: 258) refers to 'a process of reason' independent of all sensuous information. According to Plato (1882: 254) if a person looks up and contemplates a carved ceiling you would suppose him to be contemplating it, not with his eyes, but with his reason.

According to behaviourist theories, formulated by Skinner (1953), learners may be regarded as passive recipients of knowledge, empty vessels waiting to be filled with knowledge supplied by the teacher. Freire (1970) calls this 'banking': where the teacher makes 'deposits' of knowledge which students receive, file and store in their 'bank'. The teacher is merely a narrator and the student's role is to memorise the teacher's narrative. Freire (1970) sees this as an authoritarian model which prevents students ('the oppressed') from achieving critical awareness. I would also argue that 'banking' relies on the concept of knowledge as a tangible thing that is capable of being transferred from possessor to recipient.

Behaviourism emphasises the notion of positive reinforcement: people do what they are rewarded for doing (Skinner, 1953). It is often associated with passive learning and is founded on the idea that action is evidence of learning but the learning itself occurs passively. In its extreme form, it is based on a similar principle to that of conditioned reflexes. This is typified by Pavlov's dog, which was conditioned into salivating when a bell rang (Pavlov, 1927). The educational equivalent is the *learning-stimulus-response* sequence in which learners passively respond to the stimulus of being given knowledge by assimilating it. The underlying assumption of behaviourism is that new behaviours are evidence that learning has taken place (Säljö, 1999: 148). Thus, learning is linked to changes in observable behaviour, such as a monkey's ability to

pick up an implement to help it get to food, that is, a change in how it does something (Watson, 1907).

In the 20th and 21st centuries, views about the nature of learning seem broadly to follow Plato's 'process' view (ibid.). Learning has been defined, for example, as a process through which individuals go in acquiring their knowledge, skills, attitudes, values, beliefs, emotions and senses (Jarvis et al, 2003: 4) and as:

> *An active, constructive process in which the learner is building up a personal and contextualised interpretation of experience [and which must be] situated in a rich context...*
> *(JISC, 2001: 75-76).*

This is echoed by the shift away from behaviourist theories of learning to constructivism, in the 1960s, with the application of psychology to learning theories (Paterson and Rosbottom, 1995: 13). The emphasis of constructivism is, therefore, that learning is an active process in which learners construct new ideas or concepts based upon their current or past knowledge. There has also been a change from instruction to learning and from teacher-centred didactic delivery to learner-centred facilitated education. Although Garrison and Anderson (2003: 24) caution against taking extreme positions and making assumptions:

> *E-learning is no more inherently learner-centred than traditional face-to-face learning is inherently teacher-centred.*

The main components of behaviourism (or at least the behavioural theory of Skinner, 1953) were largely discredited in the 1970s, but some of its principles, such as contiguity, repetition, reinforcement through feedback and motivation are still seen as important in processes of learning (Entwistle, 1987).

There is some assumption that the way people learn by online discussions is based on constructivist theories of learning, especially that of learning as an active process. For example, Salmon (2000: 39) states that participants in computer-mediated conferencing create knowledge for themselves through dynamic processes (such as information exchange and knowledge construction) and therefore, in e-moderating, there is very little teaching in the conventional sense of instructing or 'telling'. Indeed, Garrison and Anderson (2003: 8) strongly feel that e-learning should be used as far more than a medium to access content conveniently ('infotainment'); its interactive, constructive potential deserves to be properly exploited. However, this assumption may not always be borne out in practice as it relies on appropriate course design (such as one which encourages learners to engage actively). It may also depend on factors

such as the attitude, beliefs and behaviour of the online tutor and that of the learners, such as their willingness to engage actively in collaborative activities.

2.2.3 Child learning and adult learning

Herrington and Oliver (1995) distinguish between school learning, which is based on knowing, and university learning which is based on doing. Given the complexity of learning, this may seem too simplistic a division and, indeed, Laurillard (2002) asserts that university students experience both experiential and academic learning. She (2002: 21) explains the term 'academic learning' as not learning about the world directly but via others' descriptions of it: second-order experience. This may suggest indirect and passive learning more in keeping with a didactic model of teaching such as lectures. These follow a behaviourist model in that they are teacher-centred with the teacher, as expert, in control of what is learned and, to some extent, how it is learned. Although learners are free to interpret and think about it after the lecture is over, essentially they have a passive role during the lecture. Freire (1970) associates this model with exercise of power and control by the teacher resulting in learner oppression. However, such views ignore the fact that some learners prefer the 'comfort' and undemanding nature of didactic sessions. Some may even view the teacher who adopts a facilitative style as not doing their job by trying to pass the responsibility onto the learners. In addition, university programmes do not necessarily rely entirely on lectures and may also commonly include interactive seminars, workshops and online learning.

Knowles (1970, 1983) claims that adults learn in a different way to children; by andragogy (an adult-led approach, based on helping adults to learn). Adult learners are said to be more independent and self-directed, although still benefiting from a teacher to manage and facilitate their learning; in effect a form of 'directed self-direction' (Knowles, ibid.). However, some adults may be less self-directed than others and it is important to acknowledge the part played by the learner's expectations and perceptions of teaching and learning; for example, even where a programme is stated to be delivered by facilitated group sessions, some learners may not have experienced this and will not know what to expect and how to behave, especially if their previous experience is of didactic models of teaching.

For non-university based adults, it is claimed that learning is based on re-interpreting past experience (Brookfield, 1986: 29). We might therefore expect adult professional

learners with their exposure to the world, especially the world of work, to evidence experiential learning and apply new knowledge to the real world contexts in which they live and operate (Kolb, 1984). For adult learners, who may focus on application, knowledge is not inert, or a product in itself, but needs to be situated in their own work context and be capable of being applied to address their particular work issues or problems. This may lead us to question whether considering the nature of learning as either abstract or concrete is too simplistic; indeed, Kolb's learning cycle (1984) contains both abstract and concrete elements.

2.2.4 Individual learning; learning in social and cultural contexts

Individual learning

Aristotle's approach (1991) essentially centres on the individual internalising knowledge derived from external sources. This may not be obviously linked with that of Piaget (1928, 1959, 1969, 1971), yet they do have a common focus on the individual. Piaget's work, (ibid.), which was principally with children, was based on the idea that human cognitive development is a continual effort to adapt to the environment by assimilating and accommodating new information. Although this is regarded as a constructivist rather than behaviourist view, it is based on the idea that the information is processed by the individual and shaped to fit in with their existing knowledge. The process of learning is therefore more focussed on the individual than groups.

Littleton (1999: 180) suggests that there is a tension between a developmental psychological view that focuses on the individual and a situated approach to learning, which sees it as a collective activity set in a cultural context. There is a connection between solitary work and reflection: development and learning may require both of these (Littleton, 1999: 183). This approach is particularly interesting, given the current emphasis on the socio-cultural basis of learning as part of a community (notably Wenger, 1998).

Whilst Vygotsky (1986) acknowledges that an individual can learn 'solo', he asserts that this ability is limited and that learning best occurs in a 'place' where learners engage in social interaction. That place, known as the Zone of Proximal Development (ZPD), is a metaphorical area representing the distance between where a learner can learn independently and that where s/he needs to be supported ('scaffolded') by a more experienced person. The edge of this zone is the outer limit of their current competency (as shown in Figure 2.1 below) There is some similarity here with the more

recent concept of 'legitimate peripheral participation' (Lave and Wenger, 1991; Wenger, 1998: 100) which concerns acceptance of newcomers into a community of practice.

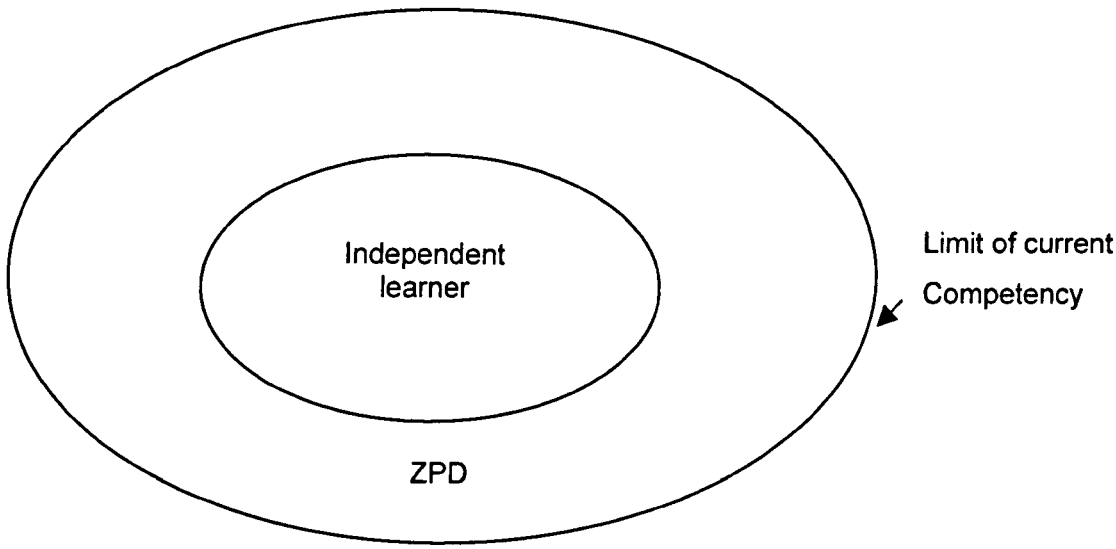

Figure 2.1: The Zone of Proximal Development (ZPD) Vygotsky (1986)

Since Vygotsky's work was done in the context of language learning in children, to what extent can it be said to apply to educational learning among experienced adult professionals? If we followed this Vygotskian/social constructivist view, would we expect the interaction between members of a group of online learners who are equals to result in better quality learning than if they were each engaged in solo learning?

Learning in Social and Cultural Contexts

Following Vygotsky's model of the Zone of Proximal Development (1986), there has been a 're-orientation' in theories of learning away from the individual and their psychology towards seeing learning in its social and cultural contexts (Jones et al., 2007: 178; Jones, 2007: 170). Learning is now often represented as something which happens as part of a community and is bound up in the culture of that community (Bandura, 1977; Lave and Wenger, 1991, Wenger, 1998). This approach follows an apprenticeship model and derives from anthropological studies of groups of workplace learners such as apprentice tailors (Lave and Wenger, 1991). However, Wenger (1998: 146) also suggests that all acts of participation, public or private, reflect the mutual constitution between individuals and collectives. Our practices, languages, artefacts and world views all reflect our social relations.

Social learning theory seems to be almost accepted as a given, but there is an issue over what 'social' means in the context of online discussions. 'Social space' online is essentially metaphoric. It may be difficult, therefore, to recreate the feel of a real common room or café online. It could be argued that being social requires the physical society of people rather than artificially designated created areas such as online cafés. However, this is not clear cut and research into the use of mobile phones by children (Ito et al, 2005) suggests that youth culture is highly social and learning takes place through text messaging even when the people are only electronically not physically together.

Plato (1882: 71) refers to 'a community of feeling in pleasure and pain' which binds all citizens together. In a learning context, the existence of an effective learning community seems to depend on two principal factors: the composition and behaviour of the group. Clearly a critical mass of participants may be necessary in order to sustain meaningful discussion and this is not just a matter of numbers but also of the intensity with which they participate (JISC, 2001: 85). It is probably impossible to 'design' a learning community as such. But it is possible to identify some principles which, if followed, may make community functioning more likely (ibid: 100). Indeed, JISC recommends giving learners guidance about how to participate in group learning (ibid: 87-8).

It might be possible to determine membership of such groups on the basis of the results of pre-course test of personality types such as the *Myers-Briggs* indicator, and/or team roles (such as Belbin, 2004) but in reality there could be practical difficulties, especially where student numbers are low or cohorts are formed on a rolling basis whenever a critical mass is reached. In either case, any such selection would not be feasible.

Wenger (1998) is commonly credited with coining the phrase 'community of practice'. At a fundamental level such communities are collectives of people linked together by a 'framework of doing' (Rock, 2005: 77). According to Wenger (1998: 73-85) such groups exhibit particular characteristics including mutual engagement, a joint enterprise and a shared repertoire. *Mutual engagement* is founded on sustained mutual relationships: interaction which makes them more than an aggregate of people with something in common. *A joint enterprise* is a common purpose collectively negotiated by the members of the group and in which members of the group are accountable to each

other. *A shared repertoire* is shaped by the group's history and available resources and includes routines, words, tools and ways of doing things that the community has produced or adopted in the course of its existence and which have become part of its practice.

Wenger (1998: 125-6) also lists 14 indicators of whether such a community has formed. These include evidence of shared ways of engaging in doing things together, a rapid flow of information and propagation of innovation, the absence of introductory preambles (as if conversation is an ongoing process), knowing what others know, what they can do, and how they can contribute to an enterprise, having a local lore (such as shared stories and inside jokes), having certain styles which are recognised as displaying membership and having a shared discourse, reflecting a certain perspective on the world.

Another grouping of learners identified by some authors is that of a 'learning community'. This is a community where the focus is on members supporting each other in a culture of learning to work towards shared understandings. In such communities no one individual (teacher or student) is responsible for knowing everything (McConnell et al., 2004). There are fewer criteria for its existence than for a community of practice. These include: group definition and negotiation of problems and issues; problems and issues have a personal and professional focus and require negotiation and communication to understand them and an action research approach to investigate them; a collaborative learning journey rather than pre-defined learning outcomes and a high degree of reflexivity (McConnell et al., 2004). There is a climate of giving and receiving feedback, experiential learning and reflection and the tutor is a 'tutor-participant' signalling that everyone takes part in the community (ibid.).

In terms of the sort of learning or educational benefit that occurs within a community of practice, according to Lave and Wenger (1991: 49-50) it is not merely internalisation of information and knowledge but learning that concerns the whole person acting in the world typical of a theory of social practice according to which meaning is socially negotiated. In fact communities of practice can be thought of as shared histories of learning (Wenger, 1998: 86). One of the features of communities of practice is that they are dynamic groups which do not depend on fixed membership: people move in and out (Wenger, 1998: 99). As stated previously, the process by which newcomers become included is known as 'legitimate peripheral participation' (Lave and Wenger, 1991; Wenger, 1998: 100). Although this concept concerns social behaviour, it is based

on the notion of apprenticeship, which is associated with mastering practical skills. Logically, it might therefore be questionable whether it can also be applied to achieving higher level 'academic' learning. Nevertheless, Hodgson and Reynolds (2005) argue that networked learning offers a more promising medium for supporting participative approaches to higher learning than more conventional media, and it could therefore be claimed that online communities of practice offer the potential for their members to achieve higher level learning.

Wenger (1998: 85) states that communities of practice are not intrinsically beneficial or harmful, not privileged in terms of positive or negative effects; he also claims that they address all required dimensions of design for a learning community and describes them as 'organizational assets' (Wenger, 1998: 253). Others argue that such communities have an underlying ethos of conformity with consequent homogenisation of difference resulting in potential isolation and alienation of some learners who, for whatever reason, do not conform. Far from being neutral, then, in terms of their benefit or harm, they may be undemocratic in that they marginalise or silence dissenting voices (Hodgson and Reynolds, 2005; Mann, 2005). Accordingly, there may be an issue over how a community ethos affects people whose preference is to learn alone, such as 'theorists' (Honey and Mumford, 1992). It is also possible that those who are shy, introverted or lacking in social skills may be educationally disadvantaged and that community learning unfairly favours the socially adept, such as extroverts or, as Honey and Mumford (1992) put it, 'activists'. Yet, McConnell (2005, 2006) in his comparative study of three online groups (two of which were harmonious and one of which was characterised by struggle and conflict) decided against suggesting ways in which the 'problematic' group could have been brought on the 'right path':

> *I am not entirely sure what the 'right path' is, or should be, in such networked [e-] learning groups. Nor am I sure that working 'harmoniously' is always educationally beneficial, or that 'good' equates with being 'happy' and productive. (McConnell, 2005: 40; 2006, 186).*

Merely labelling a group of online learners a 'community of practice' or 'learning community' does not guarantee that it will behave as a functioning collaborative group, much in the same way as building a new housing estate and labelling it a 'village' does not mean that it will see it self as one, behave as one or, in fact, be one. Equally, applying such labels does not, of itself, mean that learning, or learning of a particular kind, will occur.

There is evidence that human cognition and learning are situated in the activity, context and culture in which they occur, are developed and used (Brown et al., 1989; Lave and Wenger, 1991). An illustration might be a darts player who can work out what score s/he needs to achieve, and which combination of numbers on the board will match this, but may find it hard to do mental arithmetic in a classroom setting. Brown et al. (1989) challenge the separation of learning ('know what') from how it is learned and used ('know how'), arguing that the situation is not just influential but integral and fundamental.

According to Brookfield and Preskill (2005: 196) education is not so much accumulation of knowledge by students as a process of 'acculturation' into an interpretative community which entails becoming familiar with the language and procedures of the community and developing the critical skills needed to define the boundaries and limitations of such communities. Accordingly, a socio-cultural view of learning sees knowledge not as purely physical or mental but builds on the view that learning is about how people master tools (physical and psychological) for thinking and acting that exist in a given culture or society (Wertch, 1991). Thus, learning is located in the interplay between culture and individuals and implies the transformation of individuals in terms of the nature of the tasks they master (Säljö, 1999: 149) or, as Mayes and de Freitas (2007: 18) put it, learning is related to a need for a positive sense of identity shaped by social forces.

However, this does not take into account the possibility that the culture the learners belong to, or have created themselves, may militate against learning. What if, in an online setting, the very 'language and procedures', which verbalise the culture developed by the group, are not helpful for learning? What if the culture is one of posting messages in a way that focuses on knowledge accumulation and transfer rather than higher levels of learning? What if the online behaviours of some members of the group discourage others from contributing? Surely, where collaboration is required for rich and effective learning, but some people fail to collaborate effectively (or at all) there is a real possibility that this will adversely affect the learning experience of the group?

Mutually exclusive?

In this section, we have considered individual learning and learning in its social and cultural contexts, but, bearing in mind the complexity of learning, are these necessarily mutually exclusive? McConnell (2000: 10) identifies a debate around learning as

something which occurs in the individual's mind (where knowledge and skill are acquired as discreet transferable entities) and learning that takes place in collective, participatory settings. However, he acknowledges that social constructivism views knowledge as something that is constructed in social groups (McConnell, 2000: 9). Lave and Wenger (1991; 15) state that that 'learning is a process that takes place within a participation framework, not an individual mind'. Whereas, classically, learning took place in the individual mind, here it is the community that learns; learning is distributed among the co-participants rather than being a 'one-person act'.

Salomon and Perkins (1998: 1) agree that a certain amount of learning takes place beyond the confines of the individual mind but question whether social learning is any more than individual learning multiplied. Ravenscroft (2003: 11; 2005: 135) critiques Lave and Wenger's view saying that Wenger's work [on communities of practice] has provided a valuable conceptual resource of socio-cultural features that should be considered when designing, cultivating and developing communication in online communities, but the central tenet of this approach is too simplistic. Taking into account the pedigree and support for more cognitive and socio-cognitive approaches, he says, Wenger's claim cannot be accepted without significant qualification. Salomon and Perkins (1998: 1) argue that individual learning is rarely truly individual but almost always entails some social mediation, whether or not this is immediately apparent. Learning therefore takes place in individuals' minds *and* as a social participatory process, giving two distinctively different perspectives on learning. Although each process can be understood in its own right, understanding the interplay yields a richer and conceptually more satisfying picture. Surely therefore, as Ravenscroft says (2003: 11; 2005: 135), learning is a process that takes place within a participation framework *and* an individual mind?

2.2.5 Learning and emotion

There is evidence that, in the process of learning, people experience both thought (cognition) and emotions (affect). It is significant that Bloom et al.'s Taxonomy of educational objectives (1956) includes both cognitive and affective domains. The cognitive domain is concerned with knowledge and intellectual abilities and skills, as well as 'behaviors' (sic) such as concept forming, creative thinking, problem solving, reasoning and remembering. The affective domain is specifically concerned with the emotional aspects of learning such as motivation, enthusiasm, and confidence.

Behaviourism was based on an 'input-process-output' model of learning and this tended to neglect the affective side of learning. However, theorists such as Vygotsky (1986) believe that thoughts are not autonomous and should not be separated from feelings. According to Morgan (1993: 73-74) emotion is an important dimension of deep learning and students who experienced understanding normally felt satisfaction at their achievement. In this way cognition and emotion are closely linked and all students have the potential to achieve 'personally meaningful' learning espoused by Rogers (1969).

Burge (1995: 57) suggests that providers of conferencing technologies (whether audio, computer or video) should pay careful attention to the affective elements of the conferencing environment including tactful phrasing of written text and a comfortable, energised climate. Salmon (2002: 61) agrees with this, asserting that getting to grips with the emotional aspects of interacting with others online is a critical aspect of becoming active learners and successful e-moderators. She further claims (Salmon, 2002: 149) that one of the factors that contribute to online learning and achieving is emotional quotient (EQ). EQ includes self-awareness, management of the emotions, self-motivation, ability to read the emotions of others, ability to handle relationships and taking time for reflection. If participants' EQ is increased the group will achieve more and more comfortably.

Cognitive conflict

Conflict is valued by constructivists as a learning mechanism (Scanlon et al., 1999: 62). Weiss and Dillenbourg (1999: 76) describe this, in the context of collaborative learning, as when two individuals disagree at some point, feel a social pressure to resolve that disagreement and, in so doing, one or both of them changes their point of view. Cognitive conflict, in the context of collaborative learning, may at least give the participants exposure to different points of view; as Harasim (1989: 55) puts it:

> *Collaboration contributes to higher order learning through cognitive restructuring or conflict resolution in which new ways of understanding... emerge as a result of contact with new or different perspectives.*

Young people and adults talk most openly with people they know well and trust but sharing, although valuable, may not push their understanding to the limits; students need the challenge of communicating with others who do not precisely share their preconceptions and views (friends are not challenging enough) (Barnes and Todd, 1995: 95). Crook (1996: 135) believes that it is a convention of conversation that disagreement should prompt discursive moves of justification and negotiation. The

cognitive consequences of conflict might therefore be quite productive. He points out that this allies with Piaget's view (ibid.) that argument can be powerful in that coming into contact with opposing views can be a kind of 'cognitive shock'.

However, such views about the benefits of conflict for learning may ignore the fact that conflict can rouse strong emotions which may affect the cohesion and stability of the group. Differences and arguments may upset individuals and make the task take longer to accomplish by side-tracking the group and taking it away from the task in hand or the main subject area of the conference. Nevertheless, McConnell (2006: 174) suggests that even groups who experience such distracting conflict may benefit from it. Despite the difficulties encountered by a group which had experienced struggle, argument and learning conflict and lack of productivity, he felt that that group still experienced learning, albeit in different ways to two other 'harmonious' groups. The group had learned about itself and learned about the dynamics of working in a group in difficult circumstances, so that members might be better equipped to participate and survive in collaborative groups in the future (McConnell, 2006: 182).

The process of conflict resolution may also have positive benefits for the group. In their classroom-based study, Underwood and Underwood (1999: 12) claimed that social underpinning of co-operative learning (in which small groups work together to achieve a common goal) may facilitate interpersonal relationships which may help processes such as conflict resolution, as well as hypothesis testing, cognitive scaffolding, reciprocal peer tutoring, cognition and metacognition. Littleton and Häkkinen (1999: 24) go further by suggesting that socially mediated conflict resolution may aid productive interaction. Baker et al. (1999) contend that 'grounding' (the process of augmenting and maintaining common ground) is an integral part of collaboration and collaborative learning.

2.3. What kinds of learning are there?

2.3.1 Hierarchies of learning

Learning is often seen in terms of a metaphor of a continuum of height and depth in which pure factual knowledge is regarded as lower level learning and aspects such as reflection, analysis, critique and evaluation are regarded as higher level. Plato (1882: 234) describes a hierarchy of four mental states: pure reason (the highest), understanding (second), belief (third) and conjecture (fourth). He contends that there is

a faculty residing in the soul of each person, and an instrument enabling each of us to learn (Plato, 1882: 240). A 20th century example is Bloom et al.'s Taxonomy (1956) in which learning is split into three domains: the cognitive, affective (emotional) and psycho-motor. A pyramid may be used to depict elements of the cognitive domain (known as 'abstractions') which range in 'height' from knowledge (cognition) at the base of the diagram through to evaluation at the apex (see Figure 2.2 below).

According to Marzano and Kendall (2007: 6-8) comprehension (or understanding) means taking in new information by communication; application is correctly using an abstraction in a situation in which no mode of solution is specified; analysis is detecting the relationship of parts and the way they are organised; synthesis is putting together parts to form a whole from which new knowledge structures can be generated; evaluation involves making judgments about the value of knowledge. Higher order learning skills (such as problem solving, evaluation and synthesis) require the learner to be self-regulated, and to demonstrate initiative and independent thought (McLoughlin and Oliver, 1998: 129-30).

The Taxonomy has been criticised for oversimplifying the nature of thought and its relation to learning (Furst, 1994). The authors themselves acknowledge that its hierarchical nature may not always reflect the way in which, or order in which, types of learning may take place. For example, a person may not necessarily experience evaluation last in the course of solving a problem (Bloom et al., 1956: 185). The Taxonomy also omits important forms of learning such as reflection and metacognition; indeed, the latter has since been included in a suggested new taxonomy (Marzano and Kendall, 2007).

Metacognition is defined as looking down on your own cognition; standing back from your current task and looking at it from a higher level (Goodyear, 2001: 59). It is sometimes described as 'thinking about thinking' or 'learning how to learn'. According to Flavell (1976: 232):

> *Metacognition refers to one's knowledge concerning one's own cognitive processes and products or anything related to them. For example, I am engaging in metacognition if I notice that I am having more trouble learning A than B..... if I sense that I had better make a note of D before I forget it.*

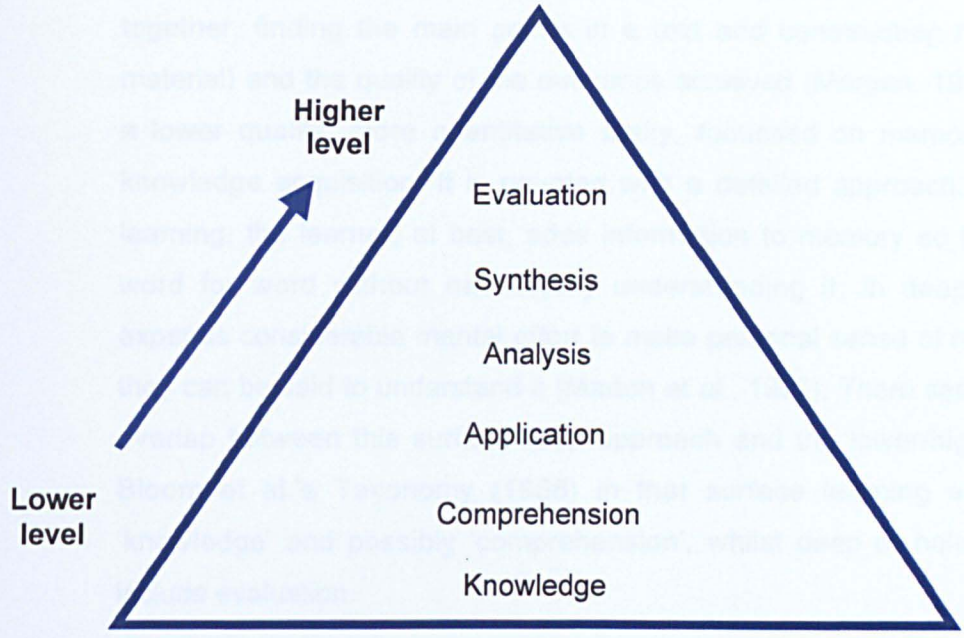

Figure 2.2: Bloom et al. (1956) Taxonomy of educational objectives.

Metacognition is generally regarded as having the potential to enhance the learning experience. If we know more about how we think and learn we should be able to learn more effectively and more confidently in future and perhaps also to be better able to help others learn. Dewey (1916: 68) placed importance on the concept of 'continuity' of learning: that one piece of learning should lead to another; an educational experience should create the capacity for further learning. As such principles seem to lay the foundations for lifelong learning, it seems possible, as well as desirable, to create the conditions in which metacognition is more likely and hence to include it in hierarchies of learning.

Despite its shortcomings, Blooms et al.'s Taxonomy (1956) has been widely used, and, may still be regarded as one tool in the difficult task of categorising, and making sense of, the complex subject of learning.

2.3.2 Deep and surface learning

The metaphors 'deep' and 'surface' learning have also been used, particularly in the context of higher education in the 1970s and 80s (Marton and Säljö 1976; Biggs 1978, 1999; Entwistle and Ramsden, 1983; Ramsden, 1987). 'Deep' learning has a more meaningful, qualitative aspect (for example understanding the underlying meaning of something). It is also equated with a 'big picture' or more holistic approach. Deep learning includes both a deep approach taken by the learner (such as relating ideas

together, finding the main points in a text and constructing meaning from learning material) and the quality of the outcomes achieved (Morgan, 1993: 72-76). 'Surface' is a lower quality, more quantitative entity, focussed on memorising information and knowledge acquisition. It is equated with a detailed approach. In shallow or surface learning, the learner, at best, adds information to memory so that they can repeat it word for word without necessarily understanding it; in deep learning the learner expends considerable mental effort to make personal sense of new information so that they can be said to understand it (Marton et al., 1997). There seems to be considerable overlap between this surface/deep approach and the lower/higher level approach in Bloom et al.'s Taxonomy (1956) in that surface learning seems very similar to 'knowledge' and possibly 'comprehension', whilst deep or holistic learning may well include evaluation.

The deep versus surface approach may well appear on the one hand too vague and, on the other, like Bloom et al.'s Taxonomy (1956) guilty of over simplification. For example, a 'deep' approach has been defined as one which includes a search for personal meaning, based on intrinsic interest, curiosity and a desire and ability to relate the learning to personal experience (Prosser and Trigwell, 1999). Yet, as Haggis (2003: 94) points out, 'meaning' itself is a complex concept which can 'mean' different things in different subject contexts, as well as being personal to a particular individual. It may follow that different types of knowledge and learning require different contexts or learning environments.

It is interesting that Plato valued a good memory as an essential attribute and prerequisite of a philosopher (1882: 200). It has been pointed out that the lack of books in medieval times led to a need to emphasise and value learning by rote (Somekh, 1996: 5). Indeed, research involving Chinese and Nepalese students, who have a tradition based on rote-learning, shows that these students are still capable of high achievement (Haggis, 2003: 93). Terms like the 'knowledge economy' and the 'knowledge society' may be interpreted as focusing on lower level learning. However, now that large amounts of information can be stored and retrieved electronically, the emphasis has shifted onto what can be done with the information. Application, reflection, critical thought have therefore become more important. Accordingly, Gagne's (1965) hierarchy of learning places particular value on such skills as problem-solving at the higher end. In addition, Marton and Säljö (1976) reported that students who took a deep learning approach to their studies gained a thorough understanding of the subject

whereas those who took a surface approach did not understand all the concepts involved.

Prosser and Trigwell (1999: 4) claim that, 'without exception', deep approaches to learning and 'ways of understanding which include more complete ways of conceiving something' are more likely to result in high quality learning outcomes. However, Entwistle and Ramsden (1983: 177) admit that students who use a 'strategic approach' (such as selective revision and seeking clues as to exam questions) could obtain nearly as high grades as those who employed deep learning.

Garrison and Anderson (2003: 3-4) assert that students in higher education are not receiving the educational experiences they need in order to develop critical and self-directed skills due to the 'industrial', passive-information-transfer nature of lectures. However, as stated earlier, this fails to take account of the fact that higher education programmes are not necessarily delivered by lectures alone.

Networked online learning is interactive, collaborative and constructive, and has the potential to give students access to differing perspectives and ideas and to create what may be called 'distributed intelligence', a 'digital matrix', or a 'learning ecology' (Brown, 1999). Marjanovic (1999: 129) acknowledges that collaborative learning produces outcomes which go beyond knowledge exchange by encouraging construction of knowledge, 'deeper' understanding and greater skill development because it engages students dynamically in the learning process and moves them away from being passive observers. However, this presupposes productive collaboration and effective student engagement which may not always be the case (as in McConnell's study (2005, 2006) cited earlier). Marjanovic (1999: 129-130) also acknowledges that collaboration 'makes public our own learning' and therefore may present problems for shy or passive learners and second language speakers. Haggis (2003: 94) claims that it may be harder in practice to design educational interventions which induce higher/deep level rather than surface learning. Design may fail to take sufficient account of the student's perceptions and it is almost impossible to 'induce' a deep approach if it is not 'already there' (ibid.). Therefore it seems important not only to provide the right conditions to encourage higher learning, but also to manage students' perceptions by helping them to understand the potential of learning so that they are not 'constrained by their conceptions of learning' (Morgan, 1993: 58 and 78).

2.4 How and what do we learn through online 'conversations'?

2.4.1 Learning through conversation

This thesis is set against the backdrop of the shift in emphasis from behaviourism to constructivism; a change which appears to be underpinned by a belief that students do not learn best passively (for example by listening in a lecture theatre), but by actively engaging with the issues and constructing their own knowledge. This may be mirrored by a parallel change of emphasis: from listening (which is essentially passive) to talking (active). The title of this thesis is intentionally provocative in its use of the term 'conversations'. It begs the question whether we can learn purely through communicating by talk (conversation) or whether, in order to learn effectively, it is necessary to have a special form of talk involving an element of debate (discussion), or even a kind of elevated, educated discourse. It also considers whether there is a significant difference between real talk and the metaphorical conversation (that is, text) that occurs online.

The medium of talk, together with critical thinking, is now seen by a number of theorists as the bases for collaboration and the formation of learning communities; hence communities of discourse (Mercer and Wegerif, 1999: 88), communities of inquiry (Garrison and Anderson, 2003) and communities of practice (Wenger, 1998). However, conversation may not automatically result in collaboration; indeed, some commentators believe that conversation is inherently linked with antagonism and 'to talk is to fight' (Lyotard 1984). Where talk leads to such strong emotions as 'antagonism', it is important to explore whether this can be linked with cognition.

The idea of 'learned conversations' to promote education is hardly a novel one: Plato's Republic (1882) was written in the form of such a conversation between friends (notably Socrates and Glaucon) and it was normal in those times to teach by walking around having discussions; hence the familiar term, pedagogy. A more recent example, from higher education, is Laurillard's four-part 'conversational model' (2002). Laurillard strongly criticised the existing system of undergraduate teaching based on didactic lectures, describing it as 'farcical' and 'insanity' (ibid: 3) and her work is set in the context of the movement for the professionalisation of university teaching following the Dearing Report in 1997 and the creation of the Institute of Learning and Teaching (now the Higher Education Academy) in 1999. Her model is a representation of the learning process which depicts and defines its essential components. In the framework learning is represented as a relationship between the learner and the world, mediated by the

teacher and based on an iterative 'conversation' between them, involving goals, action, theory and feedback by each party. This dialogue involves discussion between the teacher and the learner; interaction; adaptation and action by the learner; and reflection by both teacher and learner (Laurillard, 2002: 86-89). Her view is that, as a fundamental principle, a university is defined by the quality of its academic conversations, not by the technologies that service them (Laurillard, 2002).

According to Dillenbourg (1999: 4) the concept of thinking as a 'dialogue with oneself' is not new and was argued by Piaget (1928, 1959, 1969, 1971) and Vygotsky (1986) amongst others. Laurillard's model was set against a background where undergraduate university teaching was on a many-to-one basis and resources were controlled rather than offered (2002: 2); the power of online learning is in its ability to facilitate a wider, many-to-many, discourse. Accordingly Boyle (1998: 82) asserts that it is certainly possible for students to learn actively, and to achieve meaningful learning, by discussing problems with others and working collaboratively with them to reach solutions. Säljö (1999: 150) appears to agree with this, suggesting that knowledge is not just stored in our minds; it circulates between us when we communicate with each other in concrete activities. More importantly, it is created when we convert our experiences and reflection into language and make them public. However, Säljö (ibid.) believes that, although the main medium for communication is ordinary talk, it is in creating specialised forms of discursive practice that we allow for precise communication about the world in specific settings.

Is language purely the expression of thought, or something more? According to Dewey (1897) education is a social process and language is primarily a social instrument. Crook (1996: 123) comments that language is commonly regarded as more than a means of communication but also as the point at which meanings get created and the resource by which intelligent action itself may be directed i.e. such talk supports cognitive development. According to Mercer (2000) language (i.e. talk) may be seen as a social way of thinking. If so, then surely talk itself has merit in terms of facilitating a type of learning? This has the potential to become higher level learning too if thinking can be turned into metacognition or reflection. In their study of 13-year old schoolchildren of average ability, Barnes and Todd (1977, 1995) highlighted the importance of small group discussion for active, collaborative learning. They found that when the children worked together in groups to accomplish tasks set by the teacher but undirected by the teacher, they displayed cognitive and social skills by talk alone. On principle this may also apply to a group of adults, albeit that they may be of above

average ability and working online (rather than face-to-face) with an e-moderator rather than a teacher.

Garrison and Anderson (2003: 6) see the compelling advantage of e-learning as its capacity to support reflective text-based interaction without constraints such as time and distance. Mercer and Wegerif (1999: 88) go further and suggest that it is possible to form a whole community which uses the medium of talk as a kind of reasoned, social and critical thinking; like the context-specific educated discourse which is used by groups of lawyers or scientists. They identity three types of talk (Mercer and Wegerif (1999: 85):

- *Disputational* (characterised by disagreement and individualised decision making, where there is not much collaboration or constructive criticism, short exchanges, assertions and counter-assertions),
- *Cumulative* (where speakers build uncritically on what the other has said, characterised by repetition, confirmation and elaboration), and
- *Exploratory* (where participants engage critically but constructively with each others' ideas).

They suggest that any one of these three types may be socially appropriate and effective in particular social contexts (Mercer and Wegerif, 1999: 88). McConnell (1995: 126) agrees that:

> *A social, conversational context is important in the process of learning since it supports the clarification of ideas and concepts through discussion; develops critical thinking...*

Although Mercer and Wegerif's (1999) work was based around studying children collaborating in a classroom setting, they suggest that exploratory talk embodies critical thinking and is essential for participating in a 'community of discourse' comprising adult professionals (Mercer and Wegerif, 1999: 85-88). Their work is useful in that it distinguishes learning through discussion from everyday social chat, makes a specific link between child and adult talk and emphasises the importance of talk and context for learning.

McLaughlin and Oliver (1998: 129) emphasise the importance of communication exchanges between teachers and learners as they construct understandings. They assert that learning is facilitated through purposeful dialogic exchange, verbalisation of thought processes, reciprocal understanding and negotiation of meaning, all of which are mediated by social interaction and language. This seems to accord with Laurillard's

view (2002: 86) that learning depends on communication and 'mediation' by the teacher (see details of her 'conversational framework' explored earlier in this section).

Through formulating information or ideas in their own words, and receiving feedback and evaluation on these formulations from peers, knowledge, thinking skills and meanings are socially constructed (Harasim et al., 1995: 30). Brookfield and Preskill (2005) agree and see discussion as a valuable way of learning in that it exposes learners to other points of view and therefore fosters collaboration and facilitates a richer learning experience. They feel that discussion is fundamentally democratic, and therefore promotes human growth; and that it promotes higher level learning, such as synthesis and reflection (ibid: 21-2). Where learning is social and discussion is used, they claim, students are more likely to come back for more in the future (ibid: 196).

Overall there seems to be some blurring of distinction between conversation and discussion in the context of learning and the terms seem to be used interchangeably. However the ingredients may well be more important than the terminology.

2.4.2 Learning through 'conversations' online

An important issue for discussion-based online learning is whether there is any difference between the value of face-to-face discussion and online discussion in terms of learning. Is there a distinction, educationally, between talk and text? Is it generally the case, as Harasim et al. (1995: 50) report (in evaluating the Computer Supported Intentional Learning Environment in Ontario) that online students greatly surpass those in ordinary classrooms on measures of depth of learning and reflection, awareness of what they have learned or need to learn, and in understanding of learning itself?

The written word may not be a poor substitute for speech, but a useful medium for expression in its own right (Feenberg, 1989). Putting ideas or information into written form requires intellectual effort and generally aids comprehension and retention. Formulating and articulating a statement is a cognitive act, a process that is particularly valuable if comments such as "I don't agree" or "I do agree" are followed by "because..." (Harasim et al., 1995: 29). Knowledge is something that emerges from 'active dialogue' among those who seek to understand and apply concepts and techniques to problems and/or formulate ideas into words, building on the reactions and responses of others (Hiltz, 2005: 11-12). Kaye (1992: 3) points out that one of the assumptions made about collaborative learning is that much significant learning and

deep-level understanding arises from conversation, argument, debate, and discussion (often unplanned, sometimes structured) amongst and between learners, peers, colleagues, experts and teachers; learning is essentially a communal activity involving the social construction of knowledge.

However, Burge (1995: 158) emphasises the need for relationship building to compensate for the lack of vocal cues in computer conferencing. Focused contributions may prevent information overload and the effect of fragmented thinking which can result from the relative ease of sending messages to peers in this text-strong medium in which one person's freedom to write is another's deluge of information (ibid.). Others support this view on the basis that if students feel they had to contribute to too many conferences in the time available, this could lead to difficulties in studying each subject to sufficient depth. Learners may get a broad view of all the subjects but lack an in-depth knowledge of them (Buckner and Morss, 1999: 37). This suggests that having too many online discussions may lead to surface/lower level rather than deep/higher level learning. Yet, according to McLoughlin and Oliver, (1998: 131) overall, there is compelling evidence of the benefits of verbal interaction and communicative task-related talk in producing higher order learning within computer mediated learning environments.

Marjanovic (1999: 129-30) suggested that collaborative learning in a classroom setting may cause problems for those who suffer from 'stage fright' and are too shy to speak out in front of their teachers and peers. Research into the Skywriting online project for psychology undergraduates at Southampton University came up with conflicting views about how this applied in online settings. On the one hand some students who were normally shy or self-conscious felt that typing a message online was preferable to face to face talking, on the other hand, some felt equally 'exposed' by putting their ideas or questions in writing especially where, in the words of one student:

> *...the whole world can see you making a real wally of yourself.*
> *(Light and Light, 1999: 170-171).*

Constructivist theories seem to favour including tasks in online programmes because concepts are best understood by action and application rather than through simply receiving instruction; on the basis that online learning is an active (and, indeed interactive) process rather than a passive one. Thus, Barab et al. (2001) emphasise the importance of designing programmes in a way that encourages sociability, in particular the need to build in structures and tasks which encourage and support group

collaboration. Learner 'activities' in traditional distance learning can be translated into online programmes as tasks or 'e-tivities' (Salmon, 2002). However, what happens if an online programme involves purely asynchronous computer conferencing with no face-to-face contact and no specific task other than to lead and participate in conversations online? What is the learning worth of purely participating in online discussions? Tasks are normally associated with solving a problem or collaborating to produce something; so, can talk be a task and can conversation be collaboration?

2.5 The significance of silence for online learning

2.5.1 What is silence?

According to Sifianou (1997: 73) silence is an ambiguous form of communication which can take a variety of forms and perform a variety of functions. Silence may be variously considered as: absence of sound (its simplest form), refraining from speech, withholding knowledge (such as a question unanswered) or failure to communicate (such as refusing to greet someone) (Jaworski, 1997: 3). It can also be used as a device to enable a speaker to gain or lose conversational status or for dramatic effect (ibid: 23). Cognitive silence is the absence of something that is significant: the absence of something which should be present (Sifianou, 1997: 64).

It has been said that silence is a necessary part of conversation: silence can exist without speech, but speech cannot exist without silence (Picard, 1952: 28). In normal conversation, the participants take turns in speaking, with pauses in between their contributions. The length of these pauses is related to culture, for example in some cultures these pauses are longer than in others (Sifianou, 1997: 64). Silence in conversation may signify deference (for example, to someone socially superior) but it is not always a sign of powerlessness (ibid: 68, 72).

2.5.2 Silence as a space for learning online

In face to face teaching situations it cannot be expected that all the learning will take place in the classroom or lecture theatre. According to Light and Light (1999: 175) observable interactions are likely to have unobservable determinants in the histories of individuals, groups and institutions. It has been asserted that researchers studying collaborative work, in the context of extended authentic activity, need to interpret and understand the role of periods of apparent inactivity as well as observable activity

study, even if it is difficult to conceptualise the role of 'productive ambiguity' (Littleton, 1999: 182).

It seems likely that participants in collaborative discussions will not verbalise all that they are learning and that learning takes place both in and outside of the discussions. Both those who participated fully in the discussions and those who did not, may therefore have learned in the silence outside of the discussions.

Silence is frequently associated with reflection. Reflection is said to be particularly important to professionals; both reflection after an event and reflection-in-action (a kind of spontaneous research) (Schön (1983); Brookfield (1995)). According to Wenger (1998: 217) the combination of engagement and imagination results in reflective practice, combining the ability to engage (identify) with an enterprise and to distance it (view it in context with the eyes of an outsider). Buckner and Morss (1999: 37) acknowledge that reflective thought is very important to a rich learning experience and recognise that in online learning students need (and by definition are able) to obtain sufficient time to reflect on issues raised in a debate before making their own contribution.

According to Harasim et al. (1995: 194) online learning promotes reflection in that students can review and reread what has taken place as often as is needed for understanding and retention. They can take as long as they need to reflect on what they are reading and decide what questions to ask or comments to contribute to the discussion. Research at Southampton University, into the online 'Skywriting' project (Light and Light, 1999: 170) supports this view and suggests that computer conferencing is good for quiet, reflective people. This particularly applies to those who wait for the argument to develop and tend to spend a long time thinking about it, or would like to go and research the issue before saying anything. However, this shyness can also cause some people to be too inhibited to put their ideas or questions, albeit in writing rather than face-to-face. In addition, as Hammond's research (1999: 357) found, there are built-in paradoxes: the permanence of online messages may help reflection, but also inhibits potential contributors who do not want their messages available to permanent scrutiny. Similarly, the asynchronous nature of online conferences encourages participation, in that people can take part as and when they wish, but also makes it easier to opt out of writing a message as contributing can be endlessly deferred.

2.5.3 Is online silence anti-social?

Light and Light (1999: 163) argue that, in face to face conversation, speaker and listener share organisational responsibility, whereas in computer-mediated exchanges students may feel less obligation or pressure to respond than when interacting face to face. Harasim et al. (1995: 275) assert that in a text-based environment it is necessary to make a comment in order to be seen as present. Kaye (1989: 23) says that in online communication a response; any response. is generally interpreted as a success while silence means failure. Such views may account for the phenomenon of online non-participation.

There are two principal types of non-participation: (a) logging on to a conference and reading other contributions to a discussion but not posting up a contribution yourself (commonly known as 'lurking') and (b) not reading the discussion threads at all (for example by failing to log on). Feenberg (1989: 24) points out that asynchronous conferencing technology may mean that unusual delay is interpreted as a sign of rejection or indifference since there is no mechanical excuse for silence. He describes online silence as 'a message that is both brutal and ambiguous' (ibid: 34). The use of derogatory terms like 'lurking' tend to suggest that non-participation, particularly in the context of online collaborative learning, is fundamentally anti-social. However, Wenger (1998: 57) claims that even drastic isolation from the world (such as a monastic existence or solitary confinement) is given meaning by social participation; our engagement with the world is social even when it does not clearly involve social interactions with others. Citing the example of an individual preparing a presentation alone in a hotel room, he says that, although this does not seem fundamentally social, it is because the audience is 'there' as the person tries to make points clear to them, and their colleagues will be looking over their shoulder, representing accountability to the professional standards of their community. In addition, he says that even our most private thoughts make use of concepts, images and perspectives that we understand through our participation in social communities (Wenger 1998: 146).

Silence can mean a point of view not heard (Hall, 1997: 195-6). Whereas, in a conversation, avoiding turn taking would be breaking a social norm; in online conversations, without the benefit of body language, it may be difficult to know whose turn it is. In this context, silence can be difficult to interpret. Power may be exercised through silence and is certainly associated with communicative encounters. For example it is argued that social power asymmetry between the sexes is generally

reproduced in communication: men dominate (for example, by setting the tone and declaring themselves expert) and women submit by not challenging them (Dendrinos and Pedro, 1997). One way of exerting dominance and power in normal conversation is by interrupting. This is not directly possible in asynchronous computer conferencing where the participants posting messages are separated in time as well as place. In this situation, silence (seemingly the antithesis of interruption) may in fact, be the equivalent. Being silent is ignoring the poster's anticipation of a reply. In this instance, silence itself may speak.

The concept of 'legitimate peripheral participation' (Lave and Wenger, 1991; Wenger, 1998: 100) suggests that it may be 'legitimate' (i.e. acceptable) for a 'lurker' to read other participants' messages, by way of apprenticeship, before becoming a full participant by contributing to online conferences. Brookfield and Preskill (2005) suggest it is important not to mistake silence for inertia or disengagement and point to the value of reflective silence (ibid: 65). They believe that email (and, by analogy, this would include online learning) allows time for reflection and is a less anxious experience for many introverted or intimidated students (ibid: 122). They argue that silence often enormously enhances learning by providing students and teachers with time to stumble on relationships between previously disconnected ideas (ibid: 179). They also imply that students are 'saying too little' only when it becomes a problem for their learning (ibid: 178).

However, in the case of collaborative online learning, this fails to take into account the possible effect on other learners. Too much silence (whether 'lurking' or total non-participation) may hinder the learning of the rest of the group who then cannot benefit from the very sharing of diverse opinions that the authors extol (Brookfield and Preskill, 2005: 3, 4 and 9). In this sense it could be argued that non-participation is fundamentally undemocratic as one person's autonomous decision not to post messages (despite the rules of the course on the minimum postings required) can impoverish (decrease the richness) of the others' learning experience. In that case, students may also be 'saying too little' when it becomes a problem for the learning of others.

2.6 The significance of metaphor for online learning

2.6.1 Introduction

Metaphor is applying a descriptive term to an object or action to which it is imaginatively but not literally applicable. The essence of metaphor is expressed by Lakoff and Johnson (1980: 5) as understanding and experiencing one kind of thing in terms of another. An example is the term 'learning journey', where the concept of learning is associated with that of a journey, although, of course, learning is not literally a journey. Metaphors are frequently used by teachers and other professionals to link concepts familiar to learners with those which are not.

The significance of using metaphor is rooted in the classic philosophical debate between logical positivism and relativism. Science is characterised by an emphasis on physical reality and language which is precise, literal and unambiguous. By contrast, a relativist approach sees knowledge of reality, including that occasioned by language, as going beyond the information given. Taking a positivist perspective, metaphor may be regarded primarily as a linguistic ornament; whereas, latterly, theorists such as Lakoff and Johnson (1980) saw it not merely as 'frilly speech' but as evidence of cognition.

Networked collaborative online discussions are increasingly used to connect remote learners in diverse locations. In the social networked generation, especially in the context of education, much reliance is placed on participants' ability to express themselves and to learn by text. Studying the words and expressions such participants use to communicate with each other may help us understand the significance of language for learning and thus develop appropriate pedagogies for the Web 2.0 world.

2.6.2 Metaphor and cognition

It is asserted that language is what sets humans apart from animals by enabling a sharing of mental resources and a combining of mental capacities (Mercer, 2000) and that communication is at the heart of all forms of educational interaction (Garrison and Anderson, 2003: 2). A cognitivist view of writing sees text production as a dynamic process that occurs in the writer's mind (Johnson-Eilola 1998: 21). In the case of online discussions, it therefore seems significant that the very word 'discussion' is metaphorical: communication is actually by the written word (text) rather than by talk.

One of the key tenets of cognitive linguistics is that metaphor is not just a surface ornamentation of language but a phenomenon of human thought processes (Cameron 2003: 2). Metaphors are conceptual in nature and are among our principal vehicles for understanding (Lakoff and Johnson 1980: 159). It follows that metaphor, and the mental processes it entails, are basic both to language and cognition (Goatly 1997: 1). This tends to suggest that when a person uses metaphor they experience cognition. Does the use of metaphors by online learners reveal anything about the learning occurring? Do metaphors have the potential to be useful in online learning rather than ornament?

Lakoff and Johnson (1980: 115) claim that because so many of the concepts that are important to us are either abstract or not clearly delineated in our experience (such as emotions, ideas and time) we need to get a grasp on them by means of other concepts that we understand in clearer terms (such as spatial orientations and physical objects). This may be supported to some extent by the fact that key theorists themselves have relied on metaphor to describe (and presumably enable understanding of) their concepts. These include Plato (1882) (the cave), Vygotsky (1986) (Zone of Proximal Development), Bloom et al. (1956) (levels of learning), and arguably Wenger (1998) ('communities' of practice). It is ironic that, following this reasoning, the concept of learning, generally seen now as an abstract process, may need to be understood by being related to something concrete.

Whilst metaphor may be a psychological tool (Vygotsky, 1986) or a cognitive instrument (Black, 1993), can it also be a useful pedagogic device? According to Cortazzi and Jin (1999: 161) metaphors invite interaction and organise concepts. Ortony (1993: 5, 13) suggests that something new is created when a metaphor is understood, and that metaphors afford a different way of viewing the world. Petrie and Oshlag (1993: 580-584) conclude that metaphors are not just ornamental, but necessary to provide a basic way of passing from the well known to the unknown, i.e. an aid to acquiring new knowledge. They argue (ibid: 580, 583) that metaphor use enables transfer of understanding from what is well known to what is less known ('leaping the epistemological chasm') in a vivid and memorable way. Indeed, Cameron (2003: 36) suggests that the vivid use of language may aid recall. On these bases, can metaphor use therefore aid cognition on the part of the recipient (the learner) and can it positively enhance the learning experience?

2.6.3 Metaphor and emotion

Importantly, Bloom et al. (1956) acknowledged the emotional aspect of learning by including an affective (emotional) domain in their three domains of learning. According to Kövecses (2000: 192) language is not only a reflection of experiences but it also creates them: we say what we feel and we feel what we say. Figurative language can define and even create emotional experiences for us (ibid: xii). We express conscious feelings through language and studying language can therefore reveal a lot about emotion (ibid: xi). How is the use of metaphor online linked with expression of emotion and learning? Is there coincidence between metaphor use and incidences of emotion and cognition online?

In postmodern cyberspace, even if words are 'disembodied', they can still hurt, as anyone who has experienced email 'flaming' will know. It is possible to feel tangible anger from offensive words whether emanating from a computer screen or from the mouth of someone materially present (Sanchez 1998: 99). According to Stone (1995) in face-to-face communication there is 'wide bandwidth' in the sense that many different modes of communication and expression are conveyed at the same time (such as speech, gestures, facial expression and tone). Arguably, emotions may be heightened online as 'narrow bandwidth' (i.e. relatively low amount of information exchange in unit time) is experienced where there is communication by text alone. Participants may therefore be forced to raise their level of interpretive engagement, creating and absorbing maximal meaning from minimal symbology and the situation may be ripe for misinterpretation and misunderstandings (Stone, 1995).

As we have seen previously, cognitive conflict may be a positive thing, in terms of promoting learning. Craig et al. (1998: 124) have suggested that, in an online setting, there may be more opportunity for learners to feel and express disagreement: freed from the constrictions of polite, non controversial, face to face conversations, they may feel less socially constrained. This lack of constraint promotes what the authors term 'a rhetoric of the contact zone' which allows beliefs to be exposed, examined and possibly modified, especially through the clash of divergent opinions. Although potentially 'conflictual and dangerous', therefore, Internet based computer moderated conferencing can be pedagogically positive and productive. Taken further, if we foster a community among our students in which conflict is valued and embraced this may form the basis of a Vygotskian Zone of Proximal Development in which the development of the individual is enhanced by collaboration with others (ibid: 143).

Is it feasible that metaphor is used to make up for the lack of body language online, especially in the case of emotions such as anger, which could provoke a strong reaction if not tempered by the vehicle of a euphemistic metaphor? Cameron (2003: 23) suggests that metaphor may have an affective function, for example in giving negative feedback to a learner in such a way as not to impact on their confidence by suggesting publicly that they have given a wrong answer (e.g. you are on the right track as opposed to you are wrong). Drew and Holt's research (1988) shows that metaphors are frequently used when making complaints (e.g. it was like banging my head against a brick wall).

2.6.4 Metaphor, gender and identity

Brookfield and Preskill (2005: 3) regard discussion as fundamentally democratic, as discussion and democracy have a common purpose of nurturing and promoting human growth. McConnell (2000: 105) concludes that computer supported co-operative learning allows for a more democratic form of participation by women in some respects, such as equal opportunity to direct and participate in online conversations.

According to Turkle (1995) gender is socially constructed and when we step through the screen into virtual communities, we reconstruct our identities on the other side of the looking glass. In this world you are who you pretend to be. The self is multiple, fluid and constitutes in interaction with machine connections; it is made and transformed by language. This view is ostensibly echoed in the quotation used by Jones (2005: 105) citing the caption from a famous cartoon in the 'New Yorker': 'On the Internet nobody knows you are a dog' (Steiner, 1993); referring to the potential of internet communication for anonymity. Others believe that writing can transmit the body (Argyle and Shields 1996) and that, when we write, our words embody ourselves in significant ways (Miller, 1991). Indeed, Jones (2005) acknowledges that there may be a question over just how much anonymity the Internet in fact provides to users. Land (2005: 149) takes up this point, referring to the 'incorporeal fallacy' of assuming that cyber learning is disembodied. If a person's real identity (such as their gender and values) is 'visible' through the words they use online, there may be a risk to the democratising potential of online learning.

2.7 Summary

This chapter considered the theoretical basis for networked online learning by exploring a number of aspects of how people learn. It began by considering two opposing views: that learning is a process (Plato, 1882) and that knowledge is a concrete thing (Aristotle, 1991), concluding that the former is generally the preferred view. It went on to consider the difference between how children and adults learn, which may be summarised by saying that adults tend to draw on their past experience and are generally more self-directed (Knowles, 1970, 1983; Kolb, 1984; Brookfield, 1986).

It identified and examined a key and complex issue for adult online learners: the distinction between individual learning and group learning. The literature generally indicates a movement away from a developmental psychology perspective, which essentially focussed on the learning of individuals (Aristotle, 1991; Piaget, 1928, 1959, 1969, 1971) towards seeing learning as a socio-cultural experience (Bandura, 1977; Vygotsky, 1986; Lave and Wenger, 1991). It was argued that learning may occur through membership of a community, such as a community of practice (Wenger, 1998) or a learning community (McConnell, et al., 2004); however, such communities may marginalise some learners (Hodgson and Reynolds, 2005; Mann, 2005). In addition simply applying the 'community' label is not a guarantee of collaborative learning. The conclusion was that individual learning and socio-cultural learning are not necessarily mutually exclusive: learning can be both an individual and a social process (Ravenscroft, 2002, 2005).

The link between learning and emotion was discussed and there was consensus that, in the process of learning, people experience both cognition and emotion which are inter-connected. Cognitive conflict and its resolution were generally considered to be valuable learning mechanisms (Harasim, 1989; Scanlon et al., 1999). However, whilst managing the emotional aspects of interaction was seen as critical to online learning (Salmon, 2002) it was also argued that a group which is 'unharmonious' can still learn (McConnell, 2006).

Learning was generally described in terms of height and depth, with attaining higher and deeper levels together with metacognition (learning how we think and learn) regarded as more desirable (Bloom et al., 1956; Marton and Säljö, 1976; Biggs, 1978, 1999; Entwistle and Ramsden, 1983; Ramsden, 1987). Hierarchies of learning are useful in making sense of the complex subject of learning, but may omit important

forms of learning and may not necessarily reflect the order in which learning takes place (Bloom et al., 1956).

It was concluded that, in collaborative online discussions, learning takes place both in and by the discussions themselves and in 'the silence' outside of them. Silence can be linked with reflection, which is important to a rich learning experience, and especially for professionals (Schön, 1983; Brookfield, 1995). However, online silence may be antisocial when it negatively affects the ability of an online group to collaborate and learn (Brookfield and Preskill, 2005).

Metaphors were seen as a device which allows learners to link concepts which are familiar with those that are not. Increasingly, metaphors are regarded as not just 'frilly speech' but as evidence of cognition (Lakoff and Johnson, 1980). The educational value of metaphors is in inviting interaction and helping reflection and recall as an aid to acquiring new knowledge (Ortony, 1993; Goatly, 1997; Cameron, 2003). Metaphor has an affective function and may be used to make up for the lack of body language, especially in expressing emotion; this is a particularly important aspect of learning online (Kövecses, 2000; Cameron, 2003).

In the next chapter, Chapter 3, I will explain and justify the choice of my overall research methodology (virtual auto-ethnography) and discuss the specific methods used to collect and analyse data.

Chapter Three: Methodology and Methods. Corners first; sky last

Chapter Three: Methodology and Methods. Corners first; sky last

3.1 Introduction

In this chapter I explain the rationale for my overall research methodology (virtual auto-ethnography) and the issues it raises, along with my specific methods of collecting and analysing data. I justify these decisions by reference to the options available, taking into account literature on the subject. Table 3.1 below summarises how I collected data, what the data were and how I analysed the data in respect of each of my three research questions:

Research question	Data collection	Data	Data analysis
How and what do people learn through online 'conversations'?	Virtual auto-ethnography	Field notes and research diary	N/A
		Online conference transcripts	Content analysis Metaphor analysis
	Questionnaire	Completed pre-interview questionnaires	N/A
	Interview (incorporating critical event recall)	Interview transcripts	Content analysis
What is the significance for learning of online silence?	Virtual auto-ethnography	Field notes and research diary	N/A
		Online conference transcripts	Content analysis Metaphor analysis
	Questionnaire	Completed pre-interview questionnaires	N/A
	Interview (incorporating critical event recall)	Interview transcripts	Content analysis
What is the significance for learning of the use of metaphor in online 'conversations'?	Virtual auto-ethnography	Field notes and research diary	N/A
		Online conference transcripts	Content analysis Metaphor analysis
	Interview (incorporating critical event recall)	Interview transcripts	Content analysis

Table 3.1: Summary of methodology and methods

3.2 Overall approach

Traditionally, the way people learn has been researched in the discipline of psychology (for example Piaget, 1928, 1959, 1969, 1971). In the past, quantitative methods predominated in educational research, such as comparing a group which had a particular educational intervention with one that did not. The research questions for such projects normally needed to be capable of being answered with precise, measurable results from which conclusions could be reached which could then be generalised and from which hypotheses could be drawn. For example: what proportion of online students experience higher level learning compared with those undertaking traditional distance learning? In addressing such a research question, it might be possible to use a control group (issued with traditional text-based materials) and an experimental group (issued with online materials) to obtain statistical information about student performance. However, there are ethical and practical issues with this approach such as the possibility of student dissatisfaction and perhaps even appeals based on inequality of provision.

It may seem self-evident that researchers should choose the approaches most appropriate to address their research questions. As Silverman (2001: 25) puts it, if you want to discover how people intend to vote, a quantitative method may be the best choice; if you are concerned with exploring people's life histories or everyday behaviour a qualitative method may be preferred. However, this may imply that quantitative and qualitative approaches are mutually exclusive, whereas it is has been shown (for example by Goodyear et al., 2005) that they can be combined effectively where appropriate.

My research questions are focussed on people and their learning behaviour, with an underlying element of studying a culture. The focus of the study is qualitative rather than numeric and it was therefore appropriate to adopt a predominantly qualitative approach. As Hammersley and Atkinson (1995: 8) put it:

> *In order to understand people's behaviour we must use an approach that guides us as to the meaning of that behaviour.*

The study is also concerned with a small group of people from whose experience I do not seek to generalise. Ultimately a purely quantitative approach was not appropriate in view of the small size of the group and the nature of my research questions.

The research combines elements of most of the five main categories of social research identified by Burgess (1985: 2-3), namely basic, strategic, problem-orientated, action research and intelligence and monitoring. In terms of basic social research, it aims to advance knowledge of online learning. As strategic research, it is concerned with the problem of producing good online programmes; not simply using technology because it is there, but rather because it is what is needed educationally. It is problem-orientated research because it attempts to deal with problems which emerged (for example, the widespread non-participation by some students). In terms of action research, intelligence and monitoring, it involves an element of collecting quantitative data (such as the number of postings per participant and occurrence of different types of learning as well as occurrence of metaphor) and it may be helpful for planning change (for example, better practice by online learning providers).

The study takes from the interpretivist tradition, in aiming to understand the subjective world of human experience by getting inside the person(s) and understanding from within (Cohen et al., 2000). In addition, it is based on the premise that to understand a particular social action it is important to grasp the meanings that constitute that action (Schwandt, 2000: 191). However, it differs from interpretivism (as described by Schwandt, 2000: 192-5) in that the interpreter does not claim to objectify (stand over and against) that which is being interpreted: I would not claim to be unaffected by and external to the interpretative process. My approach is allied to philosophical hermeneutics in that I do not regard any inherent prejudices and preconceptions I may have as something I need to get rid of in order to come to a clear understanding. I believe that understanding is participative, conversational, dialogic and always bound up with language and that meaning is not necessarily constructed but negotiated. For me language, conversation and dialogue are the gateways to meaning and truth. In line with an interpretivist approach, it was important that theory emerged from and was grounded in my data (Glaser and Strauss, 1967).

3.3 Rationale for the methodology

3.3.1 Considering the options

A case study has been defined as "study of a singularity conducted in depth in natural settings" (Bassey, 1999: 47) in that it is a study of what happens to individuals or a group; a real life in-depth examination of an occurrence. It may combine some of the elements of ethnographic research, programme evaluation and descriptive methods (Anderson, 1990: 112). I had used a purely case study approach for an earlier EdD assignment which involved conducting a piece of small-scale research into another online programme which was offered by the same institution as a prequel to (and, in effect, a prerequisite for) the researched programme. At the time of that earlier EdD work my aim was to look in depth at the learning experiences of a number of learners on the relevant online programme. However, when considering this approach for my thesis I felt there was something missing. I reflected on this and realised, like Markham (1998: 25) that what was missing was myself and, in this context, my own learning experience; I was absent from my own study. In my earlier assignment, I had even gone to the lengths of giving myself a pseudonym, in some sense almost denying my right to be present and to have a voice. Therefore, although my present research could be regarded as something in the nature of an educational case study, in that it deals in depth with the experiences of a group of students on a particular programme, I have chosen to give prominence to the ethnographic and auto-ethnographic aspects.

Action research is linked with pioneers of change management such as Lewin (1946). It deals with planned change, for example curriculum development. It is defined as a form of self-reflective enquiry undertaken by participants in social or educational settings in order to improve practices and their understanding of these practices and their understanding of the situations and institutions in which the practices take place (Wellington, 2000: 20-21). Action research was explicitly stated to be the underlying ethos of the researched programme. However, whilst my research has elements of this, I do not see this as the predominant approach. The stance I took was principally that of learner; I am also a practitioner, but this is a peripheral role. I was also researching another institution's programme and practice rather than my own.

It was also not appropriate or practical for me to adopt action research as the underlying methodology for my research because, at the time, I had no online course to

put anything into practice directly with as I had just changed jobs and my new institution was further behind on the road to e-learning than the one I had just left. Rather than aiming to change existing practice, I was seeking to inform future e-learning strategy in my institution.

Programme evaluation aims to assess particular educational approaches with a view to shedding light on general and generalisable concerns (Anderson, 1990: 166). The reason for conducting an evaluation here would be to try to obtain feedback from the participants about their learning experience. Although I did not use this as my principal approach, I did incorporate elements of it in my research design. Both in the interviews and in my contributions to the online conferences, I evaluated the knowledge and conception acquisition of the students. I considered their attitudes towards the subject and the method of learning, examined the processes taking place, and reflected on the attitudes of the tutor and my fellow learners and the relationship of these to the learning process (Anderson, 1990). In fact, in the final online conference, the tutor publicly acknowledged the evaluative dimension to my contributions:

> *I am a bit sad that my suggestion about putting the logs up onto the [discussion board] didn't really work out - it might have got people on here and once they were they may have contributed to other discussions. Also it may have led to more group feedback on the logs which could have worked better than individual responses.*
> *(Sue, posting 7.3.8).*
>
> *The next [running of the programme] will involve posting logs on [the discussion board]. Your input has helped in this.*
> *(Lloyd, posting 7.3.9).*

My approach was influenced by aspects of phenomenology (Husserl, 1931; Tesch, 1988), in that it was concerned with studying direct experience and seeing behaviour as determined by experience rather than by objective and physically described reality (English and English, 1958). In particular, the study used individual interviews which were partly unstructured to allow the interviewees to relate and reflect on their own experience (Jones and Asensio, 2001). However, there was more of an ethnographic emphasis due to the importance of data derived from the content of the conference transcripts, not just from the interviews. In addition, some of the phenomena being investigated (for example, metaphor) were not known at the outset but were derived from the data and there was a focus on the culture created by the cohort for which an ethnographic approach was particularly appropriate.

3.3.2 Why ethnography?

I ultimately concluded that an ethnographic approach was the most appropriate for this study due to its emphasis on examining and understanding a particular culture. My primary object was to collect data that would convey the subjective reality and lived experience of this particular group of student/educators (Pole and Morrison, 2003). I wanted to participate in their world; to get at their intentions from the inside; to understand the meanings of their action by participating in their world; to understand and interpret their actions (and silence) by grasping the meanings that constitute it (Schwandt, 2000). As Hammersley (1992: 43-44) points out, one of the most common justifications for using an ethnographic approach is that, by entering into close and relatively prolonged interaction with people in their ordinary lives we can understand their behaviours more accurately than by any other approach.

The ethnographic approach was important with reference to my first research question, which is about how people learn online. There is a body of literature on the theme of the teacher as researcher (for example, Hargreaves, 1996). In my case, the ethnographic approach was rooted in the concept of the learner as researcher. As Steinberg and Kincheloe (1998: 2-3) put it, students as researchers gain new ways of knowing and producing knowledge (power literacy and critical literacy) that challenge the common sense views of reality with which most individuals have grown so comfortable.

Ethnography, with its roots in anthropology, was a particularly appropriate approach for my second research question, about the significance for learning of online silence, as this has a connection with cultural issues. Ethnography is well established as a way of studying cultures in their natural state. It involves participating in peoples' daily lives for an extended period of time, watching what happens; listening to what is said, asking questions, in fact collecting whatever data are available to throw light on the issues that are the focus of the research (Hammersley and Atkinson, 1995: 1). Going to live in a community as one of that community gives a researcher a unique first hand insight into life and meaning-making within that culture. This is a well-established approach within educational settings, for example, Walford's study of Kingshurst City Technology College (Walford and Miller, 1991). The particular challenges of conducting

ethnography in a virtual world rather than a physical world are discussed in section 3.4.1.

In retrospect I also realise that I have had two previous experiences of using ethnography to make sense of an educational experience, although at the time I did not give them a name and did not realise that they were a form of ethnography. I have twice enrolled for programmes (a distance learning surveying course in 1993, and the online prequel to the programme currently researched in 2000) and then analysed and reported on these experiences. In both cases I wanted to discover what it was like to be a student learning in a particular environment. These two early experiences gave me unique insights which I do not feel that non-participant observation alone would have provided. In both cases I found this an excellent way of learning about a learning experience first hand.

3.4 Virtual auto-ethnography

3.4.1 Virtual ethnography

A virtual ethnography can be used to develop an enriched sense of the meanings of technology and the cultures which enable it and are enabled by it (Hine, 2000: 8). The ethnography of the Internet does not involve physical travel, or face-to-face contact with the other subjects of the study, but the ethnographer is still uniquely placed to give an account of the field site, based on their experience of it and their interaction with it (Hine, 2000: 45-6).

How do you research space, a hole, a vacuum? How do you go native by going online? In cyberspace is there a "there" *there*? These are questions raised by Jones (1999: 17 and 18). To an extent these issues were not a dilemma for me, with my background in surveying and property law. To a surveyor, the notion of space is rooted very much in the actual, the physical and the material. Thus, even though space itself is intangible, it is an entity or unit to which a financial value can be attributed. To a property lawyer, space, however intangible, is something over which there can be ownership, rights and restrictions. For example the owner of a freehold property, such as a dwelling house, owns the airspace above it to the extent of being able to restrict access to it, within the parameters of reasonableness and subject to statute law covering civil and military aircraft (Bernstein v Skyviews (1977).

In both of these professions of the land the incorporeal can be valued and owned even though it remains intangible. The virtual world is also, by its nature, incorporeal; however, it differs from surveying and legal space in that it has a corporeal manifestation: in the form of words on the screen in the case of the subject of my research. When it came to deciding on the appropriate methodology for researching and interpreting this unique space, I built on my experience. In a previous dissertation I had surveyed buildings in order to ascertain their physical condition and the changes that had been made to them. It therefore seemed apt, both for the subject and for myself, to use some form of 'surveying', that is, observation, in making sense of online discussions. This led me to virtual ethnography: observing the incorporeal.

It is acknowledged that ethnography is an appropriate approach for social scientific research of the online world (Kendall, 1999: 57) and there are a number of precedents for this in other important studies of cyberspace (such as Turkle 1995; Hine: 2000). Conducting ethnography in a virtual world presents its own particular challenges and does not protect the researcher from the perils of over-involvement. Some of the particular issues I encountered by conducting a virtual ethnography included whether and how to introduce a discussion on a sensitive subject such as a fatal accident (discussed in section 4.3.3) how to express emotion in online discussions (see section 4.6.5) and how to deal with the situation where you are making a large number of contributions to the conferencing but others are not (see section 4.5.4).

It is interesting that earlier on in the EdD I had rejected ethnography as a possible method for investigating the research topic 'Can online learning materials add value to the learning experience of distance learners?' One of the reasons I gave for this was:

> *There is a strong emphasis on observation in ethnography and pure 'observation' of online or distance learning would be difficult since the learning mostly takes place in each learner's own time and venue. Some such courses contain face-to-face teaching elements which could be observed, but these normally form only a small part of the course.*
> *(EdD Part I, Assignment 3).*

In retrospect this may have been research naivety, but it perhaps shows how far I have come on my research journey during the EdD, that I now realise that 'observation' does not have to be physical and can involve participation too.

One of my research questions is concerned with the learning that may have occurred in 'the silence' outside of the visible conferences. Researching and analysing silence at first glance may seem as onerous as swimming to the moon. Online conferencing, and

the learning which takes place as a result of it, is more than the total of the text it produces; it is relatively straightforward to 'observe' and take part in such conferences but how do you form judgements of what happens invisibly and silently? Is even *virtual* ethnography wide and deep enough to deal with this? I would suggest that pure 'observation' is clearly inadequate in this regard. I accept, however, that I had made an assumption that a group of educational professionals would fully understand what learning was and was surprised that they regarded it at a relatively low level, that is, in terms of what new knowledge and practical tips they had acquired, rather than in terms of higher level learning such as evaluation and metacognition:.

> *Sue:* *What...I'm interested in really is as to whether anyone learns anything by these online conferences and collaborations you know the whole of that very long 4-month period when we were all having these discussions...*
>
> *David:* *I think I did learn, because it broadens your perspective on things - and some of the websites given were quite useful.*
> *(David, interview 5.7).*

They also generally did not know and could not be precise about when they had learned; this issue therefore remains not fully answered for all participants. However, I believe this justifies my own full participation and auto-ethnographic approach which enabled me to gain a feel for what I learned and when my own learning might have taken place, and then informed the interviews I conducted.

3.4.2 Auto-ethnography

The traditional model of fieldwork features a lone researcher who makes a sortie into the field to collect data, brings field notes back to analyse, and then writes a monograph. However there has been a move away from strongly authored narratives in ethnography (Atkinson and Coffey, 1995). The so-called 'readerly' narratives of the past are now regarded by some as ethnocentric, based on an authority that appears spurious, exercised through a monologue which subdues the voice of the other(s) (Atkinson, 1990). More modern writing styles make the author visible and bring the perspectives of all participants to the foreground (Hertz, 1997).

Auto-ethnography has been defined as:

> *An autobiographical genre of writing and research that displays multiple layers of consciousness, connecting the personal to the cultural ...autoethnographers gaze first through an ethnographic wide-angle lens, focussing outward on social*

> *and cultural aspects of their personal experience; then they look inward exposing a vulnerable self ...*
> *(Ellis and Bochner, 2000: 739).*

Mine belongs to the genre of narrative ethnographies, in that I include my own experiences in the text (Tedlock, 2000: 460). This very much creates not just a portrait of the group I am studying but also of me; my fieldwork was concerned with my own experiences as well as those of the other learners. The prologue is written in the form of a short story in the third person. It relates real events, educational experiences that happened but expressed as a story. This is in the style of an ethnographic novel. The justification for this is in placing my research and its physical expression in my thesis in its full context; that of my significant educational experiences.

It may be argued that it is more common, if not better practice, to separate the narratives of the field and the self. However, Atkinson (1990) feels that the two can be intertwined without adversely affecting the purity or conviction of the text. It is a way of giving the researcher a voice and acknowledges that all ethnographic writing is to some extent autobiographical (Coffey, 1999: 119). Recent trends have been to locate the self more centrally not just in the fieldwork but in the analysis and the written account (ibid: 125).

My research is based on the premise that adult education should be learner-centred and active rather than teacher-centred and passive. The teacher's role is that of facilitator (a 'guide on side') rather than expert imparter of knowledge (a 'sage on the stage'). This is a central theme of my own professional practice and the underlying ethos of the organisations I have worked for. It was fitting for me as a researcher to be a learner (that is, an active participant, rather than passive observer). I was placing myself at the centre of the learning where the learning was happening. I wanted to learn from my research in a very literal sense and to tell my account of this in a way that would express this research in its full context: that of the major learning experiences of my own life.

The auto-ethnographic approach flowed naturally from this: a key focus of my research was the learner's experience of online education, with myself as one of the learners. I did not just want to learn about other cultures, I wanted to learn about myself: I did not just want to learn how others learn; I wanted to know and reflect on how I learned: a kind of auto-metacognition. Ultimately I wanted to make sense of why I had previously failed as a learner, or least as 'the assessed' and ensure that the lessons learned could

be applied in my professional practice as an educator so that this did not happen to others.

Lofland and Lofland (1995) acknowledge that fieldwork is likely to involve a topic you care enough about to study but nevertheless caution the researcher against what might amount to 'autobiographical sociology', or which might give rise to criticism as being self-indulgent, narcissist, exhibitionist or just plain uninteresting. I did have concerns about how my account would come across to readers, but although I openly state that it is ego-centred, I hope it is not egotistical. As Hine (2000: 56) puts it, ethnography can be a process of self-discovery and reflexivity and can be a strategic element in discovering insight. Although not specifically a piece of feminist research, my work empathises with demystifying the researcher and researched as unattached, objective instruments and acknowledges that research can be personal, emotional, sensitive and reflective and may be situated in existing cultural and structural contexts (Coffey, 1999: 12).

Coffey (1999: 5) suggests that if we simply see the 'self' in fieldwork in terms of getting the job done we may ignore that the notion of self includes an emotional as well as a physical self. However, while Lofland and Lofland (1995) acknowledge that the best work in the field of sociology/social sciences is grounded in the biography of its author(s), they do not encourage researchers to write themselves into the resulting product. In my case my research is openly auto-biographical and I would justify this in stating that this research and thesis are not just theoretically but actually and tangibly built on the basis of the knowledge and experience(s) I have had in education so far. I have therefore where appropriate, referred specifically to surveying or legal concepts to explain my understanding of the issues in this research (for example, in section 3.4.1 above).

3.4.3 Participant participation

Ethnography may involve being a member of the group being studied. In classic anthropological ethnographic studies (such as Malinowski, 1922) the researcher is a stranger who studies a 'foreign' culture by observing and taking part in its rituals. In doing so the aim is to 'make the strange familiar'. This is often referred to as 'participant observation'. I coined the term 'participant *participation*' to explain the active role I played in the researched programme. This was a particularly useful way to study group dynamics, an aspect of e-learning which may be missing when researchers only

analyse the content of scripts of online conferences in which they may not have taken part and which have already taken place. My research was active and in real time rather than purely after the event. As Markham (1998: 25 and 57) puts it:

> *Cyberspace is not simply a collection of texts to analyse; rather it is an evolving cultural context of immense magnitude and complex scope.*
>
> *...Most of the time the content of the message gets more attention than the person attached to it.*

Some of the literature warns of the danger of becoming too involved or over-familiar (Coffey, 1999; Hammersley and Atkinson, 1995). Coffey (1999: 20-21) suggests that ethnographic researchers should aim to start out as a stranger to the group observed, then gradually, though a process of discovery, during which they become estranged from their previous home environment, achieve enlightenment and a deeper understanding of the world of those they are observing. Whilst she acknowledges that fieldwork is not passive she feels that becoming too much part of the family may mean there is a danger of losing the analytical cutting edge that comes with cultural difference. However, Coffey's analysis does not address the issue of whether 'analytical strangeness' can ever be regained or whether there are some researchers (such as professionals from other disciplines) for whom 'hat swapping' or making the switch from subjective participant to objective researcher is less problematic. 'Objectivity restored' is a feature of professionalism, and certainly of me, as I have often had to change from insider to outsider in the course of my professional life (for example when valuing my own property) and find no difficulty in doing so.

Such views may stem from the historical context of ethnography as a means used by anthropologists to study other cultures, where one fear was that of immersing themselves too much in the other culture to the point of 'going native'. Coffey (1999: 31-33) does not rule out insider ethnography entirely but points out that if you go this way you need to recognise and reflect on your own situated position; a stance which is embedded in an auto-ethnographic approach. She also explicitly accepts that there are many examples of ethnographies where people enter the field from a position of relative familiarity, such as nurses researching aspects of nursing and former soldiers researching military life. In one case (Hockey, 1996), the researcher's ethnographic involvement with basic training brought back memories and feelings of an unpleasant incident he had experienced himself when a new recruit.

It was not possible or, arguably, desirable, for me to adopt the model of stranger or peripheral observer in my research. The group did not exist as a group until the programme started. I was part of that particular group on that programme from the outset. I was only a stranger in an unfamiliar world to the extent that all the other participants were. This kind of world was not totally unfamiliar to me either, as I had used and experienced this particular computer conferencing system on an earlier programme delivered by the same institution. By studying a programme that I was already enrolled on, this was a case of participant *participation*, overtly and from the outset. I was perhaps making the relatively familiar even more familiar. As Markham (1998: 18) says:

> *Every action that I made that influenced the project became a text that engaged and interacted with a multiplicity of other texts. In the process of organising and doing this study, I was taking part in the organization of what was to be the study.*

To an extent I was also 'making the familiar strange' in that issues such as the significance of metaphor use and the prevalence of non-participation were unfamiliar to me in the context of online learning.

I was also actively contributing to creating the online culture. There was therefore no question or possibility of distancing myself from it. I was one of them from the outset. They didn't exist as a group without me. This online virtual place (the Virtual Learning Environment) became my world:

> *It was like my home for that 9 months. I really felt that that I lived in that world; that was my world. I felt confident enough to put up messages which were a bit risky, not rude but which I was not totally sure what the reaction would be, a bit personal... Almost like when you come in from work and you need someone or somewhere to offload what has happened in the day and you tend to do that to people who are close to you, not necessarily your husband or friends but someone you feel comfortable with, even your neighbours... or your staff room... (Sue, interview 4.3).*

It is important to stress that I was not a double agent content to be a member until I had got my data but then happy to depart (Tedlock, 2000). I was already registered on this programme anyway and took the full assessment along with my fellow students. This was not therefore participant observation as such but very much the observation of participation where ethnographers both experience and observe their own and others' co-participation within the ethnographic scene of encounter (Tedlock, 1991).

It might have been possible (if not very practical due to timelines) for me to have merely observed 'Big Brother' style from the side-lines and not taken part at all. In fact, I did something of the kind with another cohort of students on the same programme as

myself. I had access to their discussion board but only took part in the conference I myself led which was on the subject of my research. I did not take part in any other discussions. However, I found that when it came to interviewing both sets of students those from my own cohort warmed to me and, I believe, revealed far more than those of the other cohort.

Rather than travelling to a foreign land, I remained physically based in my own familiar home and work environments throughout the time I 'moonlighted' in the virtual world of my online cohort. I was observing and participating predominantly via my home computer (very occasionally at work). However, my family may well have felt that I was seriously addicted to the discussion board and therefore, arguably, distanced from my normal world during the course of my fieldwork.

3.5 Grounded theory

A preliminary analysis of the conference transcripts was undertaken using categories emerging from the messages themselves, without detailed reference to the literature, drawing upon grounded theory (Glaser and Strauss, 1967; Strauss and Corbin, 1998). Further data analysis was carried out in the light of the literature review. The validity of this approach has been acknowledged by researchers in this field (McConnell, 2000; Lally and De Laat, 2002; De Laat and Lally, 2003; Steeples, 2004; McConnell 2005, 2006).

In the initial analysis I simply used my research questions as the main headings in a framework or grid (a copy is included in Appendix 3) and analysed the content of the online conferences and interviews against these headings, allowing new themes and theory to emerge naturally from the data. One of these themes, metaphor, eventually formed the basis of a new research question.

The grounded theory approach was developed by Glaser and Strauss (1967) and is defined as systematic inductive guidelines for collecting and analysing data to build middle-range theoretical frameworks that explain the collected data (Charmaz, 2000: 509). In the case of ethnographic studies, the researcher creates his/her categories for analysis directly from the culture being researched rather than from preconceived concepts or hypotheses (Charmaz, 1995).

In its original form it was underpinned by logic, neutrality and positivism: all concepts far removed from my more subjective and qualitative stance. However, in its more modern, constructivist form, I believe that grounded theory was appropriate for my research, in the sense that I was constructing or generating theory from collecting and analysing my data by studying people in their natural setting (Charmaz, 2000: 510). I was allowing the themes and theory to emerge from the data rather than prescribing them by reference to the literature.

The advantage of this approach is that it allows the researcher to be creative and intuitive; to explore the data's potential for developing theory (Strauss and Corbin, 1998: 12-13). It allows for correction of errors by refining data collection and is flexible enough to allow the researcher to redirect the analysis as new issues emerge (Charmaz, 2000: 522-3). It is therefore particularly suited to research in new or under-researched fields, such as those in which there are significant gaps in theory as is the case with online networked learning. In my case I felt that this approach enabled me to identify important themes, like the use of metaphor online, which might not otherwise have been given the prominence they deserved. It also gave added rigour in that I conducted further data analysis after my literature review.

However, grounded theory has been criticised on a number of counts. Goulding (1999) suggests that the language of the method (such as axial coding and verification procedures) has positivist connotations and may be regarded as going against the tenets of qualitative research (such as ethnography) by seeming to emphasise the interpretation of the researcher over the subjective experience of the participant. An allied argument (Gerber, 1990) is that there is a danger that the researcher's own ideas and preconceptions become entangled in the analysis and they may therefore miss matters of more significance to the researched group. For example Gerber (ibid.) critiques Edgerton's (1967) seminal ethnographic research into people labelled 'developmentally disabled' on the grounds that it failed to take full account of the learners' resilience because the analytical framework used did not fully acknowledge that learning difficulties are socially constructed:

> *Having accepted the validity of the label in these cases, however, Edgerton is forced to find ways to account for what otherwise could be construed as a reasonable analysis by these individuals of their own life histories and current circumstances. In effect, Edgerton's theoretical and narrative strategies serve to deny them the authority to analyze their own circumstances. He must explain away what they do say about themselves.*
> *(Gerber, 1990: 6).*

These issues were addressed in my research by the fact that the overall auto-ethnographic approach together with the use of conference transcripts and critical event recall combined to enable both the researcher's and the participants' voices to be heard.

According to Hammersley (1992) grounded theory is actually deductive rather than inductive and fails to acknowledge that all research starts with theory. It may therefore lead to researcher 'dishonesty' in that no-one is 'theory free'. It is true that in my case I could not and would not claim to be 'theory free', not least because, at the time, I had been formulating my institution's e-learning strategy which naturally brought me into contact with at least some of the relevant theory, but I would also argue that all research is influenced by the researcher's values, views and positionality.

The original proponents of the grounded theory approach had a major disagreement in the 1990s concerning the coding of data and whether over coding might force categories to emerge and thereby go against the basic tenets of the original approach (Strauss and Corbin, 1998; Glaser, 1992). Glaser's approach (1992) of 'theoretical coding' can lead to a proliferation of codes and consequently may prove challenging, especially to novice researchers (Kelle, 2005). By choosing to adopt a framework for analysis, slightly favouring the Strauss and Corbin (1998) approach but which was based on my research questions rather than tight prescribed categories (in line with Glaser's view (1992)). I was seeking to avoid over coding, whilst giving my analysis a structure which would allow themes to emerge in a relatively natural way.

3.6 Data and data collection

3.6.1 The data

The data consisted of my field notes, research diary as well as the transcripts of the seven online conferences which had taken place during the 4-month research period, including one particular exchange from the social area. In total this amounted to 191 individual postings by the conference participants.

There were also transcripts of 14 interviews:

- 4 interviews with the other students in my cohort
- 2 re-interviews with the other students in my cohort (but one was of limited use and the recording of the other was obliterated by noise)

- 1 interview of myself (conducted by my then supervisor)
- 2 interviews with the tutor for my cohort
- 1 interview with the Course Director
- 4 interviews with students from the cohort which had immediately preceded mine (in the event I did not use these).

3.6.2 Conference participation and transcripts

Participating fully in the online programme researched, including taking the assessment, was fundamental to my virtual auto-ethnographic approach. In particular, I took part in all online conferences, posting messages either of my own accord or in response to postings made by others. I also led a conference. This meant that I was able to experience first hand what it is like to be a user of this form of communication for education and to engage in this in a highly reflective way (Markham, 1998). I decided to do this because, as Hine (2000: 23) points out, making the shift from analysis of passive discourse to being an active participant in its creation allows for a deeper sense of understanding of meaning creation. Instead of being a detached and invisible analyst, the ethnographer becomes visible and active within the field setting.

I was in fact both active and visible as befits my auto-ethnographic stance. From a pragmatic, and admittedly opportunistic, perspective, I was already enrolled on the programme anyway and wanted and needed to foster my own learning. A possible resulting issue was the potential for developing a kind of virtual schizophrenia which, if not an identity crisis, was at least an identity blurring. I acted online variously as student, educator, people manager or researcher. Later, there was also the issue of having to adapt my interview style to meet the perceptions my fellow-student interviewees already had of me (discussed in section 3.6.5).

I was able to access the discussion board of the cohort before the one I was registered on, towards the end of their programme. I posted up a message about my research and several people replied and joined in a discussion thread about their experience of studying online. I subsequently emailed all who had taken part and interviewed those who replied and agreed to be interviewed (four people in all). At the time I anticipated that having a comparison with a different cohort would be useful; however, ultimately, while these interviews were interesting and useful, I had sufficient data from my own cohort and, because of the auto-ethnographic approach I decided to take, I have not included them in this thesis.

For the purposes of this thesis I have chosen to concentrate on a 4-month period of the 9-month programme because this was the main focus of online conferences. I have not chosen to analyse or include the logs submitted by students for peer review. These were effectively progress reports on the particular e-learning projects people were dealing with in their work. For various reasons, these logs were not entirely successful and it is fair to say that most students' effort was concentrated on the conferencing during this period.

The transcripts are a full record of all 191 postings during the period researched. In this sense I did not need to select data during the time of collection: this would take place in the time after the creation of the texts by my research informants (Pole and Morrison, 2003: 124). Some researchers, faced with a large number of postings, choose to analyse a proportion of them, for example 10 per cent of 1,000 messages (De Laat and Lally (2003). However, I analysed all postings as the number was a manageable size.

3.6.3 Field notes and research diary

My field notes consisted of an annotated set of the conference transcripts. I also kept a research diary which detailed critical events only. Together these gave a record of what had taken place, together with my interpretation of events. In effect, the cohort had created its own record of events (at least those online) and text in the form of the words of the conferences. These formed a permanent record of what was said, although I acknowledge that this, crucially, does not reveal what went on in the silence 'between the words' or outside of the conferencing. I hoped that the interviews would reveal at least some of the missing links.

3.6.4 Pre-interview questionnaires

I issued all interviewees with a short questionnaire prior to the interview (a copy is included in Appendix 1). This contained questions seeking purely factual information rather than detailed qualitative data. I also set out my research questions and gave interviewees an outline of the issues I was interested in. The main aims of this approach were to avoid taking up interview time with going over the basic facts, for example a person's qualifications and whether they had experienced distance learning or online learning before, and to help the interviewees prepare for the interview. Interviewees were asked to email the questionnaire back to me in advance of the

interview or to bring it with them on the day. Most provided both an electronic and a hard copy.

I dismissed the idea of issuing a more detailed survey. I felt that, as I already had the conference transcripts and the opportunity to conduct interviews, I would have sufficient data without doing so. I was also mindful of avoiding making the whole process too onerous for this group of busy professionals who had already been helpful and co-operative. Had I been in a position to know in advance that I was going to research this cohort I might have been able to consider the possibility of before and after questionnaires which may have been useful in addressing the issue of what my fellow students thought that they had learnt. However, this was not possible for reasons of timing, and I believe, considering the volume of data I collected overall, probably not necessary.

3.6.5 Interviews

The interviews were conducted over a seven-month period from March 2003 to September 2003. This was due to availability of the interviewees and the disparity of the locations. The providing institution also required, for ethical reasons, that the interviews take place only after the assessment results had been verified by an examination board.

The interviews were conducted immediately after the fieldwork. This was because I was concerned that people might disappear or lose interest in my research if I left it too long, bearing in mind the tailing off of contributions to the online conferencing towards the end of the programme. I discussed this with my (then) supervisor and we agreed it was important to conduct the interviews quickly in the circumstances.

There was no fixed length of interview, the shortest took roughly an hour and the longest was three and a half hours. All interviews were contemporaneously tape recorded with the permission of the interviewee and later transcribed.

Who was interviewed?

I interviewed four of my five fellow-students and the tutor for the cohort. I did not interview one student who had withdrawn from the programme before the conferencing section had started, as this section was the focus of my research. A fifth student in my cohort took part in the conferencing section but withdrew at the end of this without

submitting a portfolio for assessment. I tried, unsuccessfully, to contact him to ask if I could interview him. I did so directly by email and also wrote a letter to him which the Course Administrator sent to his given address. There was no reply to either of these communications and, after discussions with the course provider I felt there was no more I could do as it appeared that he did not wish to be contacted. The Course Director was also interviewed. She did not participate directly in our cohort's discussions but did have access to the discussion board and also to the tutor's support board.

I arranged to be interviewed myself by my then supervisor. This interview took place at the University of Sheffield. The rationale for this was that I felt my voice as a student, rather than just as a researcher, deserved to be heard. This was an acknowledgement of my dual role as student/researcher and was, in my view, democratic and equitable in that, otherwise I would have been the only student who took part in the conferencing who was not interviewed (apart from the one student (Mark) who withdrew). It also tied in with my auto-ethnographic approach, allowed me time for reflection and fitted in with the idea of making sense of what had happened. The interview took place within the same timeframe as the other interviews to suit the interviewer's availability.

Interviews were also carried out with four students from a previous cohort on the same programme, as I had led a short conference about my research on their discussion board. However, in the event I decided not to analyse or use this data because I wished to concentrate on the cohort that I had been a part of and already had sufficient data. However, this data could possibly form the basis of some future research and/or publications.

Follow-up (second) interviews were attempted with the students from my cohort and the tutor 6 months after the original interviews. This was principally to allow them to reflect on what they had learned and also to seek clarification on any issues as necessary. However, this was not very successful for a number of reasons. Even in that short time, one student had moved to live in a remote part of Scotland and all efforts to contact her failed; another failed to answer all communications. The second interview with Jane revealed little more than the original interview. There was a technical problem with the tapes of the second interview with Paul: unfortunately there was a hum or constant loud noise in the background which masked the voices and made the interview impossible to transcribe. All attempts to solve this with software

failed and this therefore had to be discounted from the data. The only second interview to be both useful and capable of transcription was that with Lloyd, the tutor.

Online or face-to-face?

I gave considerable thought to deciding whether to conduct the interviews in person or online. Markham (1998: 71) conducted her interviews online and found some aspects of this challenging, although the results were fruitful:

> *I found it difficult to manage the basic elements of conversation, such as taking turns at the appropriate time, nodding or mm-hmm-ing to imply 'Go on, I'm listening.' I couldn't give a questioning glance or wrinkle my forehead or frown slightly to let the other person know I didn't understand...I couldn't smile, chuckle or laugh spontaneously.*

Unlike Markham's situation (1998), my interviewees were relatively easy to get to (although located everywhere from Scotland to the extreme South of England). Hamman (1997) points out that, in text only cyberspaces, there are no visual or audible cues to protect against misinterpretations as there are in the physical world. His research into cybersex involved conducting online interviews with participants in internet chat rooms. He found that this could give rise to serious misunderstandings (for example that an interviewee was propositioning him) which would be avoided in a face-to-face setting.

There may also be a need to check what has been said online against what is stated in interview; there is therefore a significant advantage in terms of triangulation. Turkle (1995: 324) would not report on online interactions unless she had also met the person concerned face-to-face because of the need to verify the person's online identity. She felt that this so-called 'real life bias' was appropriate for her study but might not be for others. However, she maintains that her choice not to use online interviews is based on the focus of her work, not for fear of a fundamental flaw in the method.

I felt that by interviewing people face to face I could ask key questions such as: "What do you think you have you learned by being on this programme?" and then follow this up immediately by probing further in order to clarify. I could also watch the body language which, of course, is missing online, be able to interrupt and ask immediate follow up questions, and be assured of immediate responses, rather than measured ones some time later. I did not feel I would be able to do this as well by further

asynchronous online interviews, and changing to synchronous online chat would not overcome the lack of body language issue.

Importantly, I also hoped to learn more about those people who had lurked a lot and not contributed very much. Whilst it may be felt that lurkers lack online presence, I would contend that this itself is meaningful in an educational setting, in terms of the learning of the group as a whole. Ethnography relies largely on the observable features of interaction and this can be challenging in the case of lurkers. Where people are simply reading the contributions of others, rather than posting contributions themselves, the fact that they have logged on is recorded and their pattern of behaviour can be checked. However, their thoughts and any words they would have used are not visible as, by definition, lurkers do not post a response to messages that they have read, even when the participant is an ethnographer (Hine, 2000: 25). I therefore felt that if I had conducted online interviews, these people might not have participated visibly; in effect, they may have lurked in the online interview.

On the other hand, it did mean that I was breaking the culture of no face-to-face meeting and, arguably placing myself in a different position to that of the other participants in that I was not purely trying to make sense of this virtual world from the textual products of it. There was an element of loss of purity and parity which I wrestled with. I was left with a faint feeling that I had betrayed the ethos of 'virtuality'. There is an argument that field relations are (and should be) bounded by the time and place of the fieldwork (Coffey, 1999: 53). I wondered if by 'coming out' as a real person I would somehow be violating an unwritten rule of the culture that we only existed on that discussion board; only online?

Some writers suggest that there are certain advantages to interviewing people in their own environment. According to Hammersley and Atkinson (1995: 150):

> *...interviewing them [respondents] on their own territory... is the best strategy. It allows them to relax much more than they would in less familiar surroundings.*

I accept, as Hamman (1997) found, that interviewees may not be prepared to talk about certain subjects (such as, in that case, cybersex) in face to face interviews, but would do so online. However, my research was not concerned with such sensitive subjects but with education and learning, which was what they were all engaged in as learners and/or as professionals. It is also debatable in the case of online learning exactly where interviewees' 'own environment' is. Does it literally mean their virtual

world of cyberspace represented by words on a screen, or can a more inclusive definition be used by which it extends to the place where they mostly accessed the programme or even to their place of work?

I decided in the end to conduct all interviews face-to-face and at the academic institution associated with them (which was in most cases their workplace). Interviews took place throughout the UK, including two in Scotland. I decided to go with what I felt would give the greatest richness of data and which, after all, would give all participants a real voice. I felt that people might be more forthcoming in a face-to-face situation. Because we had already 'met' online, the interviews might yield more information than in instances where the researcher interviews people they are meeting for the first time. I found, as Markham (1998: 62) had that I could not work purely with abstracted texts to address meaningfully the research questions I had set. I realised there was some mileage in getting at the question by directly asking it. My curiosity was aroused and I genuinely wanted to meet my fellow students.

Interview style

The interviews were semi-structured and each began with a standard set of questions (a copy of my interview schedule is included in Appendix 2). This was to ensure parity between interviewees and also to put them at their ease. I used open questions wherever I could, in an effort to encourage the interviewees to answer in their own words. I also gave them an 'open forum' slot after the standard questions to say whatever they liked or what most struck them about the experience from their own perspective. I tried to avoid leading questions and closed questions.

According to Pole and Morrison (2003: 33), previous research has demonstrated quite clearly that research informants will respond differently depending on how they perceive the person asking the question and/or the intent behind the question. This can be an issue where the researcher is already a familiar sight and interviewees have already formed an impression about who the researcher is and what they are like. This may well affect the rapport and trust between interviewer and interviewee. It is therefore important to emphasise that I (the student) was not a stranger to the other participants but 'one of them' from the outset. It was only when I tried to don the researcher hat during interviews that some of them felt it difficult to relate to that person, that stranger. The disembodied learner, whose presence was painted by virtual

fingerprints across the screen, was more familiar than the neutral researcher who walked and talked before them. The familiar had become strange:

> *I tried to form an impression of what people were like. I did with you. I saw people walking down the corridor and I thought 'No that can't be her'. You're not quite what I thought. I was thinking you would be more robust and more opinionated... 'cos on the [discussion board] you were more opinionated.*
> *(Paul, interview, 9.9).*

There is precedent for changing your style as the interviews progress, for example by asking the questions slightly differently (Markham, 1998: 77) and I felt it appropriate to revert to something akin to the discussions with which they were familiar in order to make them feel comfortable enough with me to join in and respond. It was obvious that this group of interviewees were more at ease with and forthcoming in conversation rather than interview. The interviews therefore very often became discussions rather than question and answer sessions, so as to mirror the conversations we had had online. The interviewees then opened up to me and felt comfortable as I was in the role they were accustomed to as 'student'. This experience made me very conscious of the importance of roles and identity.

Critical event recall

The interviews incorporated critical event recall techniques (Tuckwell, 1980; Kagan, 1984; Kagan and Kagan, 1991; Lally, 2002; Steeples, 2004; Carr et al., 2006). This is a method of stimulating recall of an occurrence derived from Interpersonal Process Recall (IPR) which was originally devised by Kagan (1984; Kagan and Kagan, 1991). It is based on the premise that humans store up large amounts of information about events which they have participated in, much of the detail of which may be soon forgotten but can be recalled with appropriate stimulation. The original events may have occurred months or even years previously.

In the case of a group of learners, it may enable previously unexpressed aspects of the learning experience to be recalled and verbalised; for example, the interviewee is able to reflect upon and analyse the transcript extracts, and, in so doing, verbalise what was not directly observable from them (De Laat and Lally, 2003). A core part of this technique is to enable interviewees to remain focused on the thoughts and feelings they experienced at the time of the event rather than subsequently (Kagan, 1984; Kagan and Kagan, 1991; Lally, 2002). For example:

Sue: *How did that feel then? You know you started and...?*

Paul: *I was a bit frustrated with people that they weren't doing what they should be doing...I wanted regular contributions to be made and they weren't being made so all I was doing was I was trying well let's have a look round at what I'm thinking of and use the discussions...I'm just thinking 'well this isn't one I know something about but try to put this on and stimulate some sort of movement'...Bit like dropping some fish food on the top of the tank and hoping somebody would bob to the top 'cos they're dead...*

Sue: *What sort of things did you perhaps try to throw this fish food at them then?*

(Paul has a look at the transcript)

Sue: *First main one was selecting and presenting material online...Just the usual acknowledgement (from the tutor). The first message then tutor responds...*

Paul: *A bit like an automatic response thing, then a checklist. Basically it was 'Let's empty the brain contents out in one go without really thinking too deeply about it. Let's slam it out in sections', which is what happened. I tried to produce a structured list.*
(Paul, interview 2.5).

The rationale for using this technique, apart from its inherent value, is to triangulate other forms of analysis (Lally, 2002); in the case of this study, content analysis and metaphor analysis. This is due to the complexity of the learning processes involved in online networked learning and the desire to gain a fuller understanding of learning processes than might be possible by using content analysis alone including the need to probe the 'thinking behind the text' (ibid.).

In the case of my research, after preliminary warm up questions, the first part of the interview was based around critical event recall in which I asked each student about their recollections of three particular online conferences that they had been involved in and of which I had sent them written copies in advance of the interview so that they could familiarise themselves with the text (De Laat and Lally, 2003, 2004). The remainder of the interview was a more open time for them to raise issues of importance from their own perspective rather than in response to my questions (De Laat and Lally, 2004).

The conference extracts were:

(1) The first conference (the same for all)

(2) A conference they led (unique to that individual)

(3) The conference I led in the café area about joy riders (the same for all).

Two of the three conferences chosen were focussed on critical events during the discussions which I asked them to revisit. I chose the first conference to gauge how they felt about the rather sluggish start to the conferencing. It also had a predominant 'list posting' style and I wanted to see if and what, if anything, they had learnt from this. There were also 'noises off' regarding lack of participation which I wanted to explore and people were also establishing online identity at this stage. I next chose a conference that each person had led in order to explore their role when they were effectively e-moderator on a subject they obviously had some interest in. I chose the third conference to see how they felt about personal and social issues coming out on a discussion board and to explore whether there was a sense of 'community', with shades of a community of practice (Wenger, 1998). This also particularly linked in with one of my research questions concerning the culture that had been created and whether this affected learning.

3.7 Methods of data analysis

3.7.1 Content analysis

This technique was used to analyse transcripts of online conference scripts and transcripts of interviews.

I originally trained to use the computer programme NVivo and spent several months trying to apply it to my data. With some reluctance I abandoned this approach as I felt that it was moving me too far away from my data and the actual experiences and emotions of being a learner on the programme I was researching. Using it did not help me maximise the virtual auto-ethnography. Furthermore, it was hard to see how software could cope with analysing 'silence'; and it was apparent that this was a significant factor as my research progressed.

My approach was to immerse myself in my data, to analyse and re-analyse this in the light of my research questions. In so doing I particularly hoped to capitalise on the fact that I was present and took part in the online conferences from which much of the data are derived. By virtue of this process I aimed to form my own interpretation of what was going on and then compare this with established theories derived from the literature. I first read and re-read the transcripts of the online conferences and interviews to let

themes emerge in a naturalistic way. As stated earlier, this may be broadly regarded as a grounded theory approach (Glaser and Strauss, 1967; Strauss and Corbin, 1998). However, my own version of this approach is more akin to that described by Charmaz (2000) in that it incorporates constructivism and, with its underlying auto-ethnographic theme, openly acknowledges (and indeed celebrates) the innate subjectivity of being the researcher/learner/educational professional directly involved in data creation as well as data analysis.

I then experimented with various grids or frameworks for analysis taking into account the work of Henri (1992) and Garrison and Anderson (2003). I designed and developed my own framework by listing my research questions, breaking them down into components and using these directly as the headings for analysis for both conference scripts and interviews (a blank copy of the grid is included in Appendix 3). The original column headings therefore were:

- Learning/other activities in the silence
- Kind/quality of learning
- Learning styles
- Community/behaviour/culture.

I later conducted a meta-analysis of the 'kind and quality of learning' and 'community/behaviour/culture' columns to seek evidence of the principal issues raised following completion of my literature review. I created a new grid for this purpose based on a combination of Bloom et al.'s Taxonomy (1956) and deep and surface learning. (Marton and Säljö 1976; Biggs 1978, 1999; Entwistle and Ramsden, 1983; Ramsden, 1987) which had emerged as important theoretical bases from my literature review. The revised sub-headings for the 'learning' column were therefore:

- Knowledge, understanding or surface learning (detailed approach)
- Application
- Analysis, synthesis or reflection
- Evaluation or deep learning (holistic approach)
- Metacognition.

I rejected using sentences or paragraphs when determining my units of analysis (even though they are easily recognisable) as this appeared to be an artificial division which did not reflect the poster's development of an argument or idea. Instead, I used the approach favoured by Chi (1997), Henri (1992) and De Laat and Lally (2003), and split the messages into units of meaning by using semantic features such as ideas,

arguments or discussion topics. I set a rule that I would only record a piece of text under one heading to which it was relevant to avoid double counting. If it could relate to more than one heading, I recorded it under the higher or highest level. For example, if a piece of text from a conference showed both knowledge and analysis, I would record it only under analysis.

I developed one grid for each conference and one for each interview. I also transposed themes onto separate grids. I gave each conference posting a number (for example 1.7 indicates Conference 1 posting 7), and each unit of analysis a number (for example 1.7(3) indicates Conference 1 posting 7, unit of analysis 3). In the interviews I labelled each subject area with a number and also, within that, I gave each unit of analysis a sub-number, for example, Paul 3.6. indicates: Paul's interview subject area 3, unit of analysis 6. Originally I recorded the analysis in the grids according to each participant; however I found that this was not conducive to identifying dialogues in threads. I therefore later changed this to recording all units of analysis in chronological order irrespective of who the contributor was.

At one point during this process I created a new column heading (metaphor and language) because the use of language online, especially metaphor, was particularly striking. I formed a theory that complex language such as metaphor might occur at times of heightened emotion and possibly at times of deeper learning. I decided to highlight this aspect and set it aside as a theme for particular further attention. Having received training, I later conducted a metaphor analysis (Cameron and Low, 1999; Cameron, 2003; Rivers (2008)(a)(forthcoming)) of the full set of conference transcripts, categorising metaphors as primary, secondary and narrative (this is detailed in section 3.7.2 Metaphor Analysis below).

Units of analysis

As I relate this now, this process sounds deceptively simple. In fact it was highly complex and perhaps best described as 'messy'. The choice of units of analysis is inherently difficult and, in my case, involved an element of trial and error. No one particular unit seemed a perfect choice because of the complexity of the data. A whole message was too large a unit for my purposes and sentences or paragraphs were too small or artificial because they did not allow for the way students develop ideas (for example, over more than one sentence). As Rourke et al. (2000) express it:

> *Fixed units such as single words or entire messages are objectively recognizable, but they do not always properly encompass the construct under investigation.*

> *Dynamic units such as Henri's (1991) (sic) "unit of meaning" properly delimit the construct, but invite subjective and inconsistent identification of the unit.*

Similarly, if a rule was set allowing a unit only to be put into one category, possible instances of a particular kind of learning would not be accounted for, whereas the opposite approach could lead to double counting. It is perhaps not surprising, therefore that this aspect of content analysis has been criticised for its inherent subjectivity, the 'intractable problem' of defining the unit of analysis (Archer et al., 2001) and because of the failure of some researchers to deal with this issue adequately (Strijbos et al., 2003, 2006). Lally and De Laat (2002) point out that coding in content analysis may provide little insight into individual thinking that was not expressed in the text messages (for example, learning in 'the silence' and participant dynamics such as patterns of reading the messages posted.

Linking language with learning

Once the unit of analysis and framework for analysis are decided upon, as stated in Chapter One, there remain theoretical difficulties in linking language with learning. Specifically, there is an issue over whether the words people use online reflect some or all of their learning (Goodyear, 2001: 51, 62; De Laat and Lally, 2003: 9 and 20). As Archer et al., (2001) express it, in most cases the researcher is interested in variables that are latent (i.e. have to be inferred from the words in the script) leading to issues regarding reliability. In practice, particularly in qualitative research, there may inevitably be reliance on the subjective assessment, intuition and interpretation of the researcher due to lack of precise criteria with which to judge each category (Hara et al., 1998).

I sought to address this by using types of learning that I was very familiar with (such as those detailed by Bloom et al. (1956)) as my headings and categories for analysis. I felt that I would be able to recognise when students were demonstrating these by the words they used because I was experienced, in my professional roles, in marking students' assessment. Students' performance was measured against learning outcomes which were often based on taxonomies such as that of Bloom et al. (1956). Students had to demonstrate such outcomes as evaluation or reflection and I had to decide whether they had met these purely through the evidence of the transcripts of their written work (typically examination scripts and/or course work).

Analysing silence

It seems axiomatic to suggest that content analysis of conference transcripts is unlikely to reveal all that has happened and all the learning that has taken place in the 'silence' outside of the conferences themselves. As Jones and Cawood (1998) expressed it:

> *...the transcript is generally an unreliable guide to the activity and process that takes place in a conference.*

One of the reasons for this that the authors (ibid.) cite is that the transcript only records 'final products' and not, for example, the work that went into drafts of messages or indeed any other activities (such as reflection or looking up resources) that went into their production. For example:

> *I found Paul wonderful he would help with all the technology problems that you had but a lot of what he said I hadn't the foggiest idea what it meant. I mean I would get a dictionary out and look the word up and I still didn't understand what it meant.*
> *(Penny, interview 3.1)*

> *I did mostly draft messages, not early on but later on. I found it more useful to draft because it gave me the chance to look at it and change the way I'd said things or change the order I said things in.*
> *(Penny, interview 8.4)*

Whilst accepting that conference transcripts are only a "partial record of the activity of the conference" (Jones and Cawood, 1998) I would argue that they are nevertheless some evidence of what has taken place, albeit not the complete story. In the case of my second research question, (what is the significance for learning of online silence?) I have tried to address this by using critical event recall in the interviews with my fellow students to clarify possible evidence of 'learning in the silence' potentially apparent from the conference transcripts. For example:

> *Sue:* *Had you actually looked at his [Paul's] messages earlier but decided not to post anything?*
>
> *Penny:* *I'd looked at them. ..I perhaps didn't look at the very first one but I certainly was looking at them. By the time he'd done number 3 I was reading them and then when I got number 4 I read them all again and when I got number 5 I read them all again and at that point I errr...*
> *(Penny, interview 13.3).*

I freely accept that attempting to analyse silence is challenging and that there may be no foolproof way of knowing everything that was going on in and outside of the conferences. However, I would contend that my approach has made some inroads into

this difficult and complex area. The results of my analysis of silence are detailed in Chapter 4.

3.7.2 Metaphor analysis

Identifying and analysing metaphor can be challenging. Metaphor analysis enables metaphors to be identified and examined, considers their occurrence, density, and indeed absence. However researcher subjectivity can be problematic in identifying metaphor. There is therefore a danger of over-analysis and lack of rigour (Low, 1999: 49). In this study these problems were addressed by setting clear criteria, using double blind data analysis to check the reliability of the analysis and triangulating metaphor analysis with other methods in accordance with good practice (Cameron, 2003). Accordingly I set criteria (shown below). I also arranged for my supervisor to conduct a blind metaphor analysis of part of the conference transcripts (amounting to 10 per cent of the overall total). I used content analysis and critical event recall to triangulate the metaphor analysis.

In this study, the frequency and type of metaphor used by participants were visible from conference transcripts by using content analysis, however, this technique revealed little about the significance of metaphor use. Cameron (2003: 30) advises caution in claiming to find evidence of thinking as well as speaking by examining discourse. To address this, metaphor analysis was used as well as content analysis and interviews were conducted with the students and the tutor on the researched programme. As stated earlier, critical event recall was used in the interviews to help interviewees recall the online conversations by referring them directly to the conference transcripts. This provided additional evidence of what the participants intended and learned through metaphors. I was also interviewed myself, by my then supervisor, which gave me an opportunity to examine my own mental and emotional processes.

In order to conduct metaphor analysis of the online discussion conferences I broadly followed the procedures advocated by Cameron (2006) and set out in Figure 3.1 below. In terms of that procedure, my research questions were already set, therefore I proceeded to identify metaphors, build semantically connected groups (which I called clusters), analysed the distribution of metaphors, inferred narratives and applied the results to my research questions. I considered how these metaphors contributed to the text as a whole. I did this by first of all reading and re-reading the online conference

transcripts, identifying metaphors and marking them. I then created my own categories for those I had identified, using the criteria shown beside each of them, as follows:

- *primary metaphor* - prominent and clear metaphor, likely to have been intentional and clearly distinguishable from normal idiomatic expression
- *secondary metaphor* - less prominent, possibly unintentional metaphor use, difficult to distinguish from normal idiomatic expression e.g. put in place
- *metaphor clusters* – where two or more metaphors were used in a short space of time within the same posting by an individual, but where the vehicles did not follow the same theme
- *narrative metaphor* – where two or more metaphors were used in a short space of time within the same posting by an individual, where the vehicles followed the same theme and therefore had a story-like (narrative) feel.

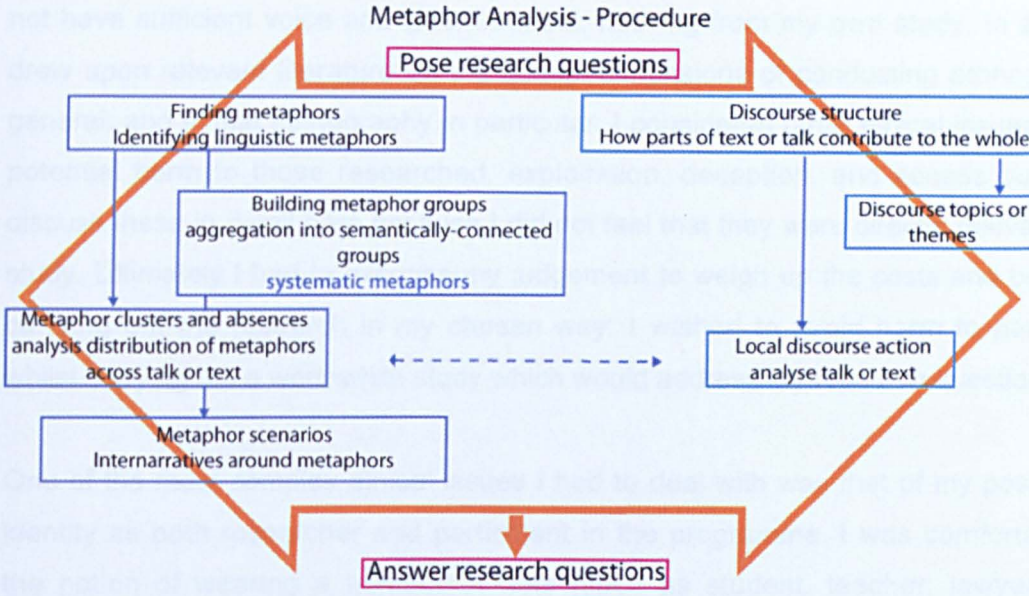

Figure 3.1: Metaphor analysis procedure (Cameron, 2006)

I went back over the conference transcripts and marked these up using a different colour highlighter for each category. I then conducted further analysis of the incidence and nature of the primary metaphors, and narrative metaphors used. Secondary metaphors were not analysed further (except where they occurred as part of a narrative) in view of their role in normal speech. Examining metaphor clusters was beyond the scope of this current work but could be an area for future research. The results of my analysis are set out and discussed in Chapter 4.

3.8 Ethical issues

There are important ethical issues involved in collecting and analysing data from research, whether conducted on the Internet or face-to-face. For example, there is a need for transparency, reflexivity and engagement with the multiplicity of truth and honesties that come from participants' stories (Savin-Baden and Fisher, 2002). According to Sharf (1999: 248):

> *Anytime a researcher imposes his or her framework of analysis on the storied accounts gleaned from other people, whether by in depth interview, participant observation, or some other form of recorded data collection, questions arise about ownership (whose story is it now?) and validity (in what ways has that story been altered through the process of interpretation and the necessity of choosing selected samples of discourse to use as supporting evidence and illustrations?).*

I chose to consider the particular ethical issues discussed in this section taking into account my previous experience of online research as a student/researcher on the prequel to the researched programme (see section 3.3.1) in which I had felt that I did not have sufficient voice and was, in effect, missing from my own study. In addition, I drew upon relevant literature on the ethical dimensions of conducting ethnography in general, and virtual ethnography in particular. I considered other ethical issues such as potential harm to those researched, exploitation, deception, and access but did not discuss these in detail here because I did not feel that they were directly relevant to this study. Ultimately I had to exercise my judgement to weigh up the costs and benefits of carrying out the research in my chosen way: I wished to avoid harm to participants whilst carrying out a worthwhile study which would address my research questions.

One of the most complex ethical issues I had to deal with was that of my position and identity as both researcher and participant in the programme. I was comfortable with the notion of wearing a number of hats (such as student, teacher, lawyer, senior manager and researcher) during the programme and when conducting the interviews. For me these were all simply different aspects of myself, but I accept that this may have been confusing for others. For example, I felt the need to change my interview style from detached questioning (researcher) to discussion (student) (as detailed in 'Interview style' in section 3.6.5). As Hammersley and Atkinson (1995: 265) put it, even when the fact that the research is taking place is made explicit, it is not uncommon for participants to quickly forget this once they come to know the ethnographer as a person, and it would be disruptive for the researcher continually to issue the equivalent of a police caution. However, as Pole and Morrison (2003: 150) point out, research participants bring their own sets of understandings and meanings about the research as well as the role that ethnographers play. Part of the ethical complexity is recognising

and interpreting the way that your identity as male or female, outsider of insider, youthful or mature, affects and is reflected in the collection and analysis of ethnographic data.

Informed consent, transparency and privacy

In order to conduct my research I first of all obtained permission from the providing institution and undertook to abide by the conditions it imposed on this, such as not conducting interviews until after the assessment board and obtaining the consent of my fellow students in the way that it laid down. This involved the tutor contacting each student to tell them about my proposed research and seeking their feedback on this. When he was satisfied that all the students were in agreement with what was proposed and no adverse feedback had been received, I was asked to post a message in the café area of the discussion board giving them more detail. I obtained the consent of the cohort's tutor and of the Course Director. Before each interview I also explained more about my research and again sought consent. All interviewees were helpful and agreed to participate in the first interviews. There were various difficulties over the second interviews (detailed in section 3.6.5) but these were not of an ethical nature. The providing institution also made arrangements, including obtaining necessary consents, to give me access to the online conference for another student group.

My fellow students were therefore aware that I was a researcher as well as student from the outset and both they and the providing institution consented. However, they (and I) could not have known at the time of consent exactly how I would interpret what was said and what happened or how I would write it up. Even where consent is obtained, therefore, it is arguable that this may not amount to informed consent since, at the time of asking, the researcher may not know how s/he will use the information collected. For example, Burgess's study (1989) into teachers in a particular school involved observing behaviour in the staff common room. He had no way of predicting that racist remarks were likely to be made during the course of a social gathering. Staff knew he was there to conduct research, but could not be told, at the time, how his notes would eventually be used since he, himself, did not know.

A similar issue in the context of online conferences is 'harvesting', meaning collecting and using the words of others (Sharf, 1999: 251). An example would be where a researcher participates in an on-line discussion group accessible to the public and later publishes information given by others in the course of discussions. Participants may

not have anticipated the re-use of their words in this way, and may not have given consent for this. Sharf (ibid.) gives the example of wishing to use and publish information for her research from a breast cancer discussion forum which she had participated in. She had always identified herself and stated her reasons for participating. She later wished to use the words of particular participants and contacted each to seek their permission, even though this was time consuming and meant delays in publication. Eventually all consented. Even though some of the contributions to the forum were private reflections on the sensitive subject of coping with cancer, some of her colleagues still felt the information was in the public domain:

> *During this time period I discussed what I was doing with colleagues at work. Several were incredulous that I had undertaken this task, reiterating that listserv correspondence occurs within a public forum that eliminates the need to obtain consent.*
> *(Sharf, 1999: 250).*

The researched programme may be distinguished from this in that the discussions could only be accessed by those issued with a password, that is, students registered on that cohort, the allocated tutor, the Course Director or others given specific access by the Course Director. However, this illustrates that respecting the privacy of those researched is important and, in terms of research conducted over the Internet, online interactions are sufficiently real for participants to feel their privacy infringed by researchers (Hine, 2000: 23).

In order to address these issues, I was keen to give participants a voice by showing them extracts from the conference transcripts to enable them to give their interpretation of them before I conducted the analysis. The conference transcripts themselves were visible to participants as a true record of what they had said and the fact that the interviews were recorded was also a guardian of accuracy. To an extent, this approach is endorsed by Eisenhart (2001) who points out that there is potential danger to others when the intimate details of their lives are revealed in ethnographic accounts, but also suggests that developing more collaborative relationships between the researcher and the researched, together with a commitment to representing multiple 'voices', including the researcher's, is a good approach to dealing with these dangers.

Anonymity

I have ensured anonymity by allocating different names to participants other than myself and only referring to them by their allocated (fictitious) first name. I have also

removed any other forms of person identification from the transcripts (Rourke et al., 2000). These pseudonyms were chosen to reflect the gender, ethnic origin and type of the real names. It is relatively easy to preserve anonymity for participants on online courses because, unlike public forums such as open access newsgroups and unmoderated chat rooms, the sites where the conferences take place are password protected so that access is restricted. In addition, as a further safeguard, learning sets on this course are moderated by a tutor who knew about and consented to my presence as student/researcher and was in a position to monitor what I and the other participants were saying and to interrupt if necessary. I have taken care not to include the name or such details of the programme which might identify the institution concerned (such as the name of Virtual Learning Environment) or the tutor involved on this particular cohort of the programme.

Behaviour and identity

According to Schwandt (2000: 203), the researcher influences what happens. For example, it is important to acknowledge that being a researcher did add to my motivation as a student and it is arguable whether I would have contributed as much to the online conferences or contributed in the way that I did if I hadn't been doing the research. However, I also really enjoyed my time online to the point that I changed my normal daily routine so that I could get up early to log in and post before going to work. Clearly the tutor didn't see it this way; he thought that I was a high poster because he had sent me an email reminding me of my 'duties' as a student:

> *I don't know really. I think the result of it was satisfactory from my point of view (laughter) and I think it was satisfactory from your point of view as well because you've already said you made this decision then that you were going to contribute, you know, get up in the morning....*
> *(Lloyd, interview 13.5).*

This illustrates the complexity of different perspectives on and interpretations of the same behaviour or incident.

There were times, especially in patches of excessive lurking by others, when I was conscious of trying to encourage people to contribute and to make something happen. For example, I thought very carefully about what title to give a particular entry in the café area and eventually came up with something which I hoped was sufficiently provocative to engage people and encourage them to post:

> *The fact of a rather shocking headline seemed to draw people in.*
> *(Research diary 6th November 2002).*

I also purposefully put something about emoticons into one of my postings and asked a question directly to a particular group member because I knew it would interest him:

> *My knowledge that Paul was a 'techie' made me assume he would know how to produce emoticons. I influenced him to do so.*
> *(Research Diary June 25th 2003).*

> *I knew if all else fails Paul will log on, he will be logging on so how do I make him talk? I knew he'd be there the only thing to do is to get him to do something techie that he'll like. So here we go – I felt quite good when I got him in at that point.*
> *(Lloyd, interview 9.4(d)).*

There was some duplicity or blurring of identity at these times because I was acting as a frustrated student who wanted others to participate in the discussions but also conscious that anything I did was also part of my research. Coffey (1999: 22-23) acknowledges this to an extent, suggesting that oversimplification of the 'ethnographic stranger' may be misleading and may render mute the ethnographic process:

> *Too often the tensions between strangeness and over-familiarity are drawn simplistically and crudely. Strangeness is often viewed as a form of epistemological virginity, to be cherished and never regained once lost.*

It became clear from the interview with Paul that I was perceived by him as a student/educational professional even though he knew I was also a researcher. For my own part, there was perhaps more ambiguity: there was not a straightforward researcher/student dichotomy but rather a more complex identity matrix which included other elements such as professional educator and lawyer (the comment box was added later when I was reading through the conference transcripts):

> *We once had a situation with a traditional text-based course where the writer of a module had 'helpfully' included an appendix full of photocopies of other peoples' articles...There had been no attempt to get permission to do this. We appointed someone to go into the issues in depth. Although I am a lawyer I did not volunteer.*
> *(Sue, posting 1.30).*

> ***Comment:** I was trying to assert my credentials here - I must know what I am talking about because I am a lawyer!*

Overall, I accept that there were issues of identity involved in my research but would contend that this would have been, and was, the case with all participants anyway.

3.9 Summary

The guiding principle in determining the methodology and methods for this study was to choose the approaches most appropriate to address my research questions. I chose a

qualitative approach given that this was a small scale study from which I was not seeking to generalise, and that the focus was on people, their learning, behaviour and culture.

Since my research was concerned with how online learners learn and with the underlying cultural aspects of this, I conducted a virtual auto-ethnography, researching an online programme in which I was a student. By participating with a group of online learners I was able to study their culture, their learning and my own. This is a virtual ethnography in that it was conducted online rather than, for instance, in a face-to-face setting (Hine, 2000). It is an auto-ethnography in that it openly makes connections with some of the key previous educational experiences in my life and is in keeping with the concept of making the researcher visible and giving them a voice (Atkinson and Coffey, 1995; Hertz, 1997; Coffey, 1999).

I considered other approaches, such as case study, action research and programme evaluation, and, indeed, have adopted features of these where appropriate. However, overall I feel that the approach I have chosen best meets the needs of this project, especially given its emphasis on studying a culture in its natural state, and builds on my previous experiences, including those within the EdD programme.

My data comprised my field notes, research diary, conference transcripts (191 postings in all) and the transcripts of 14 interviews. I used a combination of different research methods to collect this data, made possible by my ethnographic study. This provided triangulation to increase trustworthiness and enabled me, for example, to compare what was said in the online conferences with what people said in interview. I used critical event recall techniques in the interviews (Tuckwell, 1980; Kagan, 1984; Kagan and Kagan, 1991; Lally, 2002; Steeples, 2004; Carr et al., 2006) to stimulate interviewees' memory of key events and allow them time for reflection on these. I analysed the data taking a grounded theory approach (Glaser and Strauss, 1967; Strauss and Corbin, 1998) in order to generate theory in an area where there were gaps in the theory. I used content analysis using a framework which took into account the work of Henri (1992) and Garrison and Anderson (2003) but using my research questions themselves as the headings to avoid over-coding. This approach proved its worth in that metaphor emerged from the data as a key theme and I was then able to apply metaphor analysis techniques to explore the significance of this (Cameron, 2003).

Being a learner/researcher raises a number of complex ethical issues, such as that of my identity and position as both researcher and participant in the programme. Whilst I was comfortable with juggling 'different aspects of myself', this may have been confusing for others. In particular I needed to change my interview style to accommodate interviewees' view of me. Although I obtained the consent of the participants and they were aware from the outset that I was researching the programme, they and I did not know how I would interpret the data and write up my thesis. However, I showed participants extracts from the conference transcripts in interview and gave them a voice in interpreting these. Ultimately I balanced the costs of conducting the research with the benefits, and sought to avoid harm whilst carrying out worthwhile research to address my research questions.

In the next chapter of this thesis, Chapter 4, I will describe, discuss and analyse the themes emerging from my data (that is, the online conferences and interviews) and the findings arising from my analysis of the data.

Chapter Four: Analysis and discussion. Piecing it together; pulling it apart

Contents

Chapter Four: Analysis and discussion. Piecing it together; pulling it apart

4.1 Introduction

In this Chapter I consider and discuss the key themes that emerged from my analysis of the data. I use and build upon the key themes emerging from my review of the literature in Chapter 2: behaviourism and constructivism and child and adult learning (section 4.3.1) were explored in sections 2.2.2 and 2.2.3; individual learning and learning in social and cultural contexts (sections 4.3.2 and 4.3.3) were discussed in section 2.2.4; and learning and emotion (section 4.3.4) was examined in section 2.2.5). The headings used in this chapter reflect my research questions and key points from the literature review; notably section 4.4 'What did people learn' includes hierarchies of learning which was previously considered in section 2.3.1 and deep and surface learning discussed in section 2.3.2. The significance of silence for online learning (section 4.5) was discussed in section 2.5 and the significance of metaphor for online learning (section 4.6) was explored in section 2.6. This chapter is written is on the basis that, on principle, it is possible to learn through conversation (see section 2.4.1) and through 'conversations' online (see section 2.4.2).

The total data consisted of transcripts of 7 online computer conferences, one social discussion and 14 interviews. 191 individual postings by conference participants were analysed. 8 of the 14 interviews conducted were analysed, as follows:

- 4 interviews with other students in the cohort
- 1 interview of myself (conducted by my then supervisor)
- 2 interviews with the tutor for the cohort.

The following data were collected and considered but not analysed and not used in this thesis:

- 1 interview with the Course Director
- 2 re-interviews with other students in the cohort (one was of limited use and the recording of the other was obliterated by noise)
- 4 interviews with students from another cohort which had immediately preceded ours.

4.2 An overview of the online conferences

A full description of the researched programme was given in section 1.2.5. By way of a reminder, there were seven online conferences and a continually open social (café) area. Each conference was led by one of the participants, who also freely chose the theme for it, and all participants took a turn in this (one did so twice). All conferences were moderated by a tutor. There were sometimes as many as three conferences running at once and participants were therefore able to contribute a message to more than one of these during the course of one session online.

Each conference had its own distinct flavour, as if it were bounded by virtual cultural boundaries:

Conference 1: Selecting and presenting materials. Leader: Paul

This was the longest conference. There was some initial confusion over how to contribute and how to behave. The leader, Paul, made five consecutive postings (apart from the tutor's normal acknowledgement message) before any other student joined in (9 days after the conference start). It was not until 20 days after the first posting that everyone had made a visible contribution. The subject matter of this conference and some of the leader's postings were of a technical nature. The language was stilted and impersonal, for example use of the passive mode: "The sort of things to be discussed here are..." (Paul, Posting 1.1) and use of the term 'one' rather than 'you' or 'we': "...it depends on the course and how much direct involvement one has in its development..." (Paul, Posting 1.5). There was also noticeable use of lists in many postings (for example, Paul, postings 1.1, 1.3, 1.4, and 1.5) and this is explored in more detail in section 4.3.3 Culture.

Conference 2: Virtual Learning Environments (VLEs). Leader: Mark

This conference had a more personal tone with people addressing each other by name. Everyone took part. There were far fewer lists. Gender issues emerged; for example, there were ten consecutive postings by men at the start of this conference before any woman contributed:

- "Glad to see people are interested in VLE's hope it isn't a purely male thing though!" (Mark, posting 2.9)
- "Mark, you hope VLEs are not particularly a male thing and I notice that none of we women have made a contribution yet." (Penny, posting 2.11).

People put up more resources. The tutor was the highest poster. The leader did not summarise and there was no definite end.

Conference 3: Learner motivation. Leader: David

The leader made a rather vague and wide opening posting and Paul (who was the highest poster in this conference) took over by strongly indicating how the conference should be approached, making him seem more the leader than David (this is explored in more detail in section 4.3.4 Learning and Emotion and section 4.5.4 Power). Jane did not take part. There was an academic flavour to this conference. David gave a definite end with a good summary.

Conference 4: Teamwork. Leader: Penny

This was a highly significant conference: almost every contribution was of a higher order than before. It opened with a contribution by Penny which marked a clear change in tone and level in the conferencing. People had settled down and the language was more sophisticated and less stilted. People were analysing and bringing in discussion of books they had read. Yet two people (both male) did not participate at all and Paul participated less than usual. The conference ended in mid air with no summary or ending and no replies to the last posting.

Conference 5: Using a Virtual Learning Environment (VLE) for Teaching and Learning. Leader: Jane

This was a short conference which largely consisted of a dialogue between the tutor and myself. Jane was the leader but she only made one posting and did not summarise or end the conference.

Conference 6: Inclusion. Leader: Paul

This was the second conference that Paul led but only two students (Paul and myself) and the tutor took part. The tutor therefore effectively became a student due to the lack of contributions by others.

Conference 7: The Learner's experience. Leader: Sue

This was the last conference and occurred in the run up to the December holidays. I created a 3-threaded structure, including allocating roles in one of the threads. I was the only person to contribute to Thread 1 and only four people contributed to Threads 2 and 3. Thread 3 also got completely side-tracked at one point by a key message from Paul, criticising the tutor. No-one engaged with the roles suggested.

4.3 How did people learn?

4.3.1 Behaviourism and constructivism; child and adult learning

The researched programme was based on the premise that all the students were adult professionals who were expected to be relatively self-directed and that delivery would be facilitative rather than didactic (see the detailed description of the programme in section 1.2.5). For example, in order to demonstrate that they had met the learning outcome: "Be able to access and deploy appropriate on-line learning resources" students needed to show ability to "independently select and evaluate a range of on-line learning resources and independently seek sources and solutions for integrating on-line learning resources into student learning activities". However, taking up Garrison and Anderson's point (2003: 24) that e-learning is not necessarily inherently learner centred, it is interesting to note that the tutor made a large number of contributions throughout, possibly exceeding what might have been expected of a facilitator.

Each conference had a student leader and the tutor's role was therefore one of overall facilitator. However, he was highly visible at times and often expressed his personal opinions. He even actively intervened in a way which might have changed the direction of a conference, reminiscent of a more didactic style. For example, he normally made a neutral second posting in each conference by way of acknowledging the conference leader's opening posting (such as 'good choice of topic'). However, after one important contribution by the conference leader (Penny) at the start of Conference 4, the tutor made an intervention which might have diverted the discussion onto the specific subject of 'practical experience of team teaching' which had not been mentioned by the leader. This could have risked destroying the new tone the leader had set:

> *Sue:* *Most of your second messages were 'thank you blah blah blah let's see what happens.' This one was more proactive and I was quite intrigued with the tangent that you developed there...*

> *Lloyd: The burden of tutoring online is very heavy ....it can be solved to some degree by team teaching...Quite a lot of the projects people flagged up at beginning are management driven and there was nothing from the chalk face....I saw that as an opportunity to get something which was to do with being the tutor getting the job done rather than all the theory and things which was predominating most of the postings.*
> *(Lloyd, interview 9.2).*

In the event, another student, Paul, combined both the tutor (Lloyd's) team teaching theme and what the leader (Penny) had said. Others were therefore able to continue using Penny's structure and the conference developed back on course.

From Conference 4 onwards, the tutor was sometimes forced to assume the role of a full participant (that is, a student) due to lack of participation by other students (discussed further in section 4.5 below). The ambivalent role of the tutor (sometimes almost didactic, sometimes a facilitator and sometimes a student) does not seem to have had an adverse effect on learning, for example, Conference 4 was actually one of the most learning-rich conferences, despite the issues over non-participation by some students. The tutor's initiative here contributed towards keeping the conference going and enabled those who did participate to benefit.

4.3.2 Individual learning

As stated in Chapter 2, there has been a shift away from theories of learning centred on the psychology of the individual learner towards socio-cultural theories: learning is regarded as a social activity rather than a solo exercise (Bandura, 1977; Lave and Wenger, 1991, Wenger, 1998). Amongst the complexities of networked online learning is the fact that learning may often seem linked with behaviour and apparently solo behaviour may also be bound up in (and difficult to distinguish from) the culture of the online community.

In the researched programme there were clearly times when participants were contributing 'solo' but thinking aloud and putting their thoughts into words in the conferences. This seems distinguishable from the internal deliberations of an individual (Aristotle, 1991). It is also different to solo learning in a classroom or lecture theatre where it is possible for everyone to remain silent throughout. In online conferencing someone has to speak at some time. However, the culture of the researched programme was characterised at times by low participation and low critical

engagement. This group behaviour sometimes resulted in postings by individuals which, whatever (or despite) the intention, were, *de facto*, monologues:

> *Looking back, I do feel guilty that at the beginning poor Paul was logging on loads and posting like fury and I just wasn't out there in support...if you are really strapped for time you just can't do it and then you feel as if you are letting the team down ...*
> *(Sue, posting 4.14 (3)).*

> *The opposite feeling is when you are out there on your own logging in a lot and you are still the one who made the last contribution...*
> *(Sue, posting 4.14 (4)).*

These postings were reflections by one participant, based on analysis of their personal behaviour. Whether or not they were actually intended to encourage dialogue, or contributed in anticipation of a response, force of circumstance meant they were solos because they were the only person participating at the time. In the examples above I was undoubtedly formulating information or ideas in my own words (Harasim et al., 1995: 30) but not receiving feedback and evaluation on these formulations from my peers (ibid.); yet I was still capable of demonstrating thinking skills and constructing knowledge and meanings even without the benefit of the society of the other participants at this time.

4.3.3 Learning in social and cultural contexts

Social space

Learning is said to be a social phenomenon which occurs within a community (Bandura, 1977; Lave and Wenger, 1991; Wenger, 1998). Learning in an online group should expose individuals to other points of view (Brookfield and Preskill, 2005). This seems capable of facilitating a richer learning experience than would be the case if each person was learning entirely in isolation. However, merely creating a defined social space online will not necessarily result in it being used as a social area in the same way as it would be in the real world. In the researched programme, the tutor posted learning-related articles for discussion in the so-called café area and the serious, incisive tone and lack of humour noticeable elsewhere also seemed to prevail there:

> *I think the tone was down to business, businesslike, this is what we're here to do get on with it...the informal café was just as formal wasn't it? The tone is set very early on.*
> *(Jane, interview 5.11).*

This was illustrated particularly by a short discussion (of only five messages) that I led in the café area ('Car crash due to Joyriders'). I introduced a sensitive issue based on a real incident in which someone I knew had been killed in an accident involving a stolen car. I stated clearly what I was hoping for and the limits and then widened it out for discussion with an educational spin:

> *...in posting this I am seeking some kind of virtual support. I do hope it's not considered inappropriate. I'm certainly not expecting anyone to reveal their own private griefs (sic)...But are there any answers to the question 'Why do some people behave like this'? Can we, as educators, encourage people to respect the fragility and value of human life? Is there something fundamentally wrong with society?*
> *(Sue, posting 8.1).*

Whilst most contributors responded with sympathy for the situation, Paul's response reproduced each of the three questions at the end of my posting in bold as if it was the same as a posting in the main conference. His reply ("The family unit is failing"; "without this stability society is doomed to fail"; "basic social and moral values are being more diluted everyday") (Paul, Posting 8.3) surprised and fascinated me:

> *It almost read like a sociology lesson – he hadn't picked up the emotion. He answered it as if it was yet another thread in a learning conference...detached as if he hadn't got the point. It felt weird. I thought wow this is interesting – strange, bizarre, surreal, but hey this is really unusual!*
> *(Sue, interview 12.3).*

In interview, Paul explained his approach:

> *I certainly wasn't the first to reply as you know but then I went off with a factual response that was bulleted almost and bold. Why did I do that? Because I was attempting to answer the question with what I felt to be the answer to it – but I answered it in a 'it's a problem; I've got to solve it' male way as opposed to an empathetic way...*
> *(Paul, interview 15.2).*

I had felt comfortable introducing a sensitive subject for discussion in the café, but the fact that I added an educational angle to this social posting, suggests that I may have felt obliged to keep in tune with the serious educational tone of the other conferences. To illustrate my point that merely labelling an area 'a café' does not mean people will use it as such; it is interesting that others did not feel able to engage in a discussion with Paul about his views on this subject here, even though this was a dedicated social area:

> *I think that was a bit moralistic actually...I thought 'well it's a bit too simplistic Paul here, but I'm not going to argue with you on this one because it's not really the place to do it'.*
> *(David, interview 11.2).*

Community

One of the issues, in terms of creating a social or community atmosphere, may have been the fact that participants generally saw their fellow learners as rather remote and not having the status, for instance, of friends. In interview they described them variously as:

> *Electronic acquaintances.*
> *(Jane, interview 4.1).*

> Fellow professionals who knew the same or more than I did about the subject.
> *(Paul, interview 16.1).*

> *Work colleagues I suppose or fellow learners on any particular course. Meet them on a course and then don't see them again...*
> *(David, interview 7.1)*

Communication in this community was also largely confined to the Virtual Learning Environment, with some occasional use of email between individuals; otherwise there was a culture of no contact outside of the conferences:

> *I don't think a culture had been established where I would contact you and say 'look it's a really good idea but I'm sorry but I'm going to be too busy to be able to contribute,' whereas early on if there had been a culture initiated at the beginning you know it might have been different...*
> *(Jane, interview 13.6).*

> *I didn't actually email anybody [to ask why they weren't contributing]...Maybe in retrospect I could have done that but it seemed to be kind of breach – there seemed to be a lot of unwritten rules. You know you just didn't feel comfortable perhaps doing that.*
> *(Sue, interview 1.9).*

Despite this, the cohort exhibited some of the characteristics of a community of practice (Wenger: 1998). It had a 'joint enterprise' in carrying out the discussions, but whether all students saw themselves as accountable for sustaining these is debatable. It had a 'shared repertoire' in its distinctive language and ways of behaving (for example, the culture of listing, discussed below). It allowed newcomers in at an early stage in the programme, in the sense that members of the cohort made their first entrance at various times, but new people outside the cohort were not admitted. There is also some evidence of apprenticeship in that Paul and myself 'scaffolded' some of the less experienced participants by giving them information and resources and keeping the dialogues going. There are also examples of 'knowing what others know', such as my ability to prompt Paul to contribute emoti-cons based on my knowledge of what he knew and his personality. After a period of low participation by others, I tried appealing

to Paul, directly and by name, to come in and rescue the group by addressing a question to him ("I wonder if you can put one of those smiley emot-icon things on one of these conferences – do you know Paul?"). I was delighted when he responded the next morning:

> *...eventually Paul does take the cue about the emot-icon. When I saw that message I went 'YES! Wow!" He's a champion; he's back in town! I was delighted he'd done that...I knew that he would respond to that. I felt 'I'm reading this person right here – that's something that would get them involved'.*
> *(Sue, interview 11.8).*

By this time I knew Paul well enough to know that, even though he hadn't contributed for a while, he would be out there logging on and this would interest him. I felt certain that this would pull him in because he was a high poster and this was just the sort of thing that, as an IT expert and enthusiast, he would know. For a while people used the emot-icons. I had provided the original idea and Paul the resource; this was good teamwork. I had learned how to collaborate by drawing on the talents that I knew of within the team.

Overall, the group may have lacked the 'mutual engagement' necessary for a community of practice (Wenger, 1998) in that there seemed to be relationships of convenience (rather than deeper relationships) between participants which were also limited in time, as they were unlikely to endure beyond the length of the programme. However, the group could be described as a 'learning community' (McConnell et al., 2004) since members displayed mutual support and were working towards shared understandings in a culture of learning. It was certainly the case that no individual was responsible for knowing everything, as evidenced by the role of the tutor as 'tutor participant' (McConnell et al., 2004) (discussed in sections 4.3.1 and 4.5).

The cohort does not seem to have formed a community of discourse in Mercer and Wegerif's terms (1999). A noticeable feature of the conferencing was the lack of critical engagement between participants. Participants rarely challenged the views others expressed and disagreements were often over behaviour rather than opinion:

> *Nobody added a great deal to what was said. I'm as guilty of that as anybody else 'cos I didn't question, I didn't question what someone else had said; nobody questioned what I said, so neither of us really learnt very much.*
> *(Jane, interview 13.9).*

> *I did find that some people tended to stick to their own areas and not want to sort of broaden their outlook a bit on other peoples' points of view.*
> *(David, interview 5.6).*

As a result, there are therefore a number of instances of what Mercer and Wegerif (1999) describe as 'cumulative dialogue' (where speakers build uncritically on what the other has said), for example:

> *My biggest problem is deciding what to say. I seem to read people's contributions several times before deciding how to respond. And I have had very few thoughts about VLEs as they do not seem particularly relevant to me. Occasionally I think of something and then find someone else has had the same idea - perhaps I should simply respond "I agree".*
> *(Penny, posting 4.20(4).*

> *I concur with Penny's comments. According to Belbin I am a "plant" which by definition does not make me a team player. It is not that I am afraid to make an idiot of myself - I do that often enough in the classroom! It's just getting into the discussions when you only have 10 minutes to spare.*
> *(Paul, posting 4.22).*

There are few examples of 'exploratory dialogue' (where participants engage critically but constructively with each others' ideas) (Mercer and Wegerif, 1999: 85). In addition, some metacognition appeared to occur as a result of self-critical reflection rather than critique of the views or thinking of others. Although not a community of discourse (Mercer and Wegerif, 1999) the group's behaviour may have been more in tune with Mercer's view (2000) of talk as a social way of thinking, in that participants seem to be sharing their thinking rather than critiquing each other's views.

Culture

The dominance of Paul (the leader of Conference 1) meant that his language and procedures shaped the culture developed by the group. He set the tone or ethos, which was universally described by interviewees as "serious":

> *I think Paul has set pattern...for serious messaging and ...for logging in – frequency of messaging. I think Paul had misunderstood...the ethos of course in that I gather from his messaging technique that he's more used to the type of message board where people post questions and expect answers, they're not really conversations...*
> *(Lloyd, interview 9.8).*

Early on, Paul in effect established a 'culture of listing', in that his postings often consisted of very long lists of a largely factual nature and he used a number of closed questions. The result was a series of bullet point or numbered lists, mainly constructed by and added to by him, rather than a dialogue fully involving others. In this sense the discussions lacked the necessary 'exploratory' constructive but critical talk regarded by Mercer and Wegerif (1999: 88) as essential for building a community of discourse. In

interview two students and the tutor made negative comments about the listing; one was neutral and one in favour:

> *Paul's messages were so long with so much on that it was incredibly difficult to think of anything meaningful I could add.*
> *(Sue Interview, 10.2).*

> *I think they [the lists] are very difficult to comment on without appearing critical.*
> *(Jane, interview 13.10).*

> *Paul...puts up quite comprehensive messaging...he doesn't actually ask any questions (open questions). All his postings are very very factual, they don't really lend themselves to people saying anything about them because they might be considered to be criticising him.*
> *(Lloyd, interview 6.2).*

> *I looked at this and thought 'sounds pretty common sensical sort of stuff'...I couldn't really think of anything more to add to this 'cos it seemed quite fine to me...*
> *(David, interview 9.1).*

> *I really like lists. Lists are interesting to me...It concentrated my mind. From the concentration then I would reflect on it and I would think about um er bits of it, not all of it.*
> *(Penny, interview 12.1).*

It is notable that Penny (the one person in favour of the lists) also found some of Paul's contributions hard going, which seems to contradict her previous statement:

> *I read it several times. When he talked about in his fifth one...MS Visual C++6. and I'm thinking..C++6 yes I've not the foggiest idea what it ..and then he's talked about Labview which of course is your Virtual Learning Environment he's talking about. By the time he got on to doing that mm I was beat...*
> *(Penny, interview 13.2).*

As an IT professional/teacher Paul himself may have found the listing culture a natural style, similar to 'memory dumping' perhaps, and helpful for his own individual learning in that it clearly facilitated reflection and further contribution:

> *Basically it was 'let's empty the brain contents out in one go without really thinking too deeply about it. Let's slam it out in sections which is what happened...I tried to produce a structured list. Then I think it was 2 days later I must have had a think about it by that point and then I added some extra bits...*
> *(Paul, interview 2.5).*

However, even he admitted that it may not be helpful for everyone:

> *A list is OK but it unfortunately might not motivate everybody to put something down.*
> *(Paul, interview 2.6).*

Co-operation and collaboration

Much has been made of the potential of the interactivity in online collaborative discussions for fostering 'mindweave' and synergy (Kaye, 1989; Underwood and Underwood, 1999). However, collaboration is normally associated with working together on a particular task or 'e-tivity' (Salmon, 2002) whereas, in the researched programme, there were no set tasks for the cohort to accomplish and, in a sense, talk itself was the task:

> *Collaborative for me is solving problems, asking and answering questions and learning something. Just discussing (like this one here) I don't learn anything ...so that's not a collaborative learning experience for me – it's a conversation.*
> *(Jane, interview 13.8).*

> *It was very unstructured, just discussions...I felt I learnt more about the experience of taking part in a conference where not everybody turns up and there was a lot of lurking than I did about the subject matter...I tended to be giving others ideas rather than getting new stuff from them.*
> *(Sue, interview 8.1).*

Despite the lack of tasks, there were occasional examples of participants collaborating to solve problems, such as in Conference 6 (Inclusion) where the tutor presented a problem with a technological aspect and others came in with possible solutions:

> *One of the biggest headaches I have in my teaching work...is assignments, essays, project work, etc. submitted in a variety of incompatible file formats.*
> *(Lloyd, posting 6.18).*

> *Why not get each member of a learning set to send all the others a short piece of work... You could allocate each person a particular format in which to present it eg PowerPoint, pdf file etc. Then open up a conference in which everyone discusses the experience from an e-moderator's perspective.*
> *(Sue, posting 6.19).*

> *I like your suggestions as to the kinds of activity which could be used...My feeling is that the best solutions are probably 'human' rather than technology led.*
> *(Lloyd, posting 6.20).*

> *Make it clear that if a student sends something in an incompatible format you will send it back.*
> *(Paul, posting 6.21).*

Collaboration was hampered by the lack of participation by some individuals. At one point in Conference 4 (Teamwork) I was feeling particularly frustrated at the large gap in postings and used a number of devices to tempt people back in to contributing. I tried to get the other participants to look at the section where each person's number of postings and log-ins were recorded, hoping to shame them into putting something up. I tried humour (references to animals mentioned in Gilly Salmon's book: Salmon, 2002) and moral blackmail ("I'm feeling lonely"):

> *Oops, I seem to be replying to me! I wonder if this is the on-line equivalent of talking to myself?!*
> *(Sue, posting 4.8(1)).*

This eventually resulted in bringing people back into the conferencing, to the benefit of the group's learning.

The tutor's attitude towards learning and collaboration, described as 'laissez faire' and 'too reserved' by Paul (interview, 10.1), may also have been an influencing factor in the periodic lack of participation and collaboration:

> *Lloyd:* *You cannot make people take part ...ultimately if they do the course entirely passively, lonely and only post messages enough to stay in the course without breaking the four week rule...*
>
> *Sue:* *They can still pass*
>
> *Lloyd:* *...and put their portfolio in, there will be an argument about it in the moderation meeting about whether we should allow this person to pass or not but I would argue for them to pass...*
>
> *Sue:* *...if you put me in a lecture theatre as a student I'd be on the back row and I wouldn't say anything. I wouldn't really need to, you see. But if you say to me 'right you're online in a collaborative conference', the difference is if we all abstain there won't be anything at all...*
>
> *Lloyd:* *Yeah...A tutor would argue against my case that they haven't collaborated therefore not met the assessment criteria. My argument would be 'yes but learning has taken place'. I judge everything 'has learning taken place' and I think that learning has taken place. I don't think the portfolio is an exam.*
>
> *Sue:* *For that individual some sort of learning may well have taken place, but in a sense they have kind of let the group down... We might all have learned more if they'd taken part....*
> *(Lloyd, interview 5.20-5.22).*

Despite these factors, learning was occurring. For example, in Conference 4 (Teamwork), although there was a noticeable amount of lurking, all those who did take

part evidenced metacognition (see section 4.4.2 below). Even one of those who participated relatively infrequently acknowledged:

> *I got other peoples' points of view, looking at different perspectives that they're placing on particular subjects.*
> *(David, interview 5.7).*

Dillenbourg's view (1999: 7) that, even where there is collaboration and synergy, there is not necessarily the interaction that leads to collaborative learning, may be turned round in this context to say: there was evidence of learning, although there was less than optimum collaboration.

4.3.4 Learning and Emotion

As previously stated, a noticeable aspect of this cohort's online culture was the lack of critique of each other's contributions. To this extent, the group may have lost the positive benefits of cognitive conflict and its resolution (Littelton and Hakkinen, 1999, Scanlon et al., 1999; Weiss and Dillenbourg, 1999). This may have been partly because of the culture set by the tutor who was uncomfortable with criticism. For example, in interview he often avoided answering questions which might expose him to critique. Due to an incident during a previous online course, he was keen to avoid conflict and emotion:

> *Every message that goes on [the discussion forum] you have to look at it totally flat. So if you think there's emotion in there you've got to get rid of it.*
> *(Lloyd, interview 11.4).*

This has echoes of Paul's reaction to the 'Joyriders' thread in the café area, where he says he approached it in a:

> 'it's a problem; I've got to solve it' male way as opposed to an empathetic way.
> *(Paul, interview 15.2).*

Is it significant, therefore that the two most dominant males (Paul and the tutor) both had an attitude of taking the emotion out of postings? Can gender mix in a group affect the opportunity to learn by experiencing emotion or particular types of emotion?

Students rarely openly disagreed with each other's opinions; however, a very brief exchange in Conference 7 (The Learner's Experience) was literally a '*flash*point'!

> *Websites with all the flash etc would be very nice if I had time to play but mostly I just want to get to the point!*
> *(Sue, posting 7.2.5).*

> ***Flash, etc has its place and it is not "to play" but generally Flash is employed badly or just because they can.***
> *(Paul, posting 7.2.6).*

> *Thanks for those points Phil. Having read what you say I have a feeling that I'd like to actually see some examples. Do you have any examples of good and bad use of technology that we could all look at...?*
> *(Sue, posting 7.2.7).*

The sub-text here was that I had challenged the status of 'Flash' by associating it with play. Paul's response (which was typed in Bold) was to refute my claim directly by making a clear, authoritative statement that "Flash is not "to play"". This brooked no contradiction and seemed designed to end all further discussion on this issue. In doing so, Paul exerted his power in the group, re-established the culture of 'seriousness' and emphasised his IT expertise. However, I then diffused it by thanking him and turned the conversation back onto the possible applications for learning.

Paul's strong presence and influence meant that his views tended to prevail on the rare occasions when there were conflicting ideas, even where he ostensibly seemed to be happy to bow to the will of the majority. For example, he disagreed with, and ultimately prevented the adoption of, my suggestion of putting the logs (progress reports of participants' own e-learning projects) online, even though two other people said they were in favour and the tutor said he was willing to arrange it:

> *I don't see it as being a benefit. I find it easier to keep things separate. But if everyone wants it then OK.*
> *(Paul, posting 2.27).*

> *The blog thing. I just said I don't agree. I hoped people would agree with me but they didn't. Probably because I'm a teacher that I'm more vocal about things than I used to be because if I see something I don't think's right I will make a point of saying about it.*
> *(Paul, interview 10.15).*

Interestingly, this idea was taken up and implemented for later cohorts:

> *The next [course] will involve posting logs on [the VLE]. Your input has helped in this.*
> *(Lloyd, posting 7.9).*

A difference of perspective in Conference 3 (Learner motivation) led to learning about how to open a conference. David, the leader of the conference, opened it in a rather simplistic way:

> *"I think learner motivation is an important issue...so what do you all think?"*
> *(David, Posting 3.1).*

This opening could be seen as a rather obvious statement: if learner motivation is not important why lead a conference on it? His posting was also very wide and he did not suggest any structure for the conference. Almost predictably, the more confident and dominant poster (Paul) leapt in with a list and a short final comment, written in the imperative mood (my underlining), as to how the subject should be approached:

> *If we are looking at learner motivation we should consider...[sets out a list of 10 specific things]. This is not exhaustive but these are points that quickly spring to mind. Others can add to this.*
> *(Paul, posting 3.2).*

However, in this instance, the tutor then came in and disagreed, effectively saying that Paul's posting (3.2) was too wide. The tutor suggested the discussion should be limited to learner motivation in the context of online learning (Lloyd, Posting 3.3). In interview, Paul said:

> *I thought he was right. I thought well I'm very, very general... I got carried away. In hindsight...my areas might be better if you're doing a 5,000 word essay on motivation or more, his are more specific to the area in question. I'm firing a scattergun approach to it now by hitting everything instead of focussing on the thing.*
> *(Paul, interview 14.3).*

Penny clearly learned from this exchange because, in the next conference, which she led, she narrowed the parameters for discussion from the outset:

> *Teamwork is a very complicated issue and I am going to limit it to the way in which we set up teams for our online teaching.*
> *(Penny, posting 4.1(1)).*

In another incident of conflict, outside of Conference 1 (Selecting and Presenting Materials), I learned about how and how much to contribute to the conferences. Due to a misunderstanding, I received an email from the tutor informing me that I was not meeting the contribution requirements for the course. I was extremely upset and angered by the tone and content of this email:

> *I tried to do a short message, very general not too wonderful. I felt better putting something on. A few hours later the same day I put another message on. I felt the tone of the email from tutor was affecting me – the quantity of my contributions went into a frenzy of putting as much on as I possibly can...*
> *(Sue, interview 10.3).*

Clearly the effect of the email was that I learned to increase my contributions. However, in interview, the tutor seemed reluctant to change his approach:

> *Sue* *Well, we had a bit of a sort of a barney at the beginning didn't we over that?*

Lloyd *Yeah*

Sue *We got off to a good start there didn't we!*

Lloyd *Yeah. But I mean it's a difficult thing ...all you can be is factual – all you can say is 'You haven't done as it says that you should do...'*

Sue *Do you think you would, you know, consider doing something a bit shorter and more 'Is everything alright Suey' kind of thing as a result of our little sort of exchange on it?*

Lloyd *I don't know really. I think the result of it was satisfactory from my point of view (laughter) and I think it was satisfactory from your point of view as well because you've already said you made this decision then that you were going to contribute, you know get up in the morning....*
(Lloyd, interview 13.4 and 13.5).

Possibly the most memorable exchange in the programme involved a critical incident of conflict in Conference 7 (The Learner's Experience) in which Paul openly criticised the tutor on the discussion board:

> *I remember stating this point before regarding that we don't seem to get any feedback during this course so it is hard to know how we are doing. It is a bit like sailing at night with no stars for navigation! Forget "longitude" we need "Lloyditude" but our digital sail journey appears to take place before this was invented. I know we are supposed to get feedback from our peers but lets face it (certainly in my case) this is about as often as we get told we are doing a good job by our manager - not often enough.*
> *(Paul, posting 7.3.3).*
>
> *I take your point. I have had quite a dilemma here...I agree with you entirely that more opportunity for tutor led feedback and guidance is desirable. Group collaboration and messaging has not been as we would have hoped it would be throughout the course...*
> *(Lloyd, posting 7.3.4).*

Asked why he had chosen to criticise Lloyd 'publicly' in a conference, Paul replied:

> *I would have emailed him about it...but it was better off on the discussion thread 'cos everybody could see it. I'm quite happy to say anything in front of everybody...I didn't know whether people would agree or disagree.*
> *(Paul, interview 10.14).*

Overt criticism of teachers by adult students, resulting in cognitive conflict and learning, may be more likely to occur in an online environment than in a face-to-face situation. This may be due to the physical separation of the protagonists and their relative equality of power online. In a face-to-face situation there is the possibility of physical

violence, but the facilitator may be able to sense and see a build up of tension and step in earlier to prevent it going further. Paul's 'Lloyditude' posting marked a change from his covert criticism of the tutor to overt criticism, building on a number of comments he had made in various previous postings about lack of tutor feedback. However, the absence of body language or 'vocal cues' (Burge, 1995: 158), may have made it harder for Lloyd to foresee and forestall this.

The incident itself, and the parties' commentary on it later in interview, revealed the subtext which seemed to be a battle of power and clash of egos between the two men involved. From a learning perspective, this was a memorable incident from which Paul clearly learned about his own need for feedback, and hence the importance of this for his own learners:

Sue *What do you think you've learnt from [the programme]?*

Paul *I've learnt about how to provide decent feedback on an online course. (Paul, interview 12.1).*

However, the tutor was reluctant to admit that he had learned from this incident:

Sue *Do things like that sort of change the tutor's practice do you think?*

Lloyd *No*

Sue *Do they influence you in any way? ...*

Lloyd *It wouldn't influence me ...because I feel fairly confident in what I'm doing. It would have to be if he jumped in his car and drove here and punched me on the nose!*
(Lloyd, interview (2)2.15).

On the other hand, the tutor did say that he had changed his practice in some regards, although he did not overtly link it to this particular incident:

I try to explain to them [the students]...the amount of the response and the amount of self stimulus we expect.
(Lloyd, interview (2)2.13).

I explain to them that I will not be leading it in so much as I am a sort of a facilitator, a guide to what's going on.
(Lloyd, interview (2)2.13).

In other words, he did not intend to give more feedback to students as a result of this, but did intend to manage their expectations more effectively by telling them at an early stage what his role would be and what was expected of them.

4.4 What did people learn?

In this section I address the second part of my first research question: *what* do people learn through online 'conversations'. I have based my examination of 'what' was learned on the categories identified in hierarchies such as Bloom et al. (1956) with the addition of two important categories omitted from the original Taxonomy, namely reflection and metacognition. I aligned the concepts of surface and deep learning (McLoughlin and Oliver, 1998: 129-30) with the categories of Bloom et al. (1956) so that surface learning equated to lower level learning (such as knowledge acquisition) and deep learning to higher level learning (such as evaluation).

4.4.1 Overview

One of the aims of this study was to establish whether learning through online discussions can be a rewarding learning experience. In analysing the data I was particularly interested in the capacity for networked online learning to facilitate learners to go beyond lower levels of learning (such as knowledge acquisition).

	No. of active people	Analysis Synthesis Reflection	Evaluation Deep learning	Metacog-nition	Totals	No. of postings
C1	7	23	5	0	28	43
C2	7	7	3	0	10	27
C3	6	25	3	0	28	20
C4	5	11	8	8	27	34
C5	*5	3	2	0	5	12
C6	#3	14	2	0	16	22
C7	4	11	13	2	26	24
	Totals	**94**	**36**	**10**	**140**	**182**

Table 4.1: Overview of higher level learning

Key

C = Conference.

* Only 1 posting each from 2 of these people.

\# Tutor adopted the role of student here.

Note: 'Active people' includes the tutor.

Overall, the most frequently recorded types of learning throughout the online conferencing were analysis, synthesis and reflection. Evaluation and other deep learning occurred in all conferences but was most noticeable towards the end of the programme in Conference 7 and metacognition was only recorded in Conferences 4 and 7. These key points are highlighted in red in Figure 4.1.

4.4.2 Patterns of learning in the conferences

The greatest occurrence of lower level learning, such as acquisition of factual knowledge and understanding, occurred in the first conference. This might well be expected, since at this point all the participants were getting used to the conferencing, each other and generally 'settling in'. The technical nature of the choice of subject matter may also have been a contributory factor. An example is an exchange between Jane and Paul in which Jane reconsidered her approach to using video clips in the light of potential long download times:

> *I include a text version of the video & voice over so that users can read the instructions as well - a learning styles issue but would get over the problems of slow download speeds too I guess. Hadn't thought of that till now so thanks Paul.*
> *(Jane, posting 1.37).*

The participants themselves, when asked what they had learned, generally focussed on lower level learning such as knowledge and understanding:

> *I felt I didn't learn a great deal to be honest. I picked up wee bits and things you know picked up a few things but generally there was nothing startling that I felt I'd picked up to be honest.*
> *(Jane, interview 2.2).*

> *...some of the websites given were quite useful.*
> *(David, interview 5.7).*

> *I've learnt a lot about VLEs. I had not an idea what a VLE was. It was not something that has ever come into my teaching or my thoughts about teaching...*
> *(Penny, interview 5.3).*

> *It brought current learning fads or fashions [such as reusable learning objects] into my line of vision that I'm now considering are actually rather good and I hadn't considered in any depth before.*
> *(Paul, interview 12.4).*

It is interesting that despite the fact that the participants were all educational professionals, their expectation or perception of learning was at a relatively low level.

Conference 1 showed relatively high instances of lower level learning but fewer instances of higher level learning (such as evaluation and metacognition). This suggests that even if the 'culture of listing' which characterised this conference restricted some learners' ability to contribute to the discussion, it did not prevent learning altogether. It is also possible that listing contributed to a focus on knowledge accumulation and transfer and therefore did not facilitate higher levels of learning. By the middle period of the conferencing (notably in Conferences 3 and 4) higher levels of learning were regularly achieved. For example, Penny had sought expressions of interest in her forthcoming online course and sorted resulting potential students into five groups. In Conference 3 she presented an analysis of each group:

> *Group 3 consists of three people who at the moment have no Internet access. These people can be helped by being given the lessons on disk, but they will have no access to blogger and my answers to their questions. This is a serious problem, so unless their situation improves I think that they will not be part of the course...Group 1 are those who are best suited to the course. This is a group of four people who are motivated, reasonably capable, and who have no problems with using the Internet.*
> *(Penny, posting 3.14).*

The degree of higher level learning in Conferences 3 and 4 could have been influenced by the less technical nature of these two conferences, together with the fact that all participants were now more at home with the conferencing.

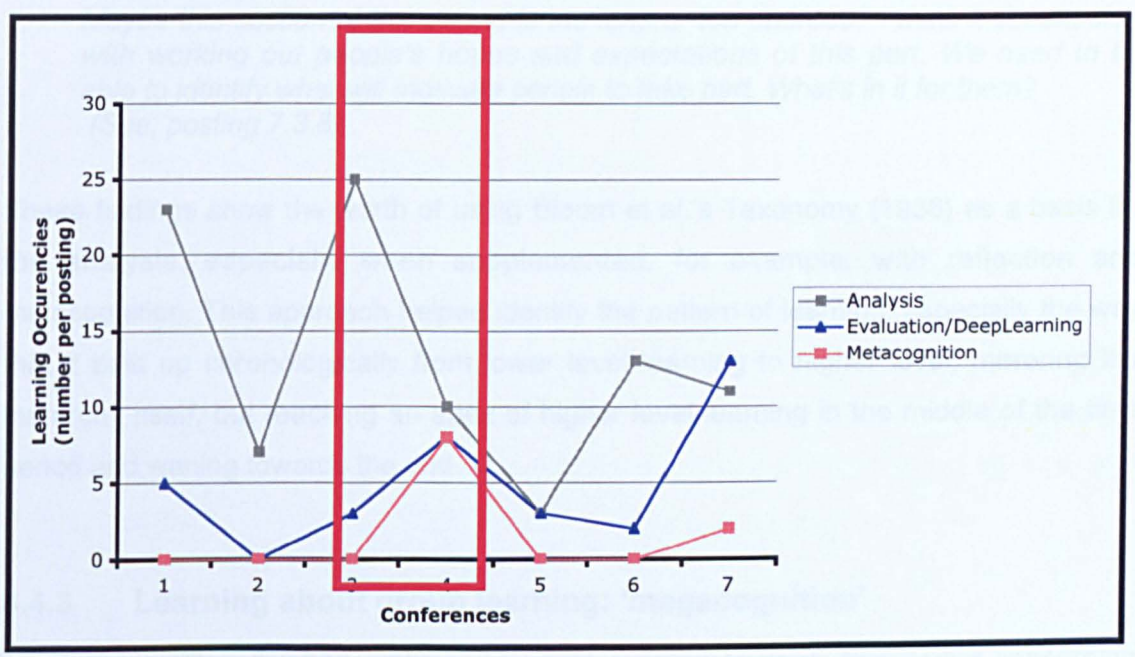

Figure 4.1: Patterns of higher level learning

The red frame in the diagram in Figure 4.1 shows that analysis, evaluation/deep learning and metacognition all reached peaks in Conferences 3 and 4; with analysis and metacognition achieving their highest levels here.

Conference 4 (Teamwork) showed the highest occurrence of application and also of metacognition. It is significant that all of those students who participated in this conference showed metacognition. For example:

> *...my biggest problem is deciding what to say. I seem to read people's contributions several times before deciding how to respond...Occasionally I think of something and then find someone else has had the same idea - perhaps I should simply respond "I agree".*
> *(Penny, posting 4.20(4)).*

Towards the end of the conferencing period there was a noticeable increase in evaluation, in fact Conference 7 (Learning Experiences) showed the highest occurrence of this. This may have been influenced by a natural tendency to look back on the advantages and disadvantages of the learning experience as the conferencing phase drew to a close and participants were focussing on completing their portfolios for assessment. For example, I gave a constructive and reflective 5-point evaluation of the course. This is a significant posting which demonstrates that I had learned from this online experience and was prepared to pass these points on, even though formal evaluation of the programme had not been asked for:

> *Maybe this section of the course is too long or too onerous? I think it should start with working out people's hopes and expectations of this part. We need to be able to identify what will motivate people to take part. What's in it for them?*
> *(Sue, posting 7.3.8).*

These findings show the worth of using Bloom et al.'s Taxonomy (1956) as a basis for the analysis, especially when supplemented, for example, with reflection and metacognition. This approach helped identify the pattern of learning, especially the way that it built up chronologically from lower level learning to higher level, mirroring the hierarchy itself, but reaching an apex of higher level learning in the middle of the time period and waning towards the end.

4.4.3 Learning about group learning: 'megacognition'

According to Flavell (1976: 232) metacognition refers to one's knowledge concerning one's own cognitive processes. However, there was a strong sense (both from the conference transcripts and from the interviews) that one of the most significant types of learning experienced by the participants was learning about how to behave and learn in

a group online, for which I have used the term 'megacognition'. An example is where I ended a discussion thread in the café area earlier than I had intended. I had used the words: "Thank you all so much for your thoughts on this." I learned immediately that, by thanking people, I had unintentionally signalled the end of the discussion.

In Conference 4 it is clear that Penny had learned from the other conferences not to set too wide a parameter for discussions and how to structure them sufficiently, by constructing knowledge from her experiences in Conference 3 (Learner Motivation) in particular. This is evidence of greater self-knowledge but also group knowledge since she has learned about the importance of participation:

> *Essential skills. I feel there are a number of these ...but I think the most important is participating. Everyone must contribute regularly to the project or it will not work. I think we have seen this in this course.*
> *(Penny, posting 4.1).*

Although her posting was long (454 words) it was structured rather than a list and contained points which were expressed as opinions rather than as purely factual and therefore invited discussion rather than closed it down. Her tone was friendly, personal and reflective, with frequent use of "I think" and "I feel". This was vastly different from the stilted and impersonal tone of Conference 1. Her posting ended with a combined closed and open question likely to invite and encourage people to respond:

> *OK folks, do you agree or disagree and what are your thoughts about teamwork?*
> *(Penny, posting 4.6).*

This suggests that, where participants have become accustomed to collaborative conferencing, they can achieve learning outcomes which go beyond knowledge exchange; such as construction of knowledge and 'deeper' understanding (Marjanovic, 1999: 129). They had become aware of what they have learned or need to learn, and, thus, had an understanding of learning itself (Harasim et al. 1995). In a sense was this merely a form of experiential learning (learning by experiencing or doing) (Kolb, 1984)? In which case is networked collaborative learning really a new paradigm, as Koschmann (1996) claims, or merely a case of established theories applied in a different setting?

When asked what they thought they had learned through taking part in the programme some participants specifically referred to group processes, behaviours and learning:

> *It was more the process. I picked up a lot about the process of it [group learning] which is interesting and all part of it too...*
> *(Jane, interview 2.2).*

> *I did feel I had learned things...from the experience of actually almost being part of a cohort that, in my opinion, probably failed... I felt I had probably got more from looking at the dynamics of the group and thinking about why things hadn't quite worked in terms of the number of hits and messages and things like that. Why there was a lot of lurking or lots of people just didn't seem to be present and why it felt like a duet or a solo at times...I learnt more about e-learning and groups on line than I perhaps did in terms of knowledge-type of learning.*
> *(Sue, interview 1.10).*

In the latter case, there are shades of McConnell's experience (2005, 2006) that it is possible to learn even in a dysfunctional online group.

It is interesting that valuable learning was achieved in Conference 4 despite the fact that two people did not participate at all and there were noticeable gaps between postings. In fact, this very situation spurred both metacognition and megacognition in one individual which, in turn fuelled reflection leading to metacognition in another:

> *Is it possible to encourage team members to 'improve' their behaviours? On reflection I wondered if I had been a bit wolf-like in on this course in the past...I felt surprised and rather guilty when I checked the [name] bit of this site and found that I seemed to be making quite a lot of postings but wasn't logging on very much, comparatively. I have therefore decided to become more of an 'elephant' (steady - visits most days) by getting up earlier and trying to log on in the morning before going to work. I hope I will become a better team player as a result.*
> *(Sue, posting 4.10(4)).*

> *I didn't know about the [name] section and now don't feel quite so bad about my slow start and lack of contribution but the thought of being compared to an elephant would really depress me - Gilly Salmond (sic) is no gazelle herself!*
> *(Jane, posting 4.13(1)(b).*

4.5. The significance of silence for online learning

4.5.1 Introduction

Research into networked collaborative learning is often based on analysing the content of online conferences (that is, the postings contributed by participants) in order to assess what learning takes place online. In this section, however, I examine the silence *between* the postings and discussions, in order to consider my research question relevant to this aspect: what is the significance for learning of online silence? I specifically consider whether such silence amounts to a space for learning (especially for reflection) or is a restriction on collaboration and therefore on learning. The basis for this is that it is important to interpret and understand the role of periods of apparent

inactivity as well as observable activity, even if this is difficult conceptually (Littleton, 1999).

I perceived online silence to mean a significant gap between postings, in line with Jaworski's definition (1997: 41-43), which included refraining from speech and failure to communicate and that of Sifianou (1997: 64): the absence of something that is significant. For the purposes of analysis, I defined a 'significant' gap as 3 days or more. From my analysis of the conference scripts, I found that there were broadly three categories of silence which I defined as:

- *total silence:* no-one in the group posting to a particular conference
- *individual silence:* a particular individual not contributing to a conference
- *partial silence:* only one or two students contributing to a particular conference and the others were not.

Categories two and three are not mutually exclusive, that is, when one or two people are contributing but other individuals in the group are not, there is both partial and individual silence occurring.

4.5.2 Occurrence of silence

During the 4-month period covered by the conferencing I identified 14 specific instances of total silence, ranging in duration from 3 days to 14 days, the average length being 5.8 days. To an extent, this seems in keeping with Sifianou's claim (1997) that the length of the silence between contributions to a normal (offline) conversation is culturally-related. This is because the longer periods of total silence in the researched programme tended to coincide with public or school holidays (notably half term and Christmas) when it would not have been a priority (in the wider British culture) to log on. In addition, it is arguable that such lengths of silence had become the norm within the specific culture created by this online group.

Individual silence was acceptable behaviour for some students (notably Mark who only contributed 4 postings in total and did not participate at all in 4 of the 7 conferences (see Table 4.2 below)). It was clearly not for others who strived to keep the conferencing going in periods of non-participation.

	C1	C2	C3	C4	C5	C6	C7	TOTAL
Paul	15	5	8	8	1	7	6	**50**
David	2	4	3	0	0	0	3	**12**
Mark	1	2	1	0	0	0	0	**4**
Jane	8	2	0	2	1	0	0	**13**
Penny	5	3	1	3	1	0	0	**13**
Sue	6	5	3	12	5	8	10	**49**
Lloyd (T)	6	6	4	9	4	7	5	**41**
TOTAL	**43**	**27**	**20**	**34**	**12**	**22**	**24**	***182**

Table 4.2: Number of postings per person

Key

C = Conference T = Tutor *Does not include café area discussions

Partial silence occurred at the start of Conference 1 (Selecting and Presenting Material Online) when the leader, Paul, made five consecutive postings without any other student joining in. It took 20 days for all students to post a message (see Figure 4.2).

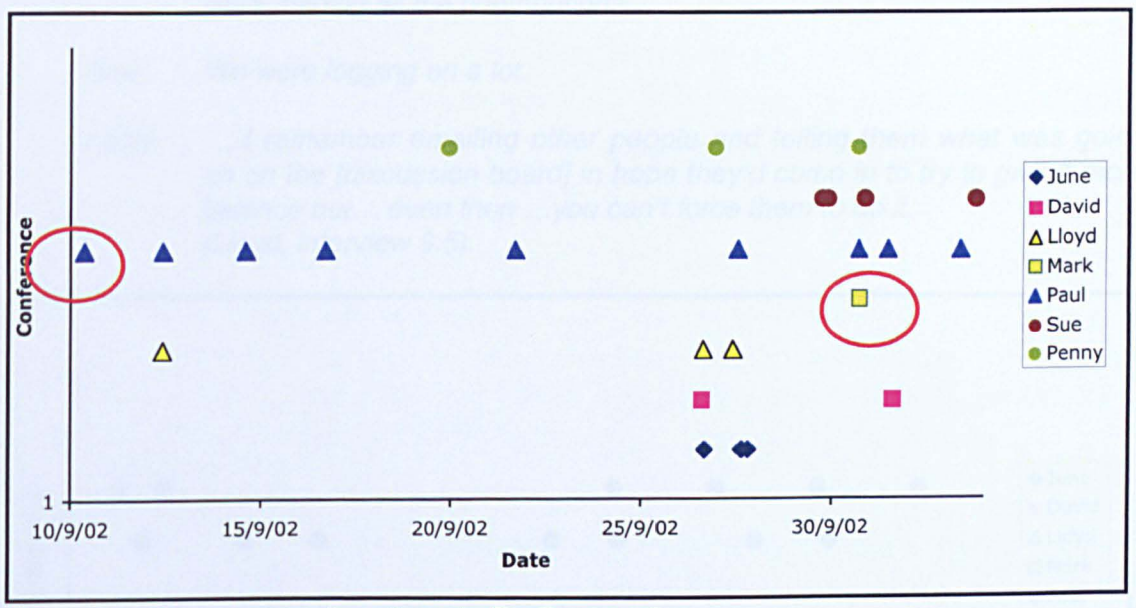

Figure 4.2: Occurrence of postings in Conference 1

It is possible to interpret this as an example of legitimate peripheral participation, where new members were being introduced into the group (Lave and Wenger, 1991; Wenger, 1998; Light and Light, 1999). It appears to have been acceptable for people to take their time before making their first contribution, possibly reading other peoples' messages by way of apprenticeship, before becoming fully contributing members of the group.

Partial silence was particularly noticeable in Conferences 4, 6 and 7, where the tutor was at times forced to 'become a student' in order to sustain the discussions due to non-participation by a number of people, especially two of the male participants (Mark and David) and, to a lesser extent, two of the females (Jane and Penny):

Lloyd: *...I'm doing there which I shouldn't be doing in [this] section [of the course] – in that I've intervened quite a lot because you are on your own I've had no choice but to come in and say something...*

Sue: *My feeling was that you almost became a student because there wasn't an option.*

Lloyd: *That's right yeah...really I shouldn't be doing that. I was caught between two roles. You sussed a way out of it in the end...*
(Lloyd, interview 9.4).

In Conference 6 (Improving Inclusion Online) only two students in the cohort (Paul and myself) participated, as shown in Figure 4.3 below. To an extent I felt as if I was forced into changing roles in the middle section of Conference 4 and 6, almost becoming a tutor myself in order to draw people in:

Lloyd *...I think by this time now ...it had become established that you and Paul were leading all the contributions.*

Sue: *We were logging on a lot.*

Lloyd: *...I remember emailing other people and telling them what was going on on the [discussion board] in hope they'd come in to try to give it more balance but... even then ...you can't force them to do it.*
(Lloyd, interview 9.5).

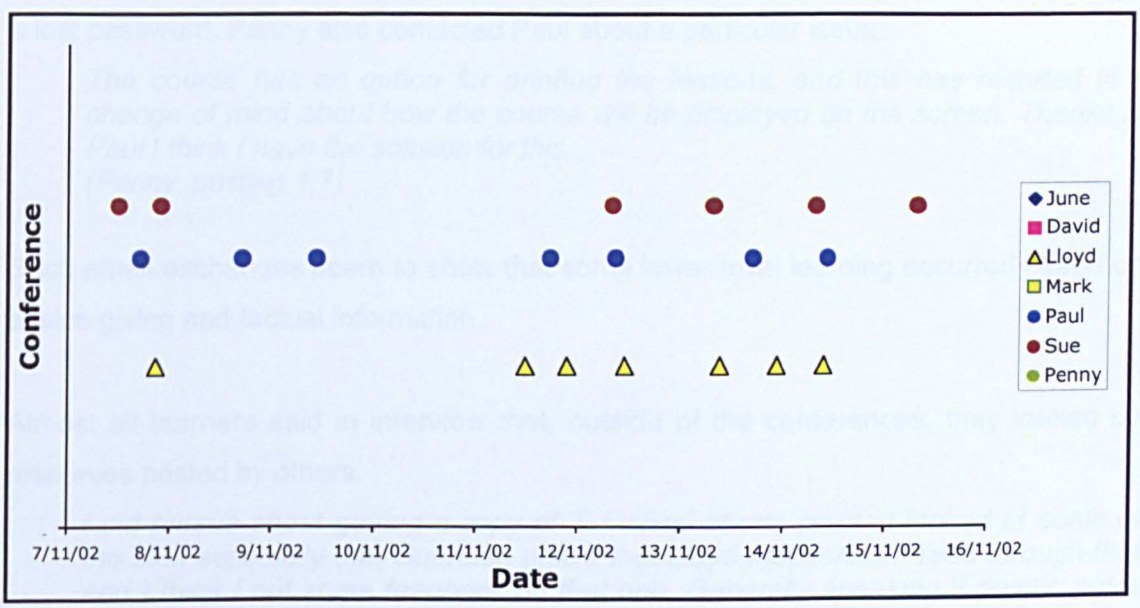

Figure 4.3: Occurrence of postings in Conference 6

Conference 7 (Learning Experiences) was structured differently to the other conferences, with three linked threads, but only three students participated:

> *To be honest with you the motivation wasn't there...I was thinking I've done my work now I've run a conference I've made my contributions, I know I've got my log entries in, it's right at the end, I'm waning. I'm just going to keep quiet now. (Paul, interview 1.7).*

> *I think by the time you put it up the whole thing was petering out a bit anyway if it could have been earlier on it could have worked really well. (Jane, interview 13.4).*

> *[It] came at that point when people were on the way out so much of the enthusiasm had gone from it. I think if it had been run as one of the first ones you would've got more take up on it, more reaction... (Lloyd, interview 5.1).*

4.5.3 Is online silence a space for learning?

Resource sharing and problem solving

Interviewees found it difficult to say what learning had been going on in times of silence. Even when they were taken through the relevant conference scripts in interview and asked specifically about these times, they could not remember whether or what they were learning at those specific moments. However, the conference transcripts revealed some relevant evidence; for example, there was clearly some email contact between participants outside of the conferences, in order to share and solve particular problems, especially over technical matters. Yet, such contact seems to be of a fairly utilitarian or factual nature, for example Penny (Posting 2.22) regarding a lost password. Penny also contacted Paul about a particular issue:

> *The course has an option for printing the lessons, and this has resulted in a change of mind about how the course will be displayed on the screen. Thanks to Paul I think I have the solution for this... (Penny, posting 1.7).*

Such email exchanges seem to show that some lower level learning occurred based on advice giving and factual information.

Almost all learners said in interview that, outside of the conferences, they looked up resources posted by others:

> *I did pursue about getting a copy of 'E-tivities' at one point...I looked at some of the stuff especially that Guardian article that Lloyd mentioned. I read through that and I think I put some feedback on that one. Generally speaking if people put a link on I'd have a look. (Paul, interview 11.1).*

> *I read Gilly Salmon's book – I was prompted to do it by being on the course -and put bits of it up. I did look at Paul's website and a couple of resources...*
> *(Sue, interview 9.3).*

One person put up information about a seminar (Sue, posting 2.21) and found out subsequently that one of the cohort went to it (Jane, posting 5.1); however it is not clear whether this was as a direct result of putting up the information or whether the other person learned anything as a result.

There is evidence that people discovered resources outside of the main conferencing area, reflected, then came back to the conferencing with new thoughts and ideas to share with others:

> *Recommend reading "King Content" section of "E-Learning the Second Wave" recently posted as attachment to message of same title in [the café].*
> *(Lloyd, posting 5.4).*

> *Wow Lloyd - that Article really got me thinking. I wonder if my own experience of e-learning relates much at all to what the author was talking about! What wave am I in - probably fallen off my ancient surf board by now!*
> *(Sue, posting 5.5.).*

After this exchange I came back with some ideas for a discussion on the subject of the main conference (Using VLEs for Teaching and Learning). I had been reading the book 'E-tivities' (Salmon, 2002) which suggested ways to respond to messages encouragingly, and gave the example of a reply which began with "Wow!" (Salmon, 2002: 59). I therefore started my posting using the same word to be positive and enthusiastic, with view to encouraging further dialogue. What I had learned in the silence outside of the conferences directly affected my activity in that conference.

All of this suggests that some learning took place in the silence, in the sense of individuals accessing new information and, in some instances, reflecting on it and then giving feedback or commentary to the group by way of knowledge sharing, in the spirit of collaboration.

Silence and reflection

Silence in the learning process is often associated with reflection, which is thought to be particularly beneficial for adult professional learners (Schön (1983); Brookfield (1995)). One of the benefits of computer conferencing identified in the literature is that

it allows participants thinking time before posting (Buckner and Morss, 1999; Light and Light, 1999; Brookfield and Preskill, 2005). This view was supported by the evidence from the researched programme:

> *I wanted to contribute to and other things I felt well I couldn't. I read quite a lot what was going on but I didn't in all cases contribute to the message 'cos I didn't feel - possibly I needed time to think about what to say so possibly in some cases I didn't have that time to do it.*
> *(David, interview 4.2).*

Research suggests that computer conferencing is good for quiet, reflective people (Light and Light, 1999). In the researched programme those who stated in interview that they needed time to think before posting were generally slow to post and the most silent online. These people clearly need silence as a space for their learning:

> *Sue:* *Was there any specific reason why you didn't post something up if you actually logged on and read..?*
>
> *Penny:* *Yes, yes because I am very, very, very methodical. I sit and think about things for hours. I mean I would wake up in the middle of the night and I would be thinking about it. But I think that's me.*
> *(Penny, interview 2.4).*

Even high posters benefited sometimes from the reflection allowed by being able to read and re-read messages, in line with the experience of Harasim et al. (1995: 194):

> *If something caught my eye I'd reply to it otherwise I'd leave it and if I'd then find I was logging on again and I'd had a think about it and I'd know I wanted to say something about it then I'd put a reply in then.*
> *(Paul, interview 4.5).*

Reflecting on the course as a whole

There is evidence that even those who did not participate often in the conferencing gained from reflecting back on the programme as a whole. This was facilitated and encouraged by the fact that the assessment consisted of a portfolio covering both contributions to the conferencing and progress on the learner's project (implementing an online programme themselves, typically in their workplace):

> *When I was doing my portfolio I learnt more probably doing that than I did through a lot of the discussions.*
> *(Jane, interview 8.3).*
>
> *I think for me the person who probably got the most out of doing it, especially the portfolio, was probably David... The fact that I managed to persuade him to put a portfolio together, I think really he got quite a lot out of that. He didn't get much out of the conferences.*
> *(Lloyd, interview 11.16 and 11.17).*

I really do think that I've learnt an awful lot from the course. And I'm not sure I learnt it as I was doing the course but I'm looking back at the course....producing this portfolio and I think 'Oh Yes I've learnt that' and 'I've learnt this and I've learn the other'.
(Penny, interview 5.1).

4.5.4 Is online silence anti-social?

Whilst, for some people, silence may have been an opportunity to think and prepare before posting, for others it was clearly frustrating and bewildering:

I was a bit frustrated with people that they weren't doing what they should be doing...I wanted regular contributions to be made and they weren't being made...I'm just thinking well this isn't one I know something about but try to put something on this one and stimulate some sort of movement...Bit like dropping some fish food on the top of the tank and hoping somebody would bob to the top 'cos they're dead...
(Paul, interview 2.2).

I would post messages up saying...'Oh dear I seem to be replying to myself'. I didn't really want to come out and say 'Where the heck is everyone?' but I would actually obliquely say 'Is anyone out there?' or 'I seem to be doing a solo' or 'Oh it's developed into a duet with the tutor now.' and things like that so I don't suppose it would take a lot of imagination for people to really pick up that I was wondering where they were.
(Sue, interview 1.9).

This was epitomised in Conference 4 (Teamwork) where there was a significant gap between my posting on 25 October (Sue Posting 4.7) and the next posting on 2 November (shown in the red box in Figure 4.4 below) when I came back in myself in desperation (Sue Posting 4.8). In fact I was the only student to contribute between Penny's message on 24 October and Jane's posting of 6 November (highlighted in black circles in Figure 4.4 below): a gap of some 7 days. I had altered my whole working day to log on regularly and felt really frustrated:

I'm posting a resource up – that might get people thinking. I've tried humour, questions, resources...and Lloyd comes on puts a one liner: "We have pre-course assessments on [another course] and will be using them soon on [this course]." I'm thinking, 'So what – what's the price of fish?' really. Unbelievably frustrating and worrying. I don't know what my role is any more. So I'm back on again putting another long thing on and even at the end, 'Does this provoke any thoughts from others?' I'm really saying 'Look guys I'm trying to provoke you now – come on!'
(Sue, interview 11.4).

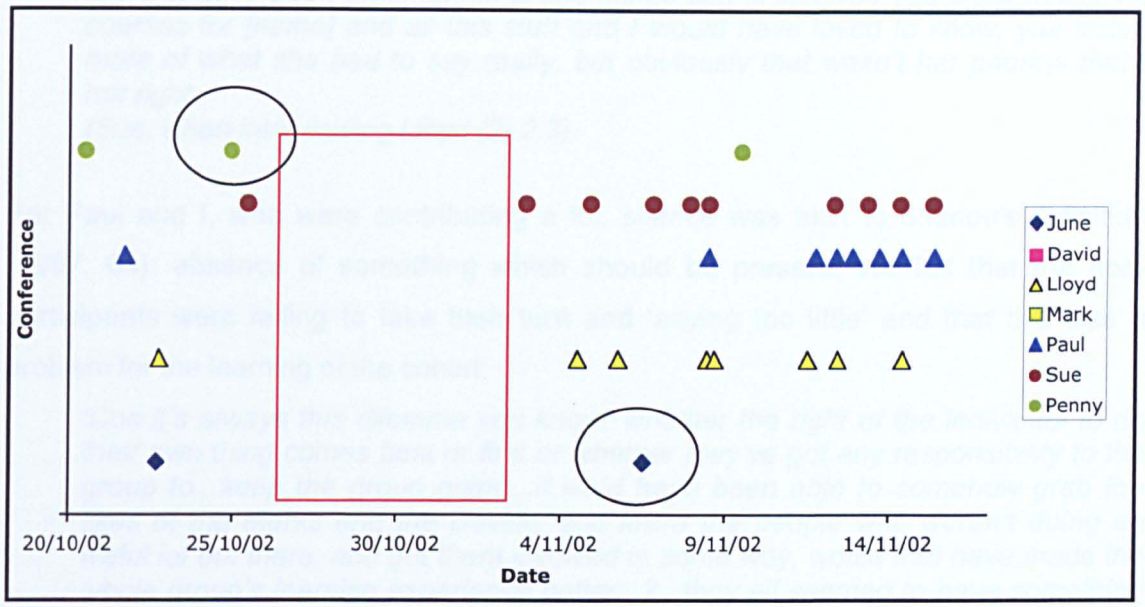

Figure 4.4: Occurrence of postings in Conference 4

The two most prolific posters (i.e. online activists) each felt rather let down by the silence of others. For these people, online silence was antisocial in that it amounted to letting the team down, and preventing the kind of learning that could have been gained through collaboration:

> *...you were so dependent on the other people actually bothering to log on and bothering to post. Sometimes you found yourself kind of sitting out there in virtual land posting like fury and nobody else seemed to be about. You were more or less dependent on others to contribute to the debate otherwise the richness wasn't really there...*
> *(Sue, interview 1.6).*

Paul's view *("they weren't doing what they should be doing"* (Paul interview 2.2 above) seems to suggest that he interpreted their 'unusual delay' (Feenberg (1989: 24) not necessarily as a sign of rejection or indifference (ibid.) but as failure to fulfil their obligation with or without a 'mechanical excuse for silence'. The message that Paul took from this was indeed 'both brutal and ambiguous' (Feenberg, 1989: 34); brutal in the sense that it placed added pressure on him, but ambiguous in that there was no obvious or apparent reason for their default.

In cases where the voices of participants are unheard there may be a feeling that silence is more than a point of view not heard (Hall, 1997: 195-6); the cohort has been deprived of the potential richness of all the possible views and experience which could have provided fulfilling collaboration:

> *I'm thinking about Jane – who's another person a very, very experienced person she'd already been on umpteen online things and is involved you know designing courses for [name] and all this stuff and I would have loved to know, you know, more of what she had to say really, but obviously that wasn't her priority- that's her right.*
> *(Sue, when interviewing Lloyd (2) 2.3).*

For Paul and I, who were contributing a lot, silence was akin to Sifanou's definition (1997: 64): absence of something which should be present. We felt that the non-participants were failing to take their turn and 'saying too little' and that this was a problem for the learning of the cohort:

> *'Cos it's always this dilemma you know, whether the right of the individual to do their own thing comes best or first or whether they've got any responsibility to the group to...keep the group going...if we'd have been able to somehow grab the likes of the Marks and the Davids, you know the people who weren't doing an awful lot out there, and got them involved in some way, would that have made the whole group's learning experience better...?...they all seemed to have something to offer but not to share.*
> *(Sue, when interviewing Lloyd (2) 2.3).*

This seems in line with Brookfield and Preskill's views (2005) that reflective silence may be valuable to individuals, especially to introverted or intimidated students but, by implication, too much silence can have a negative effect on learning. This is supported by the acknowledgement of one of the low posters:

> *Maybe I reflect a little too much and don't do enough...I think it probably didn't help because I was reflecting and not doing it, it really didn't help.*
> *(Penny, interview 12.11).*

Lack of online presence

There is evidence to support the view that it is important to make comments in a text-based environment in order to establish presence (Harasim et al., 1995: 275) and that any response is seen as a success, while silence means failure (Kaye, 1989: 23):

> *...I think to be honest there was you and Paul that were leading absolutely everything and me and Jane who were trying to respond to most things and David and Mark were less with it (laughs wryly). I think that's probably one of the reasons why I didn't get a 'person' for David and Mark because they just weren't online enough.*
> *(Penny, interview 11.2).*

> *I didn't feel I knew anybody or had much insight into individuals particularly...[I had] more insight into you probably because you were very good at posting information and you were very active. People probably wouldn't have a clue and wouldn't have any insight into me at all just as I have no insight into most of the others.*
> *(Jane, interview 15.11).*

If this was a classroom based thing you'd at least see a body in the chair even if it didn't make a comment, whereas in this case there's no body.
(Paul, interview 2.11).

Lots of people just didn't seem to be present...
(Sue, interview 1.10).

Power

In a face-to-face, or even a telephone, conversation it is normal to take turns in speaking and it is breaking a social norm to remain silent when it is your turn to speak. Total silence by all participants is sometimes termed 'awkward' or 'unnatural'. In an online conversation, however, where there is no body language, it can be difficult to know whose turn it is, or whether there are any turns, and silence can be hard to interpret.

Much is made of how power may be exercised, particularly between the sexes, by devices such as deliberate use of silence, interruption, setting the tone and showing expertise in ways that may be difficult to challenge (Dendrinos and Pedro, 1997). However there is evidence from the researched programme of a similar dominance by one of the male participants, Paul, whose clear technical expertise and sheer volume of messages may have resulted in a submissive 'no message' response by others.

Although it may not be technically possible to interrupt in asynchronous computer conferencing, it is possible to dominate and indirectly prevent others 'speaking'. In the researched programme, this was not always gender specific; an example (quoted earlier in Section 4.3.4) is the start of Conference 3 for which David was the leader:

I think learner motivation is an important issue regarding online learning, so what do you all think?
(David, posting 3.1).

If we are looking at learner motivation we should consider...[gives long list of points]. This is not exhaustive but these are some points that quickly spring to mind. Others can add to this.
(Paul, posting 3.2).

Here Paul came in before the tutor's 'obligatory second message' and almost swamped David's contribution by imposing his own content and method of dealing with the subject (listing). Arguably this is the equivalent of interruption online as well as an exertion of power. Another example is where Paul ended discussion of the use of Flash in an exchange with me in Conference 7 (discussed in section 4.3.4).

However, as in conversation, silence is not always a sign of powerlessness (Sifianou, 1997 68, 72). If remaining silent amounts to ignoring the poster's wish for (or perceived right to) a reply, online silence may also be the equivalent of face-to-face interruption, in that it amounts to exerting power. For example, I asked a series of questions at the end of Conference 4:

> *How does an e-moderator encourage busy people to increase their physical presence on-line so that the group can work effectively as a team? Has anyone got any good ideas?....[do e-moderators] need to be experts in the subject area of the course itself eg law or history or just experts in e-moderating. Has anyone got any strong views on this?*
> *(Sue, posting 4.38).*

These never received a reply from any of the other students and the conference ended in mid air with no summary from the leader. This left me with a feeling of being stranded or abandoned, with my questions left unanswered.

4.6 The significance of metaphor for online learning

4.6.1 Introduction

Metaphor occurs when a non-literal description is applied to an object or action. A metaphoric expression can be divided into two parts: the topic (the object being described) the vehicle (the non-literal means of describing it). For example in the expression 'the learning journey', the process of learning is the topic and journey is the vehicle. Essentially metaphor is concerned with understanding one thing in terms of another (Lakoff and Johnson, 1980: 5); consequently metaphors are often used as a learning tool to link unfamiliar concepts with what is familiar. From a positivist viewpoint, metaphor may be perceived as linguistic ornament; whereas, in more recent times, theorists have regarded it as evidence of cognition (Lakoff and Johnson, 1980).

As a student on the researched programme, I was aware of the vivid language used by participants. This was reinforced when I conducted my preliminary analysis of the online conference scripts. The use of metaphor, in particular, was striking and I therefore created a specific column in my analysis grid to record its use. It became increasingly apparent that the link between metaphor use and learning and between metaphor use and emotion were issues worthy of investigation. In a learning environment which relied on use of the written word and where metaphor was very

noticeable, it was important to study why participants communicated with each other in this way, hence my research question relevant to this section: what is the significance for learning of the use of metaphor in online 'conversations'?

4.6.2 Some overall findings

The single most common subject matter for primary metaphor use was time, which was generally viewed in a negative way (e.g. time is an enemy, pressures of time) or as a valuable commodity (e.g. time is spent, saved, a premium). This is perhaps indicative of the importance of time to professional adult distance e-learners juggling work, home and study commitments. Other commonly occurring primary metaphors were on the themes of travel, containers, construction, creativity, movement, transmission, richness and value.

There was a link between choice of metaphor vehicle and the gender of the person using the metaphor. Overall, men tended to use metaphors connected with power, vehicles and time, whilst women tended to use those connected with catering, creativity and the Arts. This was especially noticeable in the case of major narrative metaphors (sailing and astronomy versus ballet). This is in line with those who believe that writing can transmit the body (Argyle and Shields, 1996) and that, when we write, our words embody ourselves in significant ways (Miller, 1991; Land, 2005: 149). It tends to contrast with the words of the cartoon caption quoted by Jones (2005) and the views of Turkle (1995) that in the virtual world no-one knows who you are, and you are who you pretend to be. In the researched programme the self was revealed and identified by language rather than made and transformed by it.

If gender is more visible than this medium would at first suggest then this could pose a threat to the democratising nature of discussion (Brookfield and Preskill, 2005: 3) and to the view that computer supported co-operative learning allows women more equality of opportunity (McConnell, 2000: 105).

4.6.3 The possible significance of metaphor

One of the principles of cognitive linguistics is that metaphor is not just flowery language but a phenomenon of human thought processes and a way of understanding the world (Cameron, 2003: 2; Lakoff and Johnson, 1980: 159). It follows that metaphor,

and the mental processes it entails, are basic both to language and cognition (Goatly 1997: 1). Accordingly, when a person uses metaphor they should experience cognition.

My experience as a student on the researched programme led me to feel that instances of metaphor use tended to coincide with critical incidents and I therefore hypothesised that there might be a link between use of metaphor online and more general higher level learning, that is that which went beyond the cognitive effort used in creating the metaphor. On this basis, I sought to examine whether there was any correlation between occurrence of metaphor and of learning, especially higher level learning by analysing the occurrence and type of metaphor used in the researched programme using metaphor analysis techniques.

4.6.4 Metaphor and learning

To summarise my earlier analysis of occurrence of learning; in the researched programme:

- Conference 1 had relatively high instances of learning, especially of knowledge and understanding and analysis, synthesis and reflection but much fewer instances of higher level learning (such as evaluation and metacognition).
- In Conferences 3 and 4 analysis and metacognition achieved their highest levels
- Conference 4 was significant for the high level of metacognition; all the students who participated in this conference showed metacognition.
- There was a noticeable increase in evaluation towards the end of the conferencing period and Conference 7 (Learning Experiences) showed the highest occurrence of this.

Ostensibly, the above findings are mirrored by the fact that Conferences 1, 3, 4 and 7 (those which had the recorded the most higher level learning) showed the highest use of primary metaphors (as shown in Table 4.3).

Person	C1	C2	C3	C4	C5	C6	C7	Total
Paul	39	13	11	27	8	11	16	125
David	4	2	10				2	18
Mark	2	3	1					6
June	28	1		7	1			37
Penny	10	0	4	9	1			24
Sue	14	3	16	67	11	25	31	167
LLoyd	14	4	10	6	11	16	15	76
Total	111	26	52	116	32	52	64	453

Table 4.3: Occurrence of primary metaphors ***Key:*** *C= Conference*

However, since this did not take into account the relative length of the conferences, I also calculated the number of metaphors per 100 words (taking a corpus approach) as shown in Table 4.4.

	C1	C2	C3	C4	C5	C6	C7	Total
Words in conf.	7752	3321	3870	5515	1499	4194	4192	30,334
Mets per 100 words	1.43	0.78	1.34	2.1	2.13	1.23	1.52	1.49 (Av.)

Table 4.4: Number of metaphors per 100 words

Key

C/conf. = Conference Mets = metaphors Av. = average

This reveals a different picture, in that Conference 5, which showed a relatively small amount of higher level learning, had the highest count of metaphors per 100 words, whereas Conference 3, which had a relatively high amount of higher level learning, had the second lowest count of metaphors per 100 words. This seems to shed some doubt on whether there is a direct correlation between use of primary metaphor and occurrence of higher level learning.

Person	C1	C2	C3	C4	C5	C6	C7	Total
Paul				2	1	1	1	5
David								0
Mark								0
June	2			1				3
Penny	1							1
Sue			1	10	2	1		14
LLoyd	2					1		3
Total	5	0	1	13	3	3	1	26

Table 4.5: Occurrence of narrative metaphors ***Key:*** *C = Conference*

I carried out similar analysis of the occurrence of narrative metaphors during the conferencing period. The results are shown in Table 4.5. The highest occurrence was in Conferences 1 and 4, two of those with the greatest incidence of higher level learning. I also cross-checked this against the number of incidences per 100 words as before. The results are shown in Table 4.6.

	C1	C2	C3	C4	C5	C6	C7	Total
Words in conf.	7752	3321	3870	5515	1499	4194	4192	**30,334**
Narr. mets. per 100 words	0.06	0	0.025	**0.235**	**0.2**	0.07	0.024	

Table 4.6: Number of narrative metaphors per 100 words

Key
C/conf. = Conference Narr.= Narrative Mets = metaphors

This again tells a different story, in that Conference 5, which, as stated previously, showed a relatively small amount of higher level learning, had the highest count of narrative metaphors per 100 words. Conference 4 was the next highest, and that did have a relatively large amount of higher level learning.

However, examining only statistical occurrence of metaphor may not give the whole picture; for example, the impact of particularly powerful metaphor use in Conference 7 does not register in statistical analysis of occurrence. There was therefore a need to

examine the researched programme in a more qualitative way to consider whether the use of such metaphors had educational value. There is evidence from the researched programme that metaphors helped reflection, invited interaction and organised concepts (Cortazzi and Jin, 1999: 161):

> *I felt surprised and rather guilty when I checked the [name] bit of this site and found that I seemed to be making quite a lot of postings but wasn't logging on very much, comparatively. I have therefore decided to become more of an 'elephant' (steady – visits most days) by getting up earlier and trying to log on in the morning before going to work....does this mean that the optimum on-line team is composed entirely of 'elephants' or is a bit of variety helpful?*
> *(Sue, posting 4.10).*
>
> *I didn't know about the [name] section and now don't feel quite so bad about my slow start and lack of contribution but the thought of being compared to an elephant would really depress me - Gilly Salmond (sic) is no gazelle herself!*
> *(Jane, posting 4.13(1)(b).*

This also seems to support the views of Petrie and Oshlag (1993: 580-584) that metaphors provide a basic way of passing from the well known to the unknown, i.e. they are an aid to acquiring new knowledge and moving from what is well known to what is less known in a vivid and memorable way. They therefore have potential as a teaching tool. It may well be significant in this regard, that in 42% of narrative metaphor occurrences the user was adopting a tutoring role and 70% of these involved a student adopting a tutoring role rather than the tutor himself doing so (see Table 4.8 below).

At the very least, metaphors afforded a different way of viewing the world (Ortony, 1993: 5, 13). For example, in Conference 3 (Learner Motivation), as stated earlier, the leader started with a very wide opening posting. I later put forward a series of three headings, all of which were phrased as primary metaphors, by way of a suggested structure for the conference:

> *I agree with those who have pointed out that this is a huge subject. Would it help to consider it in terms of:*
> 1. *Getting started*
> 2. *Keeping going - what happens during a course*
> 3. *Staying the 'distance' - ensuring that learners finish the course?*
>
> *(Sue, posting 3.8).*

This was taken up and used by subsequent participants as a way of narrowing down a wide subject and a useful way of expressing themselves.

The greatest incidence of narrative metaphors occurred in Conference 4 (Teamwork). Whatever the exact subject matter of an online course, it is important for all participants

to learn how to behave and how to learn online and, in this conference, the complexity of language used seemed to be matched by a positive cognitive turning point in the programme, for example there is evidence that students were reflecting on the previous behaviours of themselves and others and learning from them:

> *Looking back, I do feel guilty that at the beginning poor [name of student] was logging on loads and posting like fury and I just wasn't out there in support... (Sue, posting 4.14).*

4.6.5 Metaphor and emotion

General findings

The link between emotion and learning is acknowledged, for example, by the inclusion of an affective (emotional) domain in Bloom et al.'s Taxonomy (1956). Lakoff and Johnson's view (1980: 115) is that one way of expressing and understanding abstract concepts such as emotions, ideas and time is to consider them in terms of concepts that we understand more clearly, such as spatial orientations and physical objects. This is borne out by the fact that, in the text-only world of the researched programme, emotions were often expressed through the device of metaphor, especially narrative metaphor as shown in Table 4.7 below. In nearly 70% of cases where narrative metaphors occurred, they were used to express emotion, and, of these, 83% of the emotions expressed were negative feelings such as frustration, anger or guilt.

No. of narrative metaphors	Emotion	-ve	+ve	Tutor role	Collaborate, Opinion, Share experience	Critical Influence behaviour
5	1	1	0	2	3	0
0	0	N/A	N/A	0	N/A	N/A
1	0	N/A	N/A	1	0	0
13	12	11	1	7	1	10
3	2	0	2	0	3	0
3	2	2	0	1	3	0
1	1	1	0	0	0	1
26	**18** **69%**	**15** **83%**	**3** **16.6%**	**11** **42.3%**	**10**	**11**

Table 4.7: Analysis of reasons for narrative metaphor use

Key: -ve = negative; +ve = positive

These findings tend to support Stone's view (1995) that emotions may be difficult to express or even heightened due to the relatively low amount of information exchange in unit time ('narrow bandwidth'), so that participants may be faced with interpreting and drawing maximum meaning from minimal symbology. This may also partly explain why part-way through Conference 4 the group began to use text messaging symbols/emot-icons for a while, prompted by my direct appeal to Paul (discussed in Section 4.3.3 above):

> *I wonder if you can put one of those smiley emot-icon things on one of these conferences - do you know, Paul?*
> *(Sue, posting 4.14).*
>
> We would have to use the text messaging equivalents:
> *:-) a happy face*
> *:-)) a very happy face*
> *:O) a happy face with a big nose*
> *:-|| an angry face*
> *:'-(a crying face*
> *%-) a confused face*
> *:-(a sad face*
> *;-) a smiley face winking...[gave 10 other examples]*
> *(Paul, posting 4.16).*

Conference 4 was clearly the one with the highest occurrence of narrative metaphors and, as shown above, there was also noticeable use of visual metaphors. Considering such figurative language and modes of expression does indeed, in Kövecses' terms (2000: xi), reveal a lot about the emotion the participants experienced; the dominant feelings at this time being frustration and anger at the non-participation or 'silence' of peers.

Negative feedback

Craig et al. (1998: 124) suggest that online learners may feel more able to express disagreement freed from the constraints of real life social norms. However, this was not generally true of the researched programme, which, as stated previously, was characterised by a culture of 'no critique'. Participants rarely challenged the views others expressed and disagreements tended to be over behaviour rather than opinion. That is not to say that there was no emotional engagement. In this respect a key area for strong emotion and cognitive conflict was that of peer-peer and tutor-learner feedback.

The most notable narrative metaphors tended to occur during 'critical incidents': times of heightened emotion which also seemed to be key moments in the learning process. Such metaphors were used to express negative emotions (like anger, frustration or loneliness) in a socially acceptable way. They were particularly used as euphemisms when giving negative feedback, such as criticising fellow students for non-participation:

> *At one point I felt as if I was doing a ballet solo – fortunately [the tutor] joined in and then it became a 'Pas de Deux' but it didn't feel quite right. You don't know where everyone else has gone. Where's the 'corps de ballet'? You put down what you hope are a few cue lines but no-one comes on stage.*
> *(Sue, posting 4.14).*

> *I'm feeling a bit lonely out here at the moment...If you are back folks do let us know what you think before I become a mouse (visits once a week, reads but doesn't contribute) or even a mole (posts dissembodied (sic) comments in a random way)!*
> *(Sue, posting 4.12).*

It is feasible therefore, that metaphor was being used to make up for the lack of body language online, especially in the case of emotions such as anger, which could provoke a strong reaction if not tempered by the vehicle of a euphemistic metaphor. This is in line with Drew and Holt's experience (1988) that metaphors are frequently used to express feelings when making complaints (e.g. like banging my head against a brick wall). On the researched programme those criticising their fellow learners used metaphor at least partly to spare their feelings. This is similar to Cameron's claim (2003: 23) that metaphor may be used to give negative feedback to learners in such a way to avoid publicly saying that they have made a mistake.

Paul's highly memorable 'Lloyditude' posting (discussed in Section 4.3.4 above) occurred in Conference 7. Paul directly and overtly criticised the tutor in the 'public' forum of an online conference for lack of feedback. When subjected to metaphor analysis this appears as follows:

> *I remember stating this point before regarding that we don't seem to get any feedback during this course so it is hard to know how we are doing. It is a bit like sailing at night with no stars for navigation! Forget "longitude" we need "Lloyditude" but our digital sail journey appears to take place before this was invented. I know we are supposed to get feedback from our peers but lets face it (certainly in my case) this is about as often as we get told we are doing a good job by our manager - not often enough.*
> *(Paul, posting 7.3.3).*

Paul's explanation for making this posting was:

With something as ambiguous as this... you've not no visual clues you can't pick anything up from what's been said you can't see anything ...you need more either direct feedback via email from him to you or indirect onto the message board.
(Paul, interview 10.8).

I thought I'll send that and see what happens and he replied and he did and he stood up there and he explained why he'd done it and I was quite happy that what he'd said was a reasonable justification albeit one that I'm afraid in hindsight he won't do again.
(Paul, interview 10.2).

Lloyd's reaction to this posting confirms that it is possible to feel tangible anger from words emanating from a computer just as from the words of someone physically present (Sanchez 1998: 99):

Sue *...I put something up quite innocuously and Paul goes into his 'Lloyditude' mode. What did you think about all that?*

Lloyd *I was - a mixture of being baffled and a little bit angry.*
(Lloyd, interview 11.1)

I just took it that, you know, it was just a sort of element of sarcasm; it just confirmed to me what I thought: that he hadn't really grasped really what the course was about.
(Lloyd, interview (2) 2.15).

The fact that this incident was regarded as highly memorable by the participants supports Cameron's view (2003: 36) that the vivid use of language may aid recall; indeed, a number mentioned giving feedback as one of the things they would include in their own online courses as a result of completing the researched programme. This seems to demonstrate that cognitive conflict can be useful for learning especially in that it exposes people to different perspectives (Harasim, 1989; Scanlon et al., 1999; Weiss and Dillenbourg, 1999).

4.7 Summary

My data analysis tends to show that higher level learning can be achieved by online networked learning and that such learning may build up progressively, reaching a peak in the middle section of the online conferencing. My results highlight the link between emotion and learning. There is evidence that individuals and the group can learn despite wide scale non-participation and the lack of a community of practice (Wenger, 1998).

My study demonstrates that some learning did take place in the silence, for this cohort, in the sense of individuals accessing new information and, in some instances, reflecting on it and then giving feedback or commentary to the group by way of knowledge sharing, in the spirit of collaboration.

This research concludes that silence may be a space for learning for some, especially those with a reflective online learning preference, but may be regarded as anti-social and detrimental to the learning of the group as a whole because it may deprive them of the benefit of the views of others. Most learners felt that they had learned by reflecting back once the conferencing was over, demonstrating the value of a portfolio as a means of encouraging such reflection.

My study shows that, in the researched programme, metaphor is more than 'frilly speech': there is some coincidence between metaphor use and cognition and, more particularly, between metaphor use and incidences of emotion. It is feasible that metaphor is being used to make up for the lack of body language online, especially in the case of emotions such as anger, which could provoke a strong reaction if not tempered by the vehicle of a euphemistic metaphor. It is therefore important for tutors and participants to recognise when metaphor is being used and to appreciate the possible significance. They need to consider what the person is really saying and then take appropriate action.

I suggest that gender (and, potentially, other personal attributes) is apparent from the metaphors chosen by participants in online discussions; this therefore begs the question of whether online learning is as democratising as is claimed.

In the final chapter, Chapter 5, I will examine the conclusions that can be drawn from my findings in relation to my research questions. I will examine the significance of my findings for theory, practice and policy. I will set out the limitations of my study and suggest areas for further research.

Chapter Five: Conclusions. Completing the Picture

Contents

Chapter Five: Conclusions. Completing the picture

5.1 Introduction

In this Chapter I explore the significance of my findings, discussing some of the key issues which emerge and their implications. I evaluate my research methodology and methods. I examine the limitations of this study, including what remains unanswered, and identify areas that would merit further research. Finally, I reflect on what I have learned by carrying out this work.

This study aimed to explore how and what people learn through networked online learning in order to establish whether learning through online discussions can be a rewarding learning experience. This was set in the context of my personal belief that text which the learners themselves create has the potential to be educationally valuable through the synergy created by human to human interaction as opposed to human to materials interaction. In the examples I give in this chapter I demonstrate the extent to which my research has met these aims. I also highlight the contribution this study has made in exploring the complexity of networked online learning, including the role of silence and non-participation; giving the learner's perspective, especially through its student–centred methodology; exploring the role of language, notably metaphor use online; and through using metaphor analysis and critical event recall to complement content analysis.

The process of learning in general and networked online learning in particular, are highly complex and it may have seemed naive to think that a lone researcher, conducting a small scale study could find answers to such complex questions. Whilst some aspects of the questions remain unanswered, I believe I have contributed an insight into these important issues which is worth disseminating and justifies undertaking this research.

Part of the complexity is the way in which a number of aspects of learning are inter-linked, and how learning is connected with the behaviour both of individuals and of the group. This is the picture that this research has aimed to complete (depicted in Figure 5.1 below). In this chapter I have tried to highlight some of the key insights I have gained into each of these aspects.

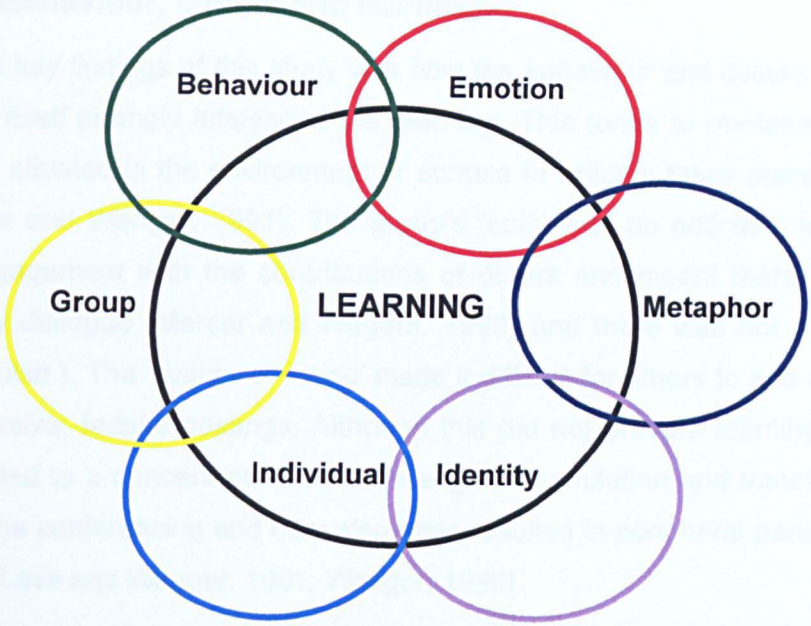

Figure 5.1: The complexity of networked online learning

5.2 Learning

5.2.1 Perceptions of learning

One of the ironies of the study was that learners achieved higher level learning, including metacognition, during the online conferences but, in interview, they were not necessarily fully aware of their own learning. Despite the fact that they were all educational professionals, there was a gap between their perceptions and expectations of learning and the learning itself; for example, they frequently equated learning with surface/lower level learning such as knowledge acquisition. Some also thought they had not learned very much, yet my analysis showed that they learned more and differently than they realised.

On the basis that greater self-awareness may increase learner motivation, tutors may need to manage learners' expectations from the outset; for example by exploring their expectations of the programme, of learning, of each other and of the tutor. Tutors should give feedback on the kind of learning attained, especially higher levels of learning. In order to facilitate effective research, learners should be encouraged to record what they learn and, if possible when it occurs. Devices like blogs and diaries could be included in online courses to aid reflection, encourage discussion and help learners engage more critically and be more aware of their own learning at an earlier stage.

5.2.2 Behaviour, culture and learning

One of the key findings of this study was how the behaviour and culture established by the group itself strongly influenced the learning. This tends to reinforce the view that learning is situated in the environment or context in which it takes place (Brown et al., 1989; Lave and Wenger, 1991). The group's 'culture of no criticism' led to a lack of critical engagement with the contributions of others and meant there was not much exploratory dialogue (Mercer and Wegerif, 1999) and there was not a community of discourse (ibid.). The 'culture of listing' made it difficult for others to add anything to the comprehensive, factual postings. Although this did not prevent learning altogether, it may have led to a concentration on knowledge accumulation and transfer in the early stages of the conferencing and may also have resulted in peripheral participation, albeit legitimate (Lave and Wenger, 1991; Wenger, 1998).

It is significant that individuals learned and the group as a whole learned despite the group's failure to conform to some notions of 'community'. It is doubtful whether a community of practice in Wenger's terms (1998:125-6) existed because the group's life was limited in time and confined mainly to the conferencing. Participants had little contact with each other outside the conferencing other than occasionally to offer or seek advice and exchange resources. However, it is possible that group members supported each other sufficiently for this to be termed a 'learning community' (McConnell et al., 2004). This suggests that even groups which may seem at times to be more of a dysfunctional diaspora than a community of practice are still capable of achieving learning. This confirms the experience of McConnell's research (2005; 2006). It also suggests that it may be more important to focus on the culture created by the group itself, and the effect that this has on learning, rather than on whether the group conforms with the criteria to merit a particular label.

Tutors need to understand the significance of the cultures established online, such as those of posting lists and not feeling able to critique each others' contributions. The tutor may need to lead by example in the early stages of the programme and to facilitate equal opportunities to contribute, for example by posting excerpts from other conferences showing good and poor practice in posting and behaviour and encouraging discussion around these.

5.3 Silence

An important aspect of networked online learning is balancing the rights of individuals with that of the group. It was clear in the researched programme that particular individuals did learn by, or despite, lurking. It was significant that the tutor felt that David (one of the low posters) had got the most from the programme (Lloyd, interview 11.16). The tutor's underlying belief that the most important thing was whether learning had taken place (Lloyd interview 5.21) implied that, ultimately, it did not matter if an individual had contributed little to the conferencing. These values were highly significant and may have prevented the tutor from actively encouraging greater participation.

It is impossible to collaborate on your own; therefore, on a programme for which collaboration is a fundamental requirement, online silence by individuals is antisocial if it deprives other people of group collaboration. This is in line with Brookfield and Preskill's view (2005) that reflective silence may be valuable to individuals but too much silence can have a negative effect on learning. However, my findings go further and show that individuals are saying too little when it becomes a problem for *the group's* learning.

Accordingly tutors need to balance the needs of individual learners with those of the group, so as to maximise opportunities for learning. They need to allow sufficient silence for people to reflect and learn whilst also encouraging optimum participation so that the group can benefit from the views and experience of others. If collaboration is a fundamental of networked online learning, institutions need to have a clear policy on how much contribution is required by individuals and learners should provide evidence of collaboration as part of their assessment. It should not be possible to pass the assessment without making a minimum contribution towards collaboration and assessment strategies should positively recognise and reward contributions towards collaboration.

5.4 Metaphor

5.4.1 Metaphor and emotion

One of the most significant findings of this study was the link shown between metaphor and emotion. In nearly 70% of cases where narrative metaphors occurred they were used to express emotion and, 83% of these were negative emotions such as anger,

guilt or frustration. The most notable narrative metaphors tended to occur during critical incidents where there were heightened emotions, such as anger and frustration, and which were also key moments in the learning process. It is also significant that metaphor was used online as a euphemism, particularly in order to give negative feedback in a socially acceptable way. This tends to support Stone's view (1995) that 'narrow bandwidth' online forces people to find ways of expressing emotion and drawing maximum meaning from minimal symbology. It appears that metaphor may have been used to make up for lack of face-to-face contact, especially body language (Cameron, 2003; Drew and Holt, 1988).

Whilst there was little visible difference of opinion expressed in the researched programme, below the surface there were some real tensions, especially a clash of male egos and values between the tutor and one of the other male participants (Paul). This eventually led to the critical, and metaphor-rich, 'Lloyditude' incident when Paul overtly criticised the tutor online for not giving enough feedback and also (to a lesser extent) criticised his peers for the same thing. In so doing, Paul identified and acknowledged his own need for feedback and later stated his intention of providing "decent feedback" for his students on his own online programme (Paul, interview 12.1). Although Lloyd was reluctant to admit it, I believe it also changed his practice, at least to the extent that he more explicitly managed students' expectations of his role in future cohorts.

This tends to demonstrate the value of conflict for learning, in that it exposes learners to different viewpoints (Harasim, 1989; Scanlon et al., 1999; Weiss and Dillenbourg, 1999). Whilst it would be undesirable to suggest that online conflict should be encouraged, it is nevertheless important for tutors to identify and recognise conflict and critical incidents when they occur and to maximise their learning potential. For example, tutors should encourage participants to reflect on such incidents and to determine how they could learn from them for their own practice.

Course designers and tutors therefore need to understand the significance and power of language, especially metaphors, as a teaching tool and as a means of expressing emotion, especially negative emotion, and overcoming lack of body language. Accordingly, online programmes should be designed to build in ways of encouraging metaphor use. Tutors should pay particular heed to students' use of narrative metaphors and to frequently used metaphors (such as references to time) which may

suggest that students are struggling with competing commitments and are working under pressure which may affect their ability to contribute effectively to online discussions. They should look out for euphemisms and understated expressions of emotion which may be relevant to students' ability or capacity to learn.

5.4.2 Metaphor and identity

My research points to the importance of online presence (Harasim et al., 1995). For example, it is possible to dominate and prevent others 'speaking' and thus to exert power online; it is also possible to have so little presence that your fellow learners don't 'get a feeling about what you were like' (Penny, interview 7.3) and may therefore find it harder to relate to you. This study suggests that the way online learners write can transmit aspects of their identity, such as their values and gender. Specifically there was a correlation between the type of metaphor people used and their gender. This to some extent supports the view that writing can transmit the body (Argyle and Shields, 1996; Miller, 1991; Land, 2005: 149) and tends to contrast with the views of Turkle (1995) that gender is socially constructed and you are who you *pretend* to be.

Learners need to be aware that they may transmit more about themselves than they realise or intend (such as their gender and values) by the language, such as metaphors, that they use. This may possibly be a threat to what has been regarded as the democratising nature of online learning (McConnell, 2000). There may also be implications for people using media such as Second Life. For example, where someone wants to disguise their gender by appearing as an avatar of the opposite sex, will others be able to see through this?

5.5 Evaluation of the research methodology and methods

One of the strengths of being a student/researcher (as opposed to a teacher/researcher, for example) and adopting a 'participant participation' approach was that it put the students at the centre of the study, enabling all learners' voices, including my own, to be heard. This felt similar to the difference between a first hand account and hearsay. It enabled me to have a deeper understanding of what was happening than if I had simply analysed transcripts of conferences that I had not taken part in. I was very much in touch with the culture and emotions of the group, not just the words, and knew how it felt when certain events occurred. Auto-ethnography enabled me to put myself in the centre of my research, via my persona as a learner. I

was able to fulfil my personal objective of finding out more about myself, particularly myself as a learner, and to put the thesis and the research into the context of myself as a lifelong learner.

A perceived weakness of ethnography is the danger of over familiarity or 'going native' (Hammersley and Atkinson, 1995; Coffey, 1999). I did sometimes find that being both student and researcher led to some blurring of my identity. I was once conscious of posting a particular thread in the café area to provoke a response, but this was motivated by my general frustration at lack of participation by my fellow students. It is possible that I may have posted more messages than otherwise, but my previous record as an online student suggests that I am very active and highly visible online, so I doubt whether being a researcher as well as a student made a significant difference in this respect.

Becoming a student/researcher may not be practical for all researchers because of the amount of time involved, and accessibility issues, but a taste of this could possibly be achieved by allocating a student role to a researcher and giving them guest status for a particular online conference.

Interviews

Due to my status as a fellow student, I was able to gain the trust of the interviewees so that they may have been more likely to reveal more. I did find that I had to conduct interviews more like the online discussions than I had first intended because the interviewees were used to my online persona and did not open up to an aloof interviewer. However, this meant the interviews yielded a great deal of valuable information and rich data so this seemed an appropriate and pragmatic adjustment.

The use of critical event recall was a particular success in helping the interviewees remember, reflect on and relive the conferences. It enabled them to look back on what they and others had said and to explain what they were thinking when they made their contributions and how they reacted to other contributions. This acted as useful triangulation for the content analysis.

One of the disappointments was the failure of the second interviews. The feeling of lack of engagement of some of the group members had led me to conduct the first round of interviews as soon as I was allowed to by the providing institution. In the

event, this proved justified as, by the time of the second interviews, people had clearly moved on (in one case, literally) and had, understandably, become disengaged from the study. Added to this was the unfortunate co-incidence of having a technical 'noise' problem with the tapes of the second interview with Paul which rendered them completely inaudible and incapable of transcription. The only straightforward and successful second interview was that with the tutor, Lloyd, which gave me more insight into him as a person. In hindsight I could have taken practical measures, for example by booking dates for the second interviews earlier on, such as at the time of conducting the first interviews. Fortunately, however, there was more than enough data from the first interviews and I do not feel that the study was seriously prejudiced as a result.

Data analysis

Taking a grounded theory approach (Glaser and Strauss, 1967; Strauss and Corbin, 1998) by carrying out an initial analysis of the conference scripts before conducting a detailed literature review, was very much vindicated, as it enabled me to identify and investigate themes arising from the data, such as the occurrence of metaphor, which I may not have considered fully otherwise. It therefore very much proved its worth. I conclude from this that it is important for researchers to be open minded and prepared to investigate what the transcripts of conferences actually show; that is, they need to listen to the voices of the participants.

Using content analysis (Henri, 1992; Garrison and Anderson, 2003) and metaphor analysis (Cameron and Low, 1999; Cameron, 2003; Rivers (2008)(a)(forthcoming)) enabled me to analyse my data directly against my research questions. However, this could have given rise to difficulties if my research questions had changed radically. In this instance they did not. These methods were also designed for analysing what was evident and concrete (such as the words in the conference transcripts), they were not geared for analysing what was not there; therefore analysing the silence of non-participation was challenging. Some of the issues around silence would be easier to address if contemporaneous evidence from learner journals or diaries was available, however, in this instance, my suggestions of including a blog or requiring learners to keep a reflective diary were not taken up.

5.6 Limitations of the study and areas for further research

One of the biggest limitations of the study was that it was a small scale research project in which the size of the cohort led to a lack of generalisability of the findings. It would be useful to consider the issues raised by this study in a larger scale project such as in cohorts with greater student numbers or across a number of different cohorts.

During the course of this project my research questions evolved and changed. Two of the original areas that I was unable to pursue in this study are worthy of further examination in the future. These are how the behavioural and cultural aspects of being in an online community affect the learning experience of students. This would involve examining in more detail influences on online learning such as differences in values between the participants; for example Lloyd and Paul appeared to have opposite political values; Lloyd felt the rights of the individual to have learning were paramount, whereas I felt the rights of the group to collaborate were more important. The other area is what aspects of an online community, if any, may help to reduce the 'isolation' of distance learners. It would also be useful to conduct further research on the issues of silence, lurking and non-participation, especially to understand more about the reasons for this and the learning that goes on in the silence.

The area of research concerning the use of language online, especially metaphor, has wider potential and merits further investigation. As we have seen, metaphors are a means of linking concepts which are familiar to the learner with those which are not (Ortony, 1993). They are therefore frequently used in formal and informal learning situations, not just by teachers and lecturers but by others such as health professionals in patient consultations (for example to help a patient trying to understand heart disease). Despite the fact that metaphors can be misinterpreted by the recipient or taken literally (e.g. in the case of descriptions given by health professionals to patients (Petrie and Oshlag, 1993: 581)), this research shows that they have great potential in many learning situations. Narrative metaphors, in particular, emerge as powerful communication tools.

A disappointment was that, although I found some evidence of a link between metaphor use and cognition, this was not conclusive. Statistically the conferences which recorded the most higher level learning also showed the highest use of primary and narrative metaphors; but, when the relative length of the conferences was taken

into account, this shed doubt on whether there was a direct correlation between use of these metaphors and occurrence of higher level learning. In addition, in the researched programme, 42% of narrative metaphor occurrences coincided with the user adopting a tutoring role, and 70% of these were where a student was adopting a tutoring role rather than the tutor himself doing so. Further research is therefore needed to determine whether there is a link between metaphor and cognition and metaphor and a tutoring role and, if so, how these connections might be utilised in programme design.

The significance of secondary metaphor and the occurrence of metaphor clusters online were beyond the scope of the present study. These areas merit further research. The fact that complex language use by participants coincided with a cognitive turning point in the conferencing (Conference 4) suggests that there should be further research into the connection between other types of complex language use (that is, not just metaphor) and cognition. In view of the increasing use of Web 2.0 technologies in teaching and learning, the issues of online presence, identity and voice should be explored further, especially the issue of how well an individual's values and gender are shown by the language they use.

5.7 A reflection

In 1988 I gave my first lecture to around 240 students, having had no training or theoretical background in education. As an expert in my subject area (law) it was assumed that I knew how to teach. I did not. I had had no training in how to teach or in the theory of how people learn. After that first lecture, I immediately reviewed my own performance and attempted to improve on it by adding visual aids and clear handouts to my sessions and making them more interactive. Fortunately I was able to learn from this experience, to analyse what had and had not worked, reflect on it and come up with improvements.

Twelve years later, in 2000, I was still working for the same higher education institution and was part of a group determining the institution's e-learning strategy when, as related in Chapter 1, the decision was taken, contrary to my expressed views, to put our existing distance learning materials onto a Virtual Learning Environment. I was not convinced of the value of this to our students. I felt I needed to learn more about good practice in e-learning in order to be more authoritative and better able to influence such decisions in the future.

In the summer of 2000, in the role of Course Director, I was chairing a meeting to prepare members of my course team for a forthcoming quality audit. Going through the relevant Quality Assurance Agency Benchmarks, I asked what people saw as the difference between formative and summative assessment, in the context of how they were used in this particular degree programme. A colleague piped up in front of the whole team: "We can tell you haven't got any qualification in education!" At the time I said nothing. I did not know what to say. The literal meaning was true; but the sub-text was a challenge to my right to be Course Director. My real reply was to register for the EdD two months later.

Looking back, I believe that a common issue in all three of these events was my lack of knowledge of education as an academic discipline, resulting from the fact that I was an expert in law rather than education. My EdD studies and research have enabled me to combine greater reading of the literature with experience of being part of a cohort of e-learners. I am now better able to cite evidence to support or contest an approach to e-learning strategy confidently, from a sound base of knowledge and experience. I know that I now have more credibility with all of my colleagues as an educationalist.

When I set out on the EdD I was one of the few students in my cohort who did not already have a Masters' degree. I was therefore very much in the position of learning to be a researcher, especially in terms of research methodology and methods. I have developed an enthusiasm for research which I hope will enable me to take part in research projects and to supervise research students in the future. I have taken the opportunity to disseminate my research by presenting papers on two of my key themes (silence and metaphors) at conferences in 2007: ALT-C: 'Online silence: a space for learning or antisocial?' and iPED: 'Metaphor and the learning journey: nodding dog or satellite navigation?' I was subsequently approached by Professor Lynne Cameron to contribute a chapter to her forthcoming book ('Metaphor analysis: research practice in applied linguistics, social sciences and the humanities'). This is based on my experience of using metaphor analysis in doctoral research to analyse online discussions (Rivers, 2008(a)(forthcoming) and will be published in September 2008. My iPED paper has also been accepted for publication in a book of selected papers from the conference proceedings edited by Professor Paul Blackmore ('Researching Academic Futures')(Rivers, 2008(b)(forthcoming). I hope to build on this by presenting at further conferences and publishing journal articles.

An unanticipated bonus of undertaking the EdD was that it improved my strategic thinking considerably. As a lawyer I had been used to thinking and analysing in logical, often linear, sequences. I discovered that the nature of education as a discipline required a different approach, including being open to more abstract concepts. Originally known for my attention to detail, my holistic or 'bigger picture thinking' has developed considerably, which has been of immense benefit in my role as a senior manager.

One of the big questions that has vexed and haunted me for some time has been why I failed two out of three of my 'A' levels when I was 18. By carrying out this study I believe I have found at least part of the answer. I have learned about how people learn and how I learn. I have learned a great deal about myself, especially myself as a learner. As a barrister I was assertive and confident; yet as a learner I am sometimes neither of these things. I prefer to learn from experience and therefore sometimes lack confidence when dealing with concepts or situations I have not come across before and tend to grind to a halt. Naturally, whilst studying for the EdD, I was frequently cutting new ice and therefore it was a challenging and sometimes stressful experience for me, whilst at the same time being interesting, engaging and enlightening. Realising this has helped me understand and come to terms with the past and will hopefully make me a better educationalist as well as an empathetic supervisor.

5.8 End note

I wish to end with some key messages that I would like readers of this thesis to take away. Networked collaborative learning has tremendous potential for connecting people with the power of the written word as a catalyst for cognitive synergy. Metaphors are important to express emotion and as part of learning; they are not just frilly speech. Doing a doctorate is an amazing experience which will give you far more than an introduction to research: it may also introduce you to yourself.

Appendices

Appendix 1

Pre-interview questionnaire

Personal details	With alternatives, please indicate your choice by using bold + highlighter or bold + underline
Name	
Home address	
Work address Your job title + department	
Phone numbers	Home Work Mobile
Email addresses	Home: Work:
Your age range	20-29 / 30-39 / 40-49 / 50-59 / 60+
Your educational background Do you have a degree or equivalent? What level? What subject was it in? Which institution? What classification/result?	Yes / No Undergraduate / postgraduate /other (specify)
Professional and /or teaching qualifications State subject and year achieved eg PGCE, Member of ILTHE, member of BCS	
Details of your on-line project Type/subject matter of course Academic level (eg HND, Degree) Does your on-line project contain any collaborative conferencing?	Yes / No

What were your personal objectives in taking this Online Programme (OLP)?	
Experience of distance learning Have you studied by traditional (eg text-based) distance learning? If so what course(s) and level? Which institutions(s) How long was each course?	 Yes/No
Experience of on-line learning Had you done the prequel to this OLP before taking this one? If an equivalent of the prequel, which one was it? When did you (a) start and (b) complete the prequel or its equivalent? (month and year) Who was your tutor? How many were in your cohort? Apart from the prequel (or equivalent) have you ever done any other online course? If so: Which course? Which institution? When did you (a) start and (b) finish? (month and year) What level was it? How long was it?	 Yes/No (a) (b) Yes / No
Computer/IT skills Ho do you rate your overall IT ability (including email, use of Internet, Microsoft products etc)?	 excellent / highly competent / competent / not very competent / poor

What prior skills/qualifications might help people get the most from online conferencing?	
High level of education eg degree	Essential / desirable / not needed
Relevant professional qualification?	Essential / desirable / not needed
IT skills - moderately good or better?	Essential / desirable / not needed
Familiarity with the functions of the VLE being used?	Essential / desirable / not needed
A particular learning style?	Essential / desirable / not needed
Good with written communication?	Essential / desirable / not needed
Experience of distance learning	Essential / desirable / not needed
Experience of online learning	Essential / desirable / not needed
Being matched as a cohort in terms of aspects such as team roles and learning styles?	Essential / desirable / not needed
Your pattern of participating How often *on average* did you log on during the conferencing section? (choose the nearest)	more than once a day / once a day / more than once a week / once a week / fortnightly / monthly
On what proportion (approximately) of these occasions did you post a message? (choose the nearest)	0 / 25% / 50% / 75% / 100%
What time of day did you mostly contribute to the conferences? (choose the nearest)	early am / mid am / lunchtime / pm / evening (NB am = morning pm = afternoon)
What day/s of the week did you mostly contribute to the conferences? (state)	
Where did you *mostly* work from on the course?	work (b) home (c) other (specify)
Tutor's Role What is your view of the amount of contributions made by the tutor on the conferencing	Far too much / too much / about right / too little / far too little
Outside of the conferences Other than in the conferences, did you have contact with: (a) any of the other students (b) the tutor	 (a) Yes / No (b) Yes / No

Appendix 2

Interview schedule

Introduction:
Tell me a bit more about yourself
How did you come to be a student on the programme?

1. Prior experience of distance learning and comparison with this programme
Have you any comments about your learning experience on distance learning programme(s)?

Did you find distance learning a particularly easy or difficult way to learn? Easy/difficult

What were the best and worst aspects?

Did any particular burning issues arise?

How did you feel about distance learning?
How did distance learning compare with your experience of learning on this programme?

2. Prior experience of on-line learning and comparison with this programme
How did you feel about the fact that all members of the cohort had previously done an online programme here (or equivalent)?

Consider the use that was made of this, was it: Enough / too much / too little?
eg could we have discussed which cohort and which tutor we had had by way of bonding?

If you did an equivalent to the prequel programme, did you find any issues in not having done the prequel?

Have you any comments about your learning experience on the prequel (or equivalent)?

Did you find being on that programme a particularly easy or difficult way to learn?

What were the best and worst aspects?

Did any particular burning issues arise?

How did you feel about your previous experience of on-line learning?

How did your experience on this programme compare to that of any previous online programme?

- Was one harder/easier than the other?
- If so, in what respect(s)?
- Was there a difference in the 'feel' of the cohort?

- Any general observations/feelings
- Any difference in style/input of the tutor?
- Did you feel more or less isolated or about the same?

3. Your personal objectives in taking part in this programme
(Refer to the questionnaire they've filled in: what were these?)

To what extent were your personal objectives in taking this programme met?

Could anything have been done differently/better to help this?

Did you form any view of what everyone else's personal objectives were?

4. Beginning/ice breaking etc

How well did the ice-breaker/intro sessions at the beginning help you to feel you got to know the others in the cohort?

Can you suggest anything else that might have helped this?

Did you go back and look at people's profiles or intro emails later on?

How well did you feel that the people in your cohort gelled/worked as a team or a community?

Have you any specific examples?

Can you suggest anything else that might have helped this?

5. Your method of contributing to the conferences

Describe the process you went through in posting a message

When you posted a message did you:

Do a draft first before posting?

Read the other messages in the thread once only before making your posting?

Read the other messages more than once before making your posting?
Any other?

Were you aware of the amount/frequency/value of your contributions compared with others?

Did you ever check the function where it records number of log ons and postings? Y / N

How did you feel if you did?

Did you ever check how often your messages had been read? How did you feel?

Would it have helped/hindered/made no difference to know other peoples' patterns of contributing?

Would it have helped/hindered/made no difference to be put in a group with similar patterns of contributing to yourself?

Did you ever log on but not post any message? Yes / No
Were there any particular reasons for this?

Which conference/s did you feel you made the best contribution to - and why?

Was there any conference/s you felt you had little to contribute to - why?

What about the Logs?/(Were there any issues for you around Logs?)

6. Tutor's Role
What is your view of the role the tutor played?

What could the tutor have done more of/differently that might have helped your learning experience?

Any specific incidents you want to comment on?

How did it compare with tutor interventions/behaviour on the prequel (or equivalent)?

7. This programme and learning
Did you find the conferencing section useful or not as a learning experience?

What did you learn from it?

How did you learn from it?

Did it help you implement your project?

Will you use this experience in your own work (other than in your project)?
If so, how?

Did the conferencing section (specifically) help you fulfil your personal objectives?

To what extent did this section meet the learning outcomes of the programme (see below)

The learning outcomes:
1. Understand the main characteristics of online learning
2. Understand the key methods of delivery and types of online learning
3. Be able to access and deploy appropriate online learning resources
4. Understand the main learning management issues for online learning
5. Appreciate the technical requirements and constraints for online learning
6. Demonstrate the skills needed to facilitate collaborative working/group work online

8. Outside of the conferences
Did you have contact with any of the other students or the tutor outside of the conferences and other official parts of the programme? Y / N

Can you tell me about these?

Did any of them help your learning? If so, how?

Did you feel that you had learned in any other way outside of the conferences?

Did you ever get an email from the tutor commenting on your level of participation? Y/N
If so, what was your reaction? How did you feel about it?

Did it affect you subsequent performance on the programme? If so, how?

Were you aware that others received such emails? Any reaction?

9. Section on specific excerpts from conference transcripts (Critical event recall)

10. Open forum
Is there anything you would like to say or ask that hasn't been covered?

Appendix 3

Frameworks for Analysis

1. Original

Metaphor/ language	Silence	Kind/ quality of learning	learning styles	Community/ Behaviour/ culture

2. Detailed: types of learning column

Unless two types of learning are present which are very different I will record the highest level achieved

Knowledge understanding/ surface learning (detail)	application	analysis synthesis reflection/ experiential	evaluation/ deep learning (holistic)	metacognition

Appendix 4

Sample of content analysis: Conference 1

Metaphor/ language	Silence	Kind/ quality of learning	Learning styles	Community/ Behaviour/ culture
1.1 Paul the sort of things to be discussed here, we etc (uses the infinitive impersonal + sounds imperative - command) **1.1 Paul** My idea, we, our, we **1.2 Lloyd** I think this to be an excellent first choice of discussion topic. (Also uses infinitive + superlative) **1.2 Lloyd** Yes Paul, I think Addresses Paul directly (more personal) **1.2 Lloyd** Does anyone have a checklist ... (actually implants the listing idea?) **1.3 Paul** I will, make a start on this then maybe we could all add our opinion. We, we our – stilted and impersonal.	**1.7 Penny** Feedback from log and help from Paul re display of info on screen (technical) **1.24 Sue** I answer Mark's point re copyright I had had to do some research on this offboard	**1.7 Penny** from log and help from Paul re display **1.17 Jane** Moat of the stuff I find is information. It doesn't become knowledge until fashioned into a learning experience (paraphrase) Recognises the difference betwn info & knowl with her own practice so why all the lists? Situated? **1.30 Penny** It had never occurred to me (new knowl re copyright) **1.37 Jane** has learned something about slow downloads from Paul (technical)	**1.22 Paul** Quick thought as I read yr comments? Reflector? **1.27 David** Has taken 5 days to pick up Lloyd' point re dream job Reflector? **1.39 Paul** our job should not be focused on the material but on helping to transmit this to our students... (has a didactic view of education?)	**1.1 Paul** = list (uses Nos 1,2) **1.1 Paul** Asks 2 open questions but doesn't use? (What issues if any do we make...) **1.2 Lloyd** Praises Paul for good choice of topic. Time for some response from the rest of the team I think . Asks a closed question (draws them in, indicates this is a team effort + suggests a format – checklist – tutoring skills) **1.3 Paul** = list Asks a series of mainly closed questions **1.4 Paul** = list Asks a series of mainly closed questions **1.5 Paul** = list Mainly answers his own questions. Adds a couple more closed questions A very technical posting

Note: Section numbers refer to units of analysis

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