

**LECTURERS' CHANGING EPISTEMOLOGIES AND PEDAGOGIES
DURING ENGAGEMENT WITH INFORMATION AND
COMMUNICATION TECHNOLOGY IN AN EDUCATION FACULTY**

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CHAPTER 1

ORIENTATION TO THE INQUIRY

1.1 BACKGROUND TO THE RESEARCH TOPIC

A significant event of the last two decades has been the appearance and subsequent explosive growth of the World Wide Web and related technologies that have had a notable effect on higher education and learning in particular (Crossman, 1997:19; Hall & White, 1997:22; Alessi & Trollip, 2001:5; Oliver 2002). Information and communication technology (ICT) or 'elearning' as it is known in some countries, has emerged both locally and worldwide as a prominent phenomenon in education (Oliver & Herrington, 2001) and the ensuing scramble by educators to adopt the new technologies (compare Rogers, 1995) can be seen by looking at the number of courses that have recently evolved under the banner of e-learning, web-based education or online education. The rush to implement ICT is particularly evident in Higher Education Institutions (HEI's) where technology has come to be seen as a potentially valuable tool for educational reform in higher education (Poole, 1997:2; Surrey & Land, 2000:145; Bates, 2000:7; Rosenberg, 2001:10).

Educational reform at Higher Education Institutions worldwide over the past two decades is often ascribed to trends such as increased competition, decreased enrolments, greater numbers of non-traditional students, changing societal expectations and decreased government funding (Simonson & Thompson, 1997:4; Surrey & Land, 2000:145). The dwindling student base and loss of university students to corporate training programmes in South Africa is in line with these trends and is seen as a major area of concern (McKenna, 1999:[online]). The use of ICT in higher education, which is also progressively taking root in emerging nations such as South Africa, adds another perspective to the issue of educational reform (Hilliard & Kemp, 2000:22). Van Buren-Schele and Odendaal (2001:[online]) put the local situation into perspective by affirming that the

introduction of ICT at institutions in developing countries like South Africa can be far more challenging than it is for their counterparts in developed countries. Factors that impact on the implementation of ICT normally include financial, logistic, and technological aspects, but in many areas in South Africa, requirements on a basic level such as access to electricity, computers and the Internet place unique demands on some educational institutions. Local institutions are therefore hard-pressed to improve teaching practice in order, firstly, to live up to consumer expectations, then to show continual improvement and innovations in the changing field of education (Cronjé & Murdoch, 2001:online).

Education systems have been seen to be undergoing profound change since the nineteen nineties (Simonson & Thompson, 1997:4; Bates, 2000), and I maintain that it is now essential to reassess the ideas and assumptions that have forged recent visions of professional development, or what I refer to as professionalisation of practice. During this period of profound change I maintain that e-learning research often focuses on the technology more than on the shifting epistemologies and pedagogies of lecturers. Moreover, it is often not coordinated within a suitable design logic and is frequently of poor quality (Reeves, 2000). Surrey and Land (2000:152) point out the potential of *technology* to change the nature of teaching and learning but I would like to rather highlight the *role of the lecturer* using ICT in this process. Lecturers engaging with ICT at Higher Education Institutions are confronted on a daily basis with emerging technologies and are indirectly 'invited' to change the way they approach the development and teaching of their courses. Whether or not they accept this invitation is, of course, completely up to the individual lecturer and is dependant on their epistemological and pedagogical stance (which I also believe must change through regular engagement with ICT). Bennett, Priest and Macpherson (1999:[online]) concur that it is not the technology that is important, but rather how it is used by the lecturer to create new experiences for the learner. Phillips and Soltis (1998:3) point out that ultimately it is the individual (lecturer in this case) who will have to make the best sense of how they can promote learning through the use of ICT. It is perhaps necessary to state here that the main purpose of teaching is ultimately to assist people to learn (compare Gravett, 2001:17) and I maintain, therefore, that

in order to teach effectively with ICT (Van der Westhuizen & Lautenbach, 2002), lecturers must take note of the demands that the new technologies bring (Fetherston, 2001:[online]). In support of this, advocates of learner-centered, constructivist methods in tertiary education have drawn attention to the advantages of the use of technology and endorse the implementation of ICT as an opportunity to bring about the necessary change in teaching methods used by lecturers and to focus in particular on the best way to facilitate learning (Jonassen, 1996:3; Davis, 1997:267; Simonson & Thompson, 1997:6; Rodenburg, 1998:[online]).

At present, the management of the HEI that forms the focus of this inquiry also views the implementation of ICT as an opportunity to refine teaching methods of lecturers implementing ICT in their courses. The HEI supports what they call a multi-modal approach to teaching and, in many cases, being able to use the newly available technologies as a lecturer has become a necessity rather than a matter of choice. Lecturers at the HEI in question are relatively new to ICT and have used computers and WebCT, a course management system, in the development and presentation of online courses in various ways since its inception in 1998. These courses range from *optional online components with a purely administrative function only*, *hybrid courses* incorporating aspects of online and face-to-face teaching, to courses that are presented *exclusively online*. In regard to educational change and the 'new demands' placed on lecturers, it has been my observation that these Faculty members have not merely adopted new ideas, but have more often been swept along by the forces of change without the relevant change in thinking about learning and teaching that the implementation of ICT demands. In other words, lecturers either *voluntarily* adapted to the introduction of ICT or were *asked* to adopt a more learner-centered teaching approach by HEI management. As a lecturer who has been involved with the design, development and implementation of a number of courses involving the use of ICT over the past four years at the university, I have been in a position to observe this process and learn from the lecturers involved, not all of whom have reported the same level of success with the new technologies. This supports Fullan and Stiegelbauers' (1991:345) view that the capacities to bring about change and to bring about

improvement are two different matters. 'Improvement,' which in this inquiry may be seen in the lecturers' emerging theories of knowledge and teaching (or not), also depends on the higher education community reflecting on the appropriate and inappropriate use of technology in fulfilling its mission (Cárdenas, 2000:189; Bates, 2000; Rosenberg, 2001).

At this point I will now begin with the 'story' that led to the conceptualisation of this inquiry. The presentation of this section as a 'personal story' is in line with the use of narrative as utilised later in this thesis and offers the reader the opportunity to look beyond the story and to see the concerns, tensions and other issues that underlie and guide this inquiry. Despite the imperative for lecturers in the 21st century to acquire appropriate ICT skills, adoption of the new technologies at the HEI was characterised by three groups of lecturers who I initially placed into the following categories: *non-uptake*, *adopt-and-abandon*, or *adopt-and-sustain*. With such a varying reaction to the exposure to ICT amongst lecturers, my initial line of thought was to provide help and support to individual lecturers during initial encounters with ICT in their design and teaching of courses. During this time I was a participatory observer of the initial encounters of a number of staff members at the HEI with ICT. Being a colleague of the participants at the institution I was "immersed in their day-to-day lives" (Creswell, 1998:58). The participants in the early stages of the inquiry were members of the Faculty of Education at the Higher Education Institution. My involvement with the participants during this period ranged from technical assistance to educational course design using WebCT as a course management tool. Zuber-Skerritt (1992b:199), points out that there is evidence that curriculum development is an effective way of developing the professional competencies, or what I prefer to call *professionalisation of practice*, of academic staff in higher education, hence my initial preoccupation with educational course design for newcomers to e-learning. By the end of 2002, a number of these lecturers had experienced the potential of ICT in their courses (some under my direct supervision) and had actively reflected on their engagement with the new technologies. These colleagues had become research participants and subsequently agreed to be interviewed and to make their course

documents available for the research. The focus of the inquiry was, however, not yet clearly defined and only emerged later after a long period of time.

Through reflection on my own practice as a practitioner promoting the use of ICT in education over the past years I continued to follow an intuition to stick to what McNiff and Whitehead (2002:5) call a 'felt need that something is worth investigating', even though I was not sure what it was, knowing only that the answer would emerge over time if I was true to that inquiry. An early focus of the inquiry developed into *how a program for higher education could be developed and implemented in order to support the professional development of the e-learning facilitator at a Higher Education Institution*. Only later, after much deliberation and reflection on this topic, did I come to the conclusion that it was not up to me to solve the problems of the entire Faculty and to take responsibility for every lecturer's attempts at teaching with technology. Instead, based on an initial review of the available literature and an in-depth analysis of concepts such as "communities of learning" (Brown, 1994), and also "communities of practice" (Lave & Wenger, 1991), I identified the need to rather afford colleagues the opportunity to contribute to the *development of a self-reflecting community of online practitioners within the Higher Education Institution*.

This study, therefore, subsequently developed into an inquiry on how an online community space could be utilised in order to facilitate the professionalisation of practice of the lecturer engaging with ICT at a HEI. The idea of a *community of practice* was originally conceptualized by Jean Lave and Etienne Wenger in the early nineties (as cited by Brown, 1998:[online]). This concept, which has been used over a wide spectrum of professional and other groups in the recent past, aims to facilitate knowledge transfer within a dynamic community. It is argued that the Internet offers a new perspective to be explored and could be a powerful resource for constructing and negotiating social space, hence the initial thought to initiate an ICT community, not only within the Faculty, but online. Brown (1998:[online]) adds that this kind of self-created and self-organising group has not often been seen within the professional environment. It was my early contention that a shift in thinking and reflection on practice, supported by a structured IT platform, would lead to the development and refinement of knowledge within an

online community. Brook and Oliver (2003) suggest that the instructors' role is pivotal in the development of an online learning community and with this in mind, I set out to initiate such a community. Having co-presented a workshop on ICT in education and the use of WebCT for course delivery, all members of the Faculty of Education were formally invited per e-mail to join the online community (See Appendix A). Selected members of staff from other faculties and departments were also invited to take part based on what I thought they could add to the emergent online community of lecturers using ICT in their teaching. These 'other' staff members included experts in varying fields, including information technology, research, and staff development, but all with a general interest in ICT in education. Fifty four staff members were invited to become active members of an online community of educators that was set up within the WebCT environment at the HEI. Access to this community, called "Teaching Online" was enabled for both existing and new users of WebCT. Three external moderators from two Australian universities were also invited to take part in the online discussions to add credibility to the proceedings.

The original idea with the online community was to begin with a simple design and to collaboratively improve on it. The social concept of *community* (Vygotsky 1978) was meant to manifest itself online and become part of the process where lecturers could engage in the social construction of their own knowledge about using the tools of ICT in education (Palloff & Pratt, 1999). No particular attention was paid to pedagogical concepts related to sociocultural theory in the conceptualisation of this online community, including "communities of learning" (Brown, 1994), and also "communities of practice" (Lave & Wenger, 1991) which may explain the downfall of the project. The community within the Faculty relied initially on a lot of face-to-face interaction and slowly started to evolve online. Brook and Oliver (2003) express the need for further research into the development of learning communities online but in this case *the online component of the community of practice did not develop sufficiently to warrant the research focus on it*. However, the overwhelming interest and motivation of a number of colleagues prompted me to continue my engagement with them as practitioner researcher. It was only then, through closer contact with selected individuals, that I

began to focus on *lecturers' changing theories of knowledge and teaching* (the main focus of this inquiry). Most of the interaction since then has been face-to-face complemented with e-mail communication. Out of this communication evolved the now adjusted inquiry for which the design that follows in Chapter 2 was constructed.

1.2 PROBLEMATISING THE TOPIC

The concern of this thesis is the uptake and use of ICT by lecturers in an education Faculty throughout the course of their day-to-day activities, teaching, and research projects at a Higher Education Institution. Although ICT forms only a part of the changing face of education in South Africa, I will identify the changing epistemologies and pedagogy of the lecturers as a central issue in this process of transformation. According to Fullan and Stiegelbauer (1991:315), the successful implementation of learner-centered teaching depends to a large extent on development of the teacher (lecturers in this inquiry), which is not a top-down process, but one in which the lecturer is very active, hence the focus on the active participation of the selected lecturers in this study.

The incorporation of ICT within the Faculty should arguably be a main priority for higher education practitioners, yet despite the cognisance of this necessity, uptake has been slow. This limited engagement with the tools of ICT was evident throughout the early stages of the study culminating in the demise of the online community of practice (COP). I now argue that the personal learning experiences and, to a degree, the teaching experiences of lecturers are directive indicators of their ICT uptake. Moreover, I argue that these personal learning opportunities only become learning 'events' for lecturers (and similarly also for the students) when they begin to fully engage with other lecturers, the larger community of lecturers using ICT worldwide, the policies and strategies that guide them, and the divisions of labour that influence them as they engage with the tools of ICT in order to ultimately change their inherent theories of knowledge and teaching at the HEI (This forms the focus of Chapter 3 with special reference to Activity Theory and its

use as theoretical lens and analytical tool in this inquiry). I suggest, furthermore, that these lecturers can only make meaning of their initial engagement with ICT and the subsequent changes in their ways of teaching, and thinking about teaching in general, when they see the broader picture of how engagement with ICT is not only on a physical level, but also strongly related to their geographical, historical and cultural context (hence the link to sociocultural theory in Chapter 3). In this thesis I see the lecturers' experiences within the activity system that is described in Chapter 3 as the building blocks of their epistemological assumptions. I propose, further, that elements of lecturers' *resistance to or embracing of* ICT in education will be found in these experiences and that it is in their 'narrative situatedness' that I believe reasoning about their engagement with ICT will be found. In telling their stories of what they have experienced they will expose tensions, within what I will describe in this thesis as an activity system (Leont'ev, 1974; Engeström, 1987, 1993, 1999; Kuutti, 1996; Barab, Barnett, Yamagata-Lynch, Squire & Keating, 2002:78), that are critical to understanding what motivates specific actions within the system and, more generally, in understanding the dynamic nature (evolution) of the system in general (Barab *et al.*, 2002).

The uptake of ICT and the engagement with its 'tools' is seen by management and many lecturers at the HEI as an essential component of their professionalisation of practice. Despite this imperative "adoption" of ICT within the Faculty of Education, as previously mentioned in this Chapter, is characterised by the following three groups of lecturers:

- Non-uptake
- Adopt-and-abandon
- Adopt-and-sustain

In this inquiry I initially identified these groups and used the above terms but I have recently come to question the nature of the terms "adoption" and "uptake" and would rather, from this instant, refer to "engagement" as proposed by Lee Shulman (2002) in his taxonomy of learning. Shulman's taxonomy, as seen in Figure 1.1 below, echoes the work of his predecessors, particularly Benjamin

Bloom. It posits that learning always involves engagement at some point. In the context of this inquiry, lecturers enter the learning process at any point and somewhere along the way they will engage with the tools of ICT.

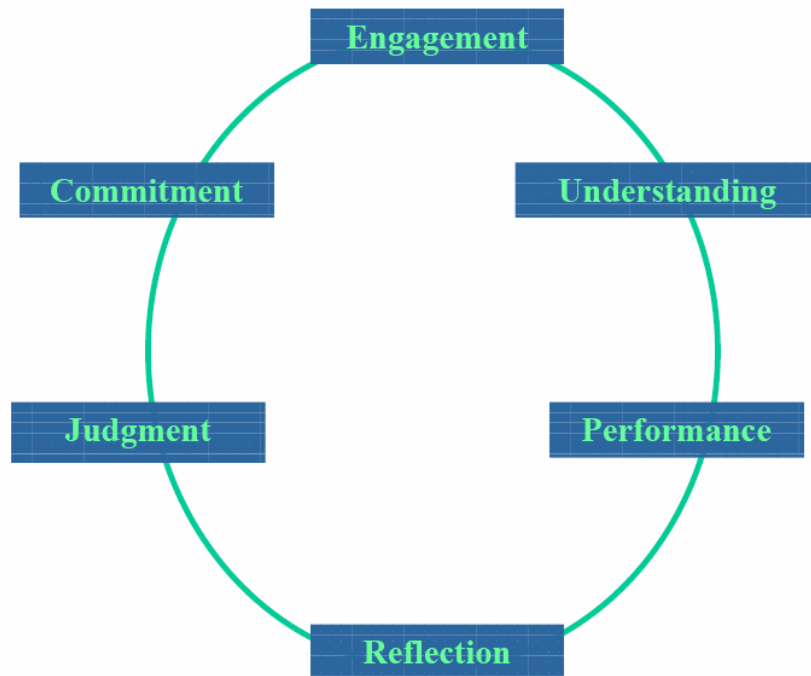


Figure 1.1: Lee Schulman's taxonomy of learning (Adapted from Shulman, 2002)

In an address to the 2002 American Association for Higher Education (AAHE) meeting in Chicago titled "A Taxonomic Trek: From Student Learning to Faculty Scholarship" Shulman fundamentally did two things: he firstly laid out this new taxonomy of learning, and then laid out cautions about the use of taxonomies in general; the main caution being the need to take cognisance of the linear, rational world that taxonomic lists imply. In order to address this I have presented the taxonomy in Figure 1.1 as a cyclic entity in an attempt to add dimension, perspective, or even depth.

Rhem (2002:[online]) explains that Shulman's interest in presenting a new taxonomy lay in offering something that more clearly reflected recent advances in understanding - "the world where people work" - and especially the place of

"engagement." In his speech Shulman focuses on the phrase "pedagogies of engagement" and asks "what does it mean to *engage*?" In the context of this inquiry I see these pedagogies as those that not only initially grab lecturers' interest in the use of ICT in teaching and learning, but those that also *maintain this interest*. In other words I see these as pedagogies that lead to what Rhem (2002: [online]) calls "deep learning." Engagement, therefore, cannot properly be understood as a means to an end; it is an end in itself. Lecturers at the HEI, for example, do not try out these new technologies in order to merely increase their knowledge in the field of educational ICT but because they are engaged with what happens there.

In this study I, therefore, wish to explore possible reasons for varying engagement, assuming that these reasons are probably located within the dimensions of the unit of analysis of the study, namely, *lecturers' changing theories of knowledge and teaching in first encounters with ICT*. In problematising the notion of lecturers engagement with the tools of ICT in education, I initially located the problem in three spheres, namely 1) lecturers' theories of knowledge and teaching, 2) the individual lecturer, and 3) the setting where ICT must be implemented and sustained – the HEI and its related communities (without knowing it at the time, I had stumbled across 3 major components that eventually form part of the activity system that I describe in more detail in Chapter 3). In all three of these spheres mentioned above, I argue, there may be constraining factors, the most important perhaps being the 'unyielding epistemologies' of lecturers. Thus, I argue, although lecturers delve into the 'shallow waters' of educational ICT they do not do so in sufficient depth and resign themselves to the perpetuation of cognitivist, behaviourist and objectivist forms of knowledge without discovering more about the medium that could possibly liberate their restricted epistemologies. These restricted epistemologies limit their pedagogic vision and may therefore influence their future endeavours in teaching with technology. I also propose that there will be those lecturers who experience some real epistemological change as a result of their initial engagement with ICT and that these changing epistemologies will be evident in the narratives that emerge from this study.

It has been my further observation that many lecturers still see ICT as a way to access information and not as a process of distributed engagement and learning. This, subsequently, started to change as they engaged with the tools of ICT. By experiencing distributed cognition (Salomon, 1999) and developing social constructivist ideas of teaching it is my belief that lecturers change their view of knowledge and learning. In doing so they begin to exemplify what Nardi and O'Day (1999) refer to as "keystone species" in the establishment of learning and information ecologies in their workplace. Furthermore, I propose that those lecturers who experience some real epistemological change during the process of engaging with ICT are also the ones that will develop, if only emergently, some form of learning and information ecology in their work environment. With no formal 'curriculum' for lecturers to follow in this process each one enters the field with a life history (and thus a 'lived experience') that will ultimately play a role in how they adapt to these technological advances in education.

The unit of analysis in this study was identified soon after the participants began to question their 'ways of doing things' and how their teaching was changing as a direct result of the implementation of 'new' strategies for using ICT in their teaching and research. Based on informal discussions I was able to identify initial shifts in their epistemologies and ideas about teaching in general. The unit of analysis in this inquiry can, therefore, be stated as: *lecturers' changing theories of knowledge and teaching in first encounters with ICT.*

The main research question is then: ***how does initial engagement with ICT affect change in epistemology and pedagogy in the practice of higher education practitioners, and how can narrative analysis reflect this?***

1.3 THE PURPOSE OF THE INQUIRY

The purpose of this study is to explore how initial engagement with ICT in education affects possible change in the epistemology and pedagogy in the practice of higher education practitioners. The use of narrative methods is expected to play a major role in this inquiry. The anticipated 'change' can be

explained by investigating some components of an emerging ICT culture in the educational institution. This could include personal and professional aspects of lecturers, the environment and its support and development structures, and personal tools and capabilities. More than these aspects, however, the way engagement happens can reveal fossilised ways of 'doing' higher education and also an inability to work in a distributed cognition environment (Salomon, 1999) in which personal knowledge power becomes shared power. The web is less tolerant of individualistic reigning of knowledge 'owners' and encourages sharing and distribution. Examples of these can be found in notions that are beginning to fill the ICT lexicons; distributed cognition (Salomon, 1999), "situated cognition" (Brown, Collins & Duguid, 1989; Lave & Wenger, 1991; Chaiklin & Lave, 1993), "information ecologies" (Nardi, 1996), "communities of learning" (Brown, 1994), and "shared learning" (Cuthell, 2002). This inquiries' purpose is to explore how initial engagement with ICT in education reflects possible change in the epistemology and pedagogy in the practice of higher education practitioners *within this landscape*. I argue that such a study will indicate that there are "more things in heaven and on earth than are dreamt of in our philosophies" (Hamlet). The landscape mentioned above encompasses a number of other components that I have not yet mentioned as they only became clear to me much later in the inquiry. It is these components and the tensions or contradictions between them that eventually guided me to Activity Theory and the concept of an activity system in which the relationships between the components could be explored (see Chapter 3). In terms of an emergent ICT culture in education my argument is that there are both epistemological and institutional hegemonies that need to be exposed. This study will endeavour to elucidate these by means of the critical ethnographic stance following the methodologies of the hybrid research design as proposed in Chapter 2.

The following can be seen as thesis statements or 'eventual knowledge claims' for this study.

- If there is uptake of ICT within the Faculty then there will also possibly be related changes in epistemology and pedagogy of participants.

- The combination narrative inquiry / ethnomethodology / critical ethnography hybrid of design types is a suitable design for establishing how engagement with the tools of ICT in education reflects possible change in the epistemology and pedagogy of the participants.
- By using Activity Theory and the concept of the activity system as both a theoretical lens and analytical tool in the analysis of personal narratives, changing epistemologies and pedagogies of lecturers at the HEI will be exposed.

It is in this 'narrative situatedness' that I believe participants' reasoning about their engagement with ICT will be found. In telling their personal stories and sharing personal teaching experiences, lecturers will expose a number of contradictions or tensions within the activity system (Leont'ev, 1974; Engeström, 1987, 1993, 1999). It is these tensions and the interplay between them that Wenger (1998) argues is the driving force behind the activity system. As tensions enter the system they become the driving forces behind the disturbances and innovations (Rogers, 1995) that ultimately cause the system to evolve and develop (Barab *et al.*, 2002:80).

1.4 AIM AND OBJECTIVES

This research will be conducted from the personal perspective of an educator, self-schooled 'educational designer', practitioner and researcher in the field of educational ICT. This thesis describes and explains briefly how I initially attempted to establish an online community of e-learning practitioners in order to improve the practice of online course facilitation at a HEI and how the focus of the study changed to the present focus on how engagement with the tools of ICT influences lecturers' theories of knowledge and teaching in general. This inquiry can be contextualised as a story of my role as lecturer and researcher at a Higher Education Institution, acknowledging that I see my work through a critical lens as I present an authentic description and account of my own educational practice, and as I research the shifting epistemologies and pedagogy of others.

In order to achieve the aim of determining how initial engagement with ICT reflects possible change in the epistemology and pedagogy of higher education practitioners it is necessary to fulfill the following objectives:

- To argue a comprehensive theoretical framework. The assumptions that underlie the notion of ‘emerging pedagogies and epistemologies of lecturers at the HEI’ need to be problematised, especially from the viewpoint of the divergence of ideas around emergent pedagogies of ICT in education. The gist of this framework is Activity Theory and tool mediation theory as first propounded in socio-cultural and related theories and will therefore include:
 - A brief exploration of socio-cultural theory and Activity Theory in order to establish theoretical markers for a clearer understanding of emerging (or stagnant) epistemologies and pedagogies
 - Tool use which can be seen as an integral factor in both socio-cultural and Activity Theory (Cole, 1999:90) which in turn can be seen as a theoretical framework for analysing human practices or ‘what people do’ in context by means of tools. This section will include a description of social practices and tool use during engagement with ICT which could lead to new spatial, cultural and social relationships at the HEI, ultimately resulting in changes in the way lecturers deliberate about and approach their teaching (and thus change their epistemologies and pedagogies).
 - An exploration of the “cultural-historical tradition” and the roots of what is now known as Activity Theory. This includes a review on the belief that human reasoning is *culturally mediated* - that it is shaped by historical and cultural changes. This section will include an overview of the origins of Activity Theory in the cultural-historical school of Russian psychology and the association with names such as Vygotsky, Leont’ev, and Luria.
 - A shift in focus away from the psychological, taking into account the social context as well, viewing human action as a unit of analysis

within a dynamic social context. This section will also expose how Activity Theory has recently gained popularity as an approach to research that takes into account the cultural and organisational context while focusing on daily routine work.

- A description of how activity can be used as the basic unit for studying human practices such as engagement with ICT at the HEI. The complexity of activities will be discussed in more detail.
- How the Vygotskian concept of tool mediation and Leont'ev's notion of activity were combined and included in Vygotsky's (1978) *basic mediational triangle model* highlighting the notion that the relationship between the subject and object is not always direct and may instead be mediated through the use of a tool. This section will also include how Engeström (1987) conceptualised the expanded version of Vygotsky's original basic mediational triangle model by incorporating Leont'ev's notions of the social and mediational aspects of human activity in order to reflect the collaborative and collective nature of human activity resulting in what is now known as the *expanded triangle model* or the *activity triangle system*
- An introduction to how activity systems are characterised by their internal contradictions. These contradictions will also be described as tensions that arise between the various components of the activity system and act as the driving force behind the evolution of the activity system. These tensions are critical to understanding what motivates specific actions within the activity system and, more generally, in understanding the dynamic nature (evolution) of the system (Barab et al., 2002).
- A description of how Vygotsky's concept of the Zone of Proximal Development (ZPD) can be applied in this enquiry to explain how lecturers at the HEI 'learn' to engage with the tools of ICT. It will be noted that various individuals may have different ZPD's for different subject areas and when projected to the lecturers at the HEI engaging with ICT, this may help to explain why certain lecturers

adapt to the proposed multi-modal teaching strategy easier than others.

- A description of how Engeström's expansive cycle of learning may be seen as the equivalent of Vygotsky's (1978) Zone of Proximal Development. This will include a short summary on how every individual lecturer's ZPD will differ, and how the occurrence of internalisation and externalisation within their individual expansive cycles of learning will also vary, each one adding something new to the collective activity system and continuously driving the activity system at the HEI.
- To implement a blending of methodologies in a hybrid design that incorporates the characteristics of the variety of methodologies used. Methods spawned by the interpretive turn in social science research, underpinned by various philosophies and multiple methods of data collection and analysis are combined in order to identify changes in the epistemology and pedagogy of selected lecturers (see Chapter 2).
- To carry out the empirical component of the research in order to identify key issues in the practice of lecturers through simple content analysis and a narrative analysis of nine interview transcripts using Activity Theory as a theoretical framework and analytical tool. The organisational and social contexts will be explored through the analysis as a major factor that may influence whether or not lecturers change fundamental ideas about teaching and knowledge. Narrative is expected to play a major role in this analysis.

1.5 THE CONTRIBUTION OF THIS THESIS

The significance of a thesis that had its early roots in action research, as suggested by McNiff (McNiff & Whitehead, 2002:141) can be explained in terms of potentials for personal practice, potentials for workplace practice, and potentials for educational theory. The originality of the contribution of this thesis to the academic and professional knowledge-base of education is that the Higher

Education ICT landscape will benefit from an additional contextualised rich description that can add to the understanding of the complexities of engagement with ICT in education. My own educational theory too is an emergent and constantly changing theory that is not only based on my own reflections on practice, but also on the knowledge generated by the participants. In this thesis I demonstrate the emergent nature of changing epistemologies and pedagogy of lecturers that is based entirely upon the knowledge gleaned from the reflexive activities of the lecturers themselves. Another valuable contribution is the methodological design hybrid used in this study that may be implemented and refined in future studies of this nature. The use of Activity Theory as both a theoretical lens and analytical tool may provide an additional perspective to help understand transformations going on as a result of technological advances within human activity systems at Higher Education Institutions.

A further contribution of this study is the possible link to a new research project currently being undertaken by a group of researchers at the HEI (myself included) on how educators, who are graduates of, or are involved in Computer-Based Education (CBE) degree programmes, establish learning and information ecologies in schools and their communities. This funded research project is expected to shed light on the changing epistemologies and pedagogy of in-service teachers and will help to answer the question: How do educators, who are graduates of, or are involved in Honours and Master's programmes in Computer-Based Education (CBE), transfer the knowledge and skills learned in these programmes towards establishing and maintaining learning and information ecologies in schools and their communities during and in the first two years after having completed their degree studies? I see the link between these two studies as the *epistemological shifts* that take place in the adult learners in the programmes as they learn about the technology and 'about' epistemological shifts themselves. At this stage I surmise that the type of shift that may take place in these teachers will be similar to that of the lecturers in this study.

1.6 RESEARCH METHODOLOGICAL PERSPECTIVE

Designing a study design requires an understanding of the philosophical foundations underlying the type of research, taking stock of whether there is a good match between the type of research and one's personality, attributes, and skills, and becoming informed as to the design choices available to one within a specific paradigm (Merriam, 1998:1). Any inquiry process may be affected by the researcher's personal history and the general sociological frameworks and philosophical traditions in which he or she lives (LeCompte & Preissle, 1993:121). Implicitly or explicitly, this affects the assumptions researchers make about the nature of reality, knowledge and values, as well as the research questions they formulate.

Participants in this study will engage with the researcher within the context of their collective histories in an attempt to make meaning of their engagement with ICT through alternative interpretations and transformations (compare Soltis, in the foreword to Doll, 1993:xi). In essence, therefore, I offer a post-structuralist, process-orientated vision of engagement with ICT but grounded firmly in the interpretive and critical traditions of social inquiry. In the hybrid of design types used in this study, which originated from a period of action research, there are now components of critical ethnography, ethnomethodology, and narrative inquiry with the foundational type being narrative inquiry. The original action research design was conceptualized because of its particular usefulness when seeking change, innovation, growth and transformation within organisations. From this action research pilot I came to know that as a qualitative researcher in this inquiry I am more intrigued with the complexity of social interactions and the meanings that participants themselves attribute to these interactions. This explains the interpretive and critical approach to the application of multiple methods of data collection and analysis that developed in this inquiry. The research design is therefore pragmatic, and both interpretive and critical, and grounded in the lived experience of the participants. Combining methodologies, as detailed in Chapter 2, is also a practical way to confront certain issues while at the same time

compelling me to first understand how the individual methodologies came to be and question their usefulness in the overall context of the inquiry.

The choice of ethnographic design in this inquiry is based on various theoretical perspectives. These perspectives find their origins in the fields of sociology and anthropology, including structural functionalism, symbolic interactionism, social exchange theory and conflict theory (LeCompte & Preissle, 1993:141), or could even include critical, feminist, poststructural or even postmodern approaches to research. My post-structuralist, process-orientated vision of engagement with ICT grounded firmly in the interpretive and critical traditions of social inquiry as mentioned earlier in this section will, therefore, influence the collection and depiction of data advocated by my theoretical framework and will differ according to how I select and use the specific theoretical framework in an accurate portrayal of uncontrived group action over a period of time, faithfully representing participant views and meanings. By combining ethnographic methods and perspectives from critical theory I will follow in the footsteps of what LeCompte and Preissle (1993:142) identify as “a whole generation of critical ethnographers”. In attempting to interpret the educational ICT culture at the HEI accurately I will eliminate the issue of portrayal (LeCompte & Preissle, 1993:31) and the problems involved with seeing only portions of a cultural reality by using narrative inquiry.

The ‘reality’ of a culture is seen by some as the product of multiple perceptions, including that of the researcher, produced by the interaction between the researcher and the participants involved in the study. It is my belief that the use of narrative inquiry in this study will eliminate the problem of determining “how much of whose reality is portrayed, how it is portrayed, and how accurately.” Narrative inquiry and the process of re-telling the stories of the experiences that make up people’s lives during the collaboration between researcher and participants, over time, is used in this study for understanding the “lived experience” of the lecturers engaging with ICT (Clandinin & Connelly, 2000:20).

1.6.1 Philosophical and Theoretical Assumptions of the design

The term “philosophy of science” is normally used interchangeably with terms such as “metatheory”, “metascience” and “epistemology of science”. All of these terms refer to a critical reflection on the nature of scientific inquiry (Babbie & Mouton, 2001:20). Through the ages, scholars have reflected on the nature of social science. Metatheoretical reflections on the nature of social inquiry address issues such as the aims of social research, the nature of truth, rationality and objectivity in social inquiry, and the politics and ethics of social research practice (Babbie & Mouton, 2001:20).

Researchers usually assume that theory and method are inextricably linked (LeCompte & Preissle, 1993:116). Theoretical frameworks, intentions or purposes with which researchers approach their investigations determine not only what questions are important, but also the methods which should be used to collect the data which would answer them. Mouton (1996:188) warns that theoretical definitions of highly abstract concepts may vary across larger frameworks and paradigms. The same word, for example, may have different connotations depending on the theoretical framework. This leads people to look at the social world differently and interpret seemingly similar events differently. Theoretical assumptions reflect the researcher’s viewpoint on what is seen as valid knowledge within an existing conceptual framework. Merriam (1998:2) further stresses the importance of identifying the theoretical framework that forms what she calls the ‘scaffolding’ or ‘underlying structure’ of the study. The philosophical and theoretical frameworks that impact on this inquiry will be illustrated in the following paragraphs.

Babbie and Mouton (2001:20) identify positivism, phenomenology (generally regarded as interpretive research), and critical theory as three influential metatheoretical traditions or metatheories of social science. This inquiry is partially guided by the principles of both interpretive and critical theory but not restricted by them. *Narrative analysis* as used in this study has sprung from philosophy and interdisciplinary work whereas *critical ethnography* and *action*

research have emerged from critical traditions and postmodern perspectives (Marshall & Rossman, 1999:1). Activity Theory as used in this inquiry has its roots in the cultural-historical school of Russian psychology and is most often associated with names such as Vygotsky, Leont'ev, and Luria as well documented by a number of authors (Nardi, 1996; Kaptelinin & Kuutti, 1997:[Online]; Cole, Engeström & Vasquez, 1997; Bannon, 1997:[Online]; Minick, 1997:117; Cole, 1999:89; Engeström, 1999:19). My research, therefore, may be informed by many different theories. For personal and organizational change to be truly transformational, it is also assumed that all participants in this study will adopt a critical and self-critical attitude. Only then will this thesis provide an honest account of how and where the participants view themselves to be within the educational ICT landscape. The methodological implications of this approach will be discussed in paragraph 1.4.2 but it is first necessary to elaborate on the philosophical assumptions in this thesis. These include beliefs about the nature of the world and human beings, and also about the nature of scientific inquiry (Mouton, 1996:16). Listed below are these assumptions, namely that:

- education is considered to be a social institution designed for both social and cultural reproduction and transformation (Merriam, 1998:4; Babbie & Mouton, 2001:38) and critical perspectives in education have continuing relevance in education offering an approach by which educational practitioners and researchers may engage as active participants in the process of educational change (Kemmis, 1996:199). It is assumed in this thesis that the linear, sequential, easily quantifiable system that has dominated education in the past will give way to a complex, continually evolving community of educational practitioners engaging with ICT (the activity system).
- lecturers implementing ICT in their practice create their own identities and allow others to create theirs while finding ways to 'live' together in spite of potential differences.
- lecturers at the HEI will honestly critique their practice, building on strengths and improving weaknesses through action (compare McNiff & Whitehead, 2002:17). These lecturers view knowledge as something they do, a living process that is never static or complete due to an ever changing future.

Learning in this view is rooted in experience. It involves reflecting on the experience of practice, and then deciding on future action as a result of the reflection (McNiff & Whitehead, 2002:18). Solutions developed through this process may, however, require changes to be made at the organization and these solutions may pose challenges to senior management (compare Zuber-Skerritt, 2000:17).

- this thesis will add to the improvement of science (compare Mouton, 1996:11) and can be integrated into the wider framework of theory and research as reflected in the review of the literature in subsequent Chapters.

The above assumptions aim to justify the approach to this research inquiry and act as criteria against which the findings can be evaluated, rather than against external, positivist criteria.

1.6.2 Methodological Assumptions of the design

Babbie and Mouton (2001:38) state that it is not exactly clear what kind of methodology would be most compatible with a critical social science. Critical ethnography is grounded in critical theory and has developed in the educational field to be a way of applying a subversive worldview to the conventional logic of cultural inquiry (Thomas, 1993:vii; Marshall & Rossman, 1999:6). Through describing and analysing social 'realities', critical ethnographers expose to scrutiny otherwise hidden agendas and assumptions that need to be questioned (Thomas, 1993:3). By interpreting the ICT culture within the Faculty using narrative methods, I as a critical ethnographer can attempt to provide insights about possible changes in epistemology and pedagogy of participants during the process of engagement with ICT that are often ignored by other approaches. Any methodological approach is not merely a collection of research methods and techniques, but also includes some assumptions and values regarding its use under specific circumstances (Mouton, 1996:37; McNiff & Whitehead, 2002:18). Methodological assumptions for this study are that:

- there is a distinct preference for the qualitative approach with an awareness of the limitations of various qualitative methods.
- researcher and participants will become involved in the research project as equal partners (Babbie & Mouton, 2001:39) and the inquiry will be executed in such a way as to maximize the trustworthiness of the findings (compare Mouton, 1996:175).
- in order to understand transformation at the individual level it is necessary to emphasise both the internalisation of culturally given higher psychological functions (established culture), and the formulation of desirable culture (Engeström, 1999:35). Engeström states that in order to understand such transformations within human activity systems a methodology must be implemented that enables the researcher to investigate expansive cycles. Such a methodology does not, according to Engeström, easily fit into any single discipline (like sociology or psychology for example). It is for this reason that I eventually moved away from the idea of “naïve forms of action research” (Engeström, 1999:35) where, I argue, I would be merely idealizing spontaneous ideas and efforts originating from the participants in this inquiry.
- appropriate methods of research are not reducible to any single technique (Vygotsky, 1978). Four steps in the methodology sketched by Vygotsky that are addressed in this inquiry through the use of the hybrid of methodologies described in Chapter 2 include: observation of contemporary everyday behaviour (rudimentary behaviour), reconstruction of the historical phases of the cultural evolution of the behaviour under investigation, experimental production of change from rudimentary to higher forms of behaviour, and observation of actual development in naturally occurring behaviour (Engeström, 1999:35).
- the informal explanations used to guide our daily life and the ‘hunches’ we have about why things work as they do are tacit or lay theories. They are derived from cultural background, academic training, life experiences, and individual personality traits. LeCompte and Preissle (1993:121) highlight the profound effect these may have on the research process. Ascriptive characteristics, which cannot be shed, such as age, gender, ethnicity, country of origin, economic status and social or occupational role can have an effect on

the research approach. This final assumption is that I will take note of these considerations and approach the study with the necessary methodological sensitivity, so as not to allow for distortion or bias.

This thesis addresses a complex process in a time of rapid social and educational change. In this section I have presented my paradigmatic perspective by reflecting on assumptions about the nature of being/reality (ontology), assumptions about the nature of knowledge and knowing (epistemology), and my consequent approach to problem solving and inquiry (methodology). The abbreviated research design that follows is based on, and will reflect the above assumptions.

1.7 RESEARCH DESIGN AND FRAMEWORK OF THE INQUIRY

In this section, the step-by-step planning of the research project will be presented (Bless & Higson-Smith, 1995:63) along with a brief introduction to the research design. A complete account of the research design may be found in Chapter 2.

1.7.1 Participants in the Study

The participants who were initially invited to become part of the online community of ICT practitioners included academic and non-academic staff members within an Education Faculty at a HEI in Johannesburg, South Africa. Staff members from other departments within the HEI, each with a personal interest in the project, were invited to join the group. Participants had varying experience in the field of ICT in education, ranging from the complete novice to some lecturers with at least 4 semesters (two years) experience with ICT. When the online component of the community of practice, as mentioned earlier, did not develop sufficiently to warrant the research focus on it, the interest and motivation of a number of colleagues prompted me to continue my engagement with them as practitioner researcher focusing on their changing views on knowledge and teaching during their first encounters with ICT in education. Most of our interaction since then has been face-to-face with structured and semi-structured meetings to discuss educational ICT matters complemented with e-mail communication. Out of this communication

with the selected participants evolved the now adjusted inquiry as described in this Chapter.

1.7.2 Conceptual and Theoretical Frameworks of the Inquiry

This inquiry is shaped by what is broadly known as ‘sociocultural theory’ and includes a number of related theoretical fields, all of which were generated by the renewed interest in the theory of learning and development of the Russian psychologist, Lev Vygotsky in the early 20th century. In this inquiry, lecturers engaging with ICT within the social context of the HEI, with the computer as the principal ‘tool,’ will be viewed from the perspective of Vygotsky’s early work. Vygotsky first argued that the study of consciousness should be included in psychology. As a result, he favoured the study of mind, rather than behaviour, as a means to this end. A main focus of Vygotsky’s cultural-historical research was the use of mediating tools and symbols as key factors in psychological development and as key indicators of what happens in the mind. Using this notion as a point of departure I will explore the “cultural-historical tradition” in Chapter 3 where I will expose the roots of what is now known as Activity Theory.

The changing or emerging epistemologies and pedagogies of lecturers will be described as taking place in a richly textured and very specific ICT culture at the HEI. The view of the lecturer as a unique individual is a view that integrates well with Activity Theory. In this landscape of human activity and learning, individual lecturers can be seen to act in a complex system of actions, tools, members, rules and a community (Engeström, 1999). This individual identity of the lecturer can, therefore, be seen as the combination of *activity in context*. From the perspective of Activity Theory, the lecturers engaging with the tools of ICT at the HEI can be seen as an activity system that is connected to other systems, each within which there are tools and contexts. The ICT community at the HEI is, therefore, forged by the activities of lecturers and manifested through their labour, utilising the tools of ICT. Lecturers’ theories of knowledge and teaching are, therefore, forged by the ‘multiple contexts’ of the individuals within the ICT culture and must be seen as dynamic and constantly changing.

My focus in this thesis is on a social constructivist epistemology, positing that humans learn because they interact with their socio-cultural environment and history. I argue that the socio-cultural environment and socio-cultural history of the lecturers within the Faculty of Education at the HEI must impact on their learning (compare Vygotsky, 1978) as they interact with the environment and invoke their previous experience and learning. This is the framework that will guide my understanding of their changing epistemologies, as they engage with the tools of ICT in their teaching practice and are challenged to learn by 'making new knowledge' and not just retrieve information with the help of technology. Lecturers will engage with the tools of ICT and this engagement will reflect an understanding (or not) of this basic principle of a pedagogy that is based on a social constructivist epistemology.

Another component of social constructivism that can be invoked as a means of understanding the changing epistemologies and notions of education of the lecturers is discourse theory. I argue that the discourse of educational ICT in this inquiry will reflect the way in which the knowledge mediation has been conceived and how such structures (in language and other texts) have been maintained in the ICT domain. Using this component of the inquiry I will extract from lecturers' communication the discursive qualities that will highlight their changing epistemologies and also their developing pedagogies. In other words, in looking at the individual lecturers' engagement with ICT over an extended period of time, and using a variety of research tools, I will search for discursive indicators in their communication that demonstrate the changing nature of their theory of knowledge (epistemological theory) and of education (pedagogical theory).

A review of the literature in the field of ICT in education will include a topical summary of ICT and an overview of research done on ICT in education. In this review learning mediated by electronic technologies will be highlighted as a prime example of the theory of distributed cognition (Brown, Collins & Duguid, 1989; Brown, 2000; Duguid & Brown, 2000). The theory of distributed cognition (Salomon, 1999) will be explored in further with a view of contextualising the inquiry in this theory that frames much educational ICT research. This theory

holds that a learner knows what they can access and explore (and understand) by means of the knowledge-making facilities of tools (Säljö, 1999) that are distributed. The increase in tool utilisation due to the expansion of information technology will, therefore, be used to introduce the reader to the theory of distributed cognition which is still consistently refined (Cuthell, 2002) as the technologies develop.

The role of tools in mediated action (Vygotsky, 1978) and advances in the field of tool use due to the expansion of ICT (Cole & Engeström, 1993; Lave & Wenger, 1991; Nardi, 1996) will be discussed as well. In the specific context of this study this would mean that the identity of the tool user changes as competence with ICT increases. This identity can be related to a changing epistemology and without such a change, the use of the computer as tool will remain at the level of 'operations' in terms of Activity Theory (Kaptelinin, 1996), which is comparable to the 'lowest' level of learning in the Bloom taxonomy of learning objectives (Shulman, 2002).

To complete the comprehensive *theoretical framework* including all components mentioned above it will be necessary to provide the reader with the link between tool use and Activity Theory (Cole, Engeström & Vasquez, 1997:1; Engeström, 1999:19). In Chapter 3 I will, therefore, defend my view that if the participants have experienced a successful entry into the discourse community of ICT in education that they will be able to engage with their working community as an activity system (Engeström, 1991; Cole & Engeström, 1993). Activity Theory (Leont'ev, 1978; Cole & Engeström, 1993; Kaptelinin, 1996; Kuutti, 1996; Nardi, 1996) will be described as the theoretical lens through which I view the participants' (the lecturers engaging with the tools of ICT at the HEI) and also as an analytical tool. In Chapter 3 I will argue further that engagement with ICT can be seen as the precursor of a full activity system and that lecturers who are cognitively and technically equipped will be open to exploring and understanding their changing epistemologies in this regard. I argue further that the lecturers who have experienced transformative/transformational learning as an adult learner (Gravett, 2001) will be able to transfer this experience to the workplace and the

related ICT community, because the experiential and epistemological change will equip them to do so.

1.7.3 The Research Genre: Nature of the Inquiry

Henning, Van Rensburg and Smit (2004:31) propose that the term 'genre' captures the nature of different types of qualitative research more adequately than the terms 'type' or 'format'. Terms that have been most commonly used in the literature include the 'design type' (LeCompte & Preissle, 1993:30; Merriam, 1998:11; Mouton, 1996), or the 'research genre' (Holliday, 2001:151) and now the 'genres of design' (Henning et al., 2004:31). To quote these authors:

A qualitative study is a study presented largely in language and is about the meaning constructed from the language that presents the data. In the discourse of qualitative methodologies it therefore makes sense to speak about research genres. (Henning et al., 2004:31).

The genre of design for this study as seen in Figure 1.2 below developed through an extended period of action research, as highlighted earlier in this Chapter, into what can now be seen as a triangular hybrid that includes the ethnographic, the ethnomethodological and the narrative tradition of qualitative inquiry (Flick 1998; Alvesson & Sköldbberg, 2000:38/200; Henning et al., 2004:42). As a precursor to the methodological approach as described in Chapter 2, I also include a brief introduction to *action research* and its role in the development of the genre of design for this study. This can be seen as part of my own personal narrative of how this study has gone through a number of stages over the past four years that action researchers would almost unanimously describe as 'cycles'. For example, due to unsatisfactory participation in the online component of the community of practice that was created for lecturers, new plans and procedures had to be implemented resulting more often than not in a new focus, new plans and further observation and reflection on the implementation. Action research, therefore, ultimately led to the conceptualisation of the design hybrid utilised in this study. The inclusion of a brief introduction to action research, its cyclic nature and how it

was used to shape the course of this inquiry is therefore justified and provides some background to the development of this thesis. Figure 1.2 below is a diagrammatical representation of the development of the design genre described in Chapter 2.

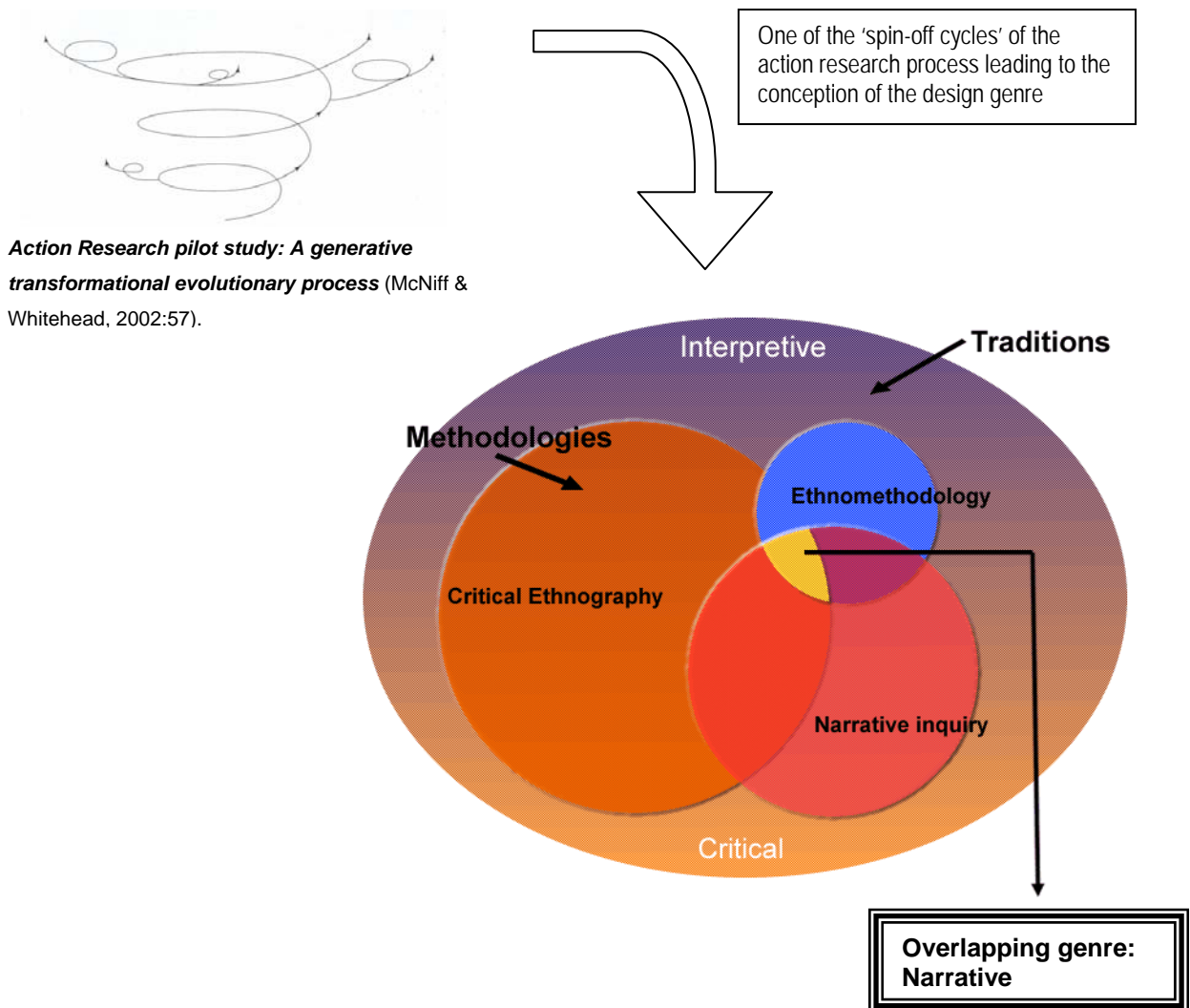


Figure 1.2: Development of the genre of design in this inquiry

The three main methodologies that emerged from what can be seen as the 'action research pilot study' are used in this now adjusted inquiry to elucidate lecturers' changing theories of knowledge and teaching in first encounters with ICT from a variety of perspectives and in a variety of modes. I argue that the underlying epistemologies of the three methodologies are complementary and will enable me to examine the unit of analysis more effectively than a study using a single

methodology, such as an ethnography. Optimal richness and variety of data and of data analysis options will be obtained by employing the 'eclectic mix' of ethnographic methods along with the 'spoken word' that will feature in the ethnomethodological methods (conversation analysis) and in the discourse analysis methods. Narrative analysis will be used in this process as a potentially useful research tool to complement the use of other methods including interviews and observation as used in this study. Ultimately the narrative strand of the inquiry, which features in all of the main methodologies (see overlapping area in Figure 1.2), will be used to present the findings, with narrative analysis of the data being the primary analysis method.

The 'system' that an *ethnography* tries to capture is the 'way of life' within the group being studied (Henning *et al.*, 2004:42). Capturing this way of life will be done by getting to know the participants and their practices during the course of their everyday lives over the extended period of this study. I have spent sufficient time in the setting where lecturers carry out their day-to-day tasks in order to capture rituals, activities, language and signs that the lecturers use to represent themselves. This inquiry has already evolved into a 'critical ethnography', by repeatedly challenging the culture of education at the HEI, by identifying the power relations within the group, and through inquiry into the educational ICT culture of the participants with emancipatory goals.

The second component of the hybrid, which is the *ethnomethodological* component, will be used to determine how the specific group of participants construct their reality with regard to engagement with ICT in their daily lives. This is a methodology that stems from phenomenology (Flick, 1998:19; Alvesson & Sköldbberg, 2002:38). It can be seen as the 'common sense' ways of seeing social patterns and how they may be used to construct the everyday life of participants. This part of the inquiry may illuminate interactions and structures that may play a role in lecturers' understanding of their changing ideas on knowledge and teaching during engagement with ICT. The everyday methods that research participants use to construct their social world during this engagement will be examined by means of both structured *ethnomethodological direct observation* (Henning *et al.*, 2004:42) and conversation analysis (Flick, 1998; Alvesson & Sköldbberg, 2000:42).

The third and main part of the hybrid is the *narrative inquiry* component, in which narrative analysis as methodology will be used to determine how the discourse was made and how it is maintained as a structural device to format and direct meaning. Language is seen as a strong determinant of meaning (Henning *et al.*, 2004:42) and will be used to search for the construction and maintenance of the directive discourses in the narrative interview texts. Fairclough (1995:130) also highlights the value of critical discourse analysis as a method to be used alongside other methods in social scientific research on social and cultural change where the institutional context and the wider societal context or “context of culture” are being explored. In this inquiry, I have adopted critical discourse analysis in the light of the emergence of the critical, social and historical turn that Fairclough (1995:140) called for. This emerging phenomenon is described further in Chapter 3 of this thesis.

Discourse markers and narrative segments from the interview transcripts will be used in this inquiry to make up the lecturers’ individual stories of their engagement with ICT. These narratives will be considered as social constructions that may shed light on the changing epistemologies and knowledge of teaching of the participants. In this study, narratives will be analysed performatively as proposed by Langellier in 1989 (as cited by Riessman, 2002:701). This is only a single point of entry with other investigators proposing the analysing of narratives textually, conversationally, culturally, or politically/historically. I will emphasise the performative approach in this study because “a story involves story-telling, which is a reciprocal event between the story-teller and the interviewer” (Riessman, 2002:701). The story-tellers’ “preferred identity” will be revealed in the stories they tell. The identity of the story-teller is situated and accomplished in social interaction and in no way should be seen as inauthentic. It is not my aim to ‘collect stories’ from participants but rather to ‘identify the narrative qualities’ in the collected data.

Further detail of the abovementioned three methodologies that comprise the design hybrid will be provided in the following Chapter along with a description of

the blend of constructivist and critical approaches to analysis of the data (Phillips & Hardy, 2002:62).

1.7.4 Methods of Data Collection

Each component of the three-tiered design genre will incorporate data gathering/collection methods including observation, interviewing, and document and artifact analysis.

In the ethnographic component of this study I am a participatory observer or even a full participatory member of the Faculty of Education at the HEI where I am able to observe the every day activities of this identifiable group. This observation in the ethnographic component of the design will comprise all the formal and informal interactions with Faculty members as they go about the task of interacting with one another, with me, and with the tools of ICT. All nine of the selected participants will also be invited at the interviews to keep record of their practice to enable them to report back at the 'stimulated recall' interviews that could be undertaken to illuminate key issues identified during initial data analysis. The interviews mentioned above will be in the form of narrative interviews with nine lecturers who were purposefully sampled according to their 'degree' of engagement with ICT. The aim of these interviews will be to capture the lived experience of the lecturers during this period of interaction with ICT in their work environment.

The ethnomethodological component of the design will include observation that will take place throughout the duration of this study as I 'live' amongst the participants in our shared ethnomethodological reality. This will include the selection and recording of sketches of naturally occurring talk that has been noted from formal and informal interaction. These texts will be assembled from email correspondence sent by participants as well as extracts from the narrative interviews.

The texts for narrative analysis will be selected from the transcripts of the narrative interviews with the selected participants. It will be explained in Chapter 2 that

narrative is now recognised as one of the most basic ways that people organise their understanding of the world. It is used by many as a means of making sense of past experiences and sharing it with others. When used for systematic interpretation of others' interpretations of events, narrative analysis adds an extra dimension to research if the narratives are accounts of epiphanic moments or significant or meaningful incidents in peoples lives. Narrative inquiry fits seamlessly into the genre of design for this study and integrates well with the other forms of qualitative data collection techniques already mentioned (Riessman, 2002:706). Narrative can therefore be seen as a potentially useful research tool to complement the use of other ethnographic and ethnomethodological data collection strategies including interviews and observation as used in this study.

1.7.5 Data Analysis

Miles and Huberman (1984:54) describe the dilemma that researchers may face when confronted with a mountain of unanalysed data. Words have multiple meanings and it is not always possible to elicit meaning from data by simply converting it to a computable format like numbers (LeCompte & Preissle, 1993:235). According to Creswell (1994:124) there is no "right way" of doing this. The methods used for analysis in this inquiry will, therefore, be incorporated according to the purpose of the method and the appropriateness in each case. The following section refers to the analysis of data gathered using a variety of qualitative techniques in this study.

All of the textual data from transcripts of interviews and of fieldnotes will be analysed by means of interpretive (as opposed to superficial, empiricist) content analysis in mostly inductive fashion, not unlike the basics of grounded theory analysis (Strauss and Corbin, 1990). In this type of analysis I will code and categorise data taking cognisance that the researcher must be comfortable with the development of categories and the making of comparisons and contrasts during the process of data analysis (Creswell, 1994:153). LeCompte and Preissle (1993:210) also advocate the process of breaking down the data into segments of meaning for analysis and then categorising the segments. Merriam (1998:192)

summarises this process as the development of themes, categories and other taxonomic classes that interpret the meaning of the data. When categories and their properties are reduced, refined and linked together by tentative hypotheses, the analysis moves towards the development of a theory to explain the data's meaning. This is what Strauss and Corbin (1990) refer to as "open coding". Open coding refers to the creation of categories pertaining to certain segments of text. Coding of data will be done using sentences as segments in order to identify all possible categories (or tensions in the activity system in this inquiry) and create a larger basis for theoretical sampling (Babbie & Mouton, 2001:500).

Main categories or themes will be constructed from previously coded data units with their ensuing categories (Flick, 1998:179) but in some cases the codes derived from basic content analysis as described above will be used to identify tensions between the various components of the activity system described in the following Chapters. All data gathered using the methods described above will be mapped onto the expanded activity triangle as proposed by Engeström in 1987 (See Chapter 3 for a detailed description of this triangle).

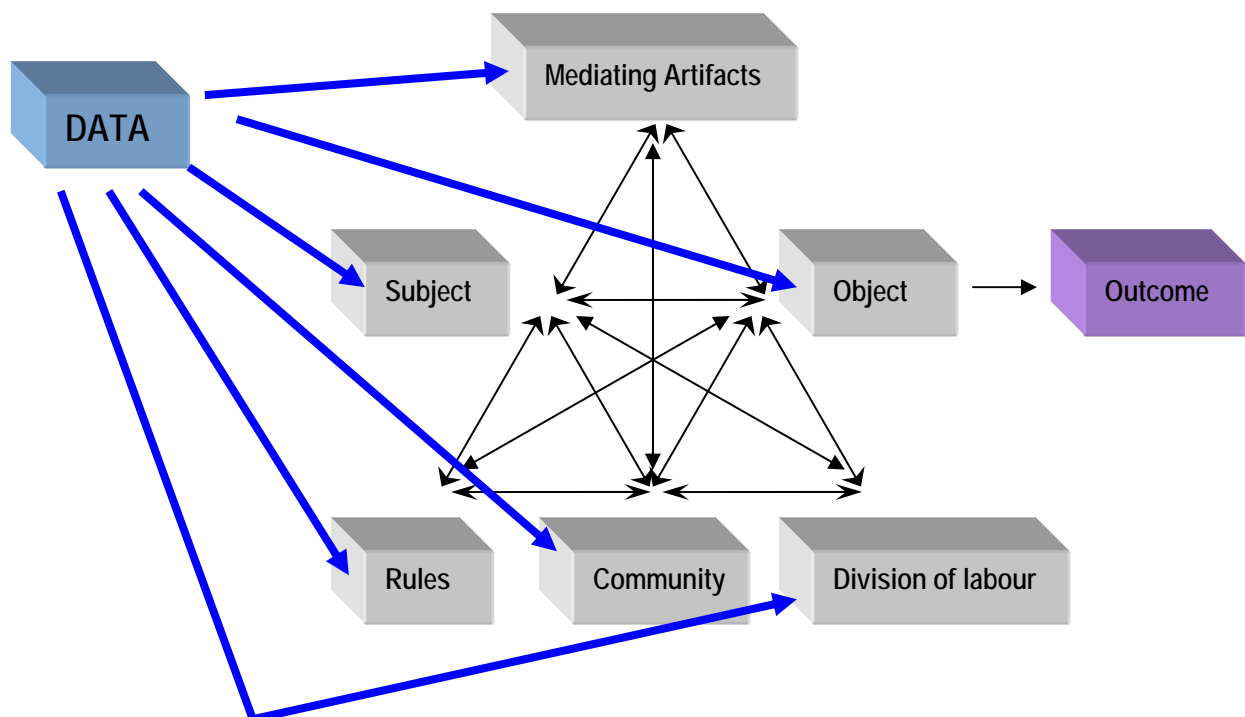


Figure 1.3: Using Activity Theory as an analytical tool

Data mapped onto the activity triangle as indicated in Figure 1.3 above will then be used to illuminate a variety of the contradictions and tensions that exist within the activity system at the HEI. These contradictions or tensions that arise between the various components of the activity system are critical to understanding what motivates specific actions within the activity system and, more generally, in understanding the dynamic nature (evolution) of the system (Barab, Barnett, Yamagata-Lynch, Squire & Keating, 2002). The arrows between the components of the triangle represent system dualities (Barab et al., 2002) that must be understood in order to understand the continued development of the system. Wenger (1998) argues that it is the interplay between these dualities that drive the activity system. As tensions enter the system they become the driving forces behind the disturbances and innovations that ultimately cause the system to evolve and develop (Barab et al., 2002:80). By viewing data through this Activity Theory lens I aim to ultimately expose the factors that affect the emerging epistemologies and pedagogies of lecturers engaging with the tools of ICT at the HEI.

In other instances where categories or themes are evident I will then trace patterns of meaning further from the themes and argue the final data configurations from a three-tier theory base – thereby constructing meaning from the specific position of Activity Theory, distributed cognition and social constructivist theory. The thick description that will ensue from this will be distinguished from what many authors refer to as a “thin description”, meaning a listing of summarised empirical information. A full account of this analysis can be found in Chapter 4.

In the ethnomethodological fieldnotes and in the discourse analysis I will also look for markers that may indicate epistemological and pedagogical shifts during the uptake of ICT. Making sense of the data will mean that I am generating evidence to support a claim to knowledge (McNiff & Whitehead, 2002:99). To ensure that the claim is not regarded as only my opinion, I will open the findings to comments from the participants. In other words, I can make a claim to knowledge and show that the claim has been generated through the rigorous procedure of producing

validated evidence from systematically monitored practice. Inductive analysis of the fieldnotes will be done with the subsequent grouping of related data units and the search for associations of meaning. This will add an extra perspective to the process of data analysis. The analysis of data by the various methods mentioned above will be used to provide alternate perspectives on, or support for, the findings obtained by the process of narrative data analysis mentioned below.

In this study, narratives will be analysed performatively as proposed by Langellier in 1989 (as cited by Riessman, 2002:701). This is only a single point of entry with other investigators proposing the analysing of narratives textually, conversationally, culturally, or politically/historically. The performative approach is emphasised in this inquiry because “a story involves story-telling, which is a reciprocal event between the story-teller and the interviewer” (Riessman, 2002:701). The story-tellers’ “preferred identity” will be revealed in the stories they tell. The identity of the story-teller is situated and accomplished in social interaction and in no way should be seen as inauthentic. I argue that this is a suitable analytic solution to working with interview transcripts that do not require fragmentation.

In the following Chapter I will expand on how I see lecturer’s as individuals who need to be understood as such but that they also must be seen as part of a larger social context within the HEI. In Chapter 2 I will also explain more about why Clandinin and Connelly’s (2000:50) notion of a three-dimensional narrative inquiry space will be adopted for the construction of the narrative segments in Chapter 5.

1.8 THE RESEARCH PROGRAMME

This thesis is divided into seven Chapters. The overview of the research programme can be seen in Table 1.1 with brief descriptions where necessary:

Table 1.1: Overview of the research programme

Chapter	Topic	Contents
Chapter 1	<p>Orientation to the inquiry</p> <p><i>This Chapter is provided here in order to present the background and general orientation to the inquiry. This Chapter is designed to make it easy to pick up on the reasons for conducting this research, find out what the researcher is trying to achieve, and how he plans to go about achieving these goals. It also provides the research methodological perspective that informs the reader of the variety of assumptions that have been considered by the author in this thesis.</i></p>	<ul style="list-style-type: none"> ❑ Background to the research topic ❑ Problematising the topic ❑ The purpose of the study ❑ Aim and objectives ❑ The contribution of this thesis ❑ Research methodological perspective <ul style="list-style-type: none"> ○ Philosophical and theoretical assumptions of the design ○ Methodological assumptions of the design ❑ Research design and framework of the inquiry <ul style="list-style-type: none"> ○ Participants in the study ○ Conceptual and theoretical frameworks of the inquiry ○ The research genre: nature of the inquiry ○ Methods of data collection and analysis ○ Data analysis ❑ The research programme ❑ Summary
Chapter 2	<p>Research methodology and design genre: studying changing theories of knowledge and teaching during engagement with ICT</p> <p><i>This Chapter is placed here in order to provide the reader with the background to how the genre of design developed from an</i></p>	<ul style="list-style-type: none"> ❑ Overview: design genre and choice of methodologies ❑ methodological reasoning: action research and the development of the design genre <ul style="list-style-type: none"> ○ The cyclic nature of action research: key theorists ○ Action research: development of the early design hybrid ○ Action research: locating a new

	<p><i>action research pilot study to the three-tiered design that forms the basis of the design hybrid as used in the newly adjusted inquiry.</i></p>	<p>design genre for an adjusted inquiry</p> <ul style="list-style-type: none"> ❑ Lecturers' changing theories of knowledge and teaching in first encounters with ICT: a design hybrid <ul style="list-style-type: none"> ○ Critical ethnography ○ Ethnomethodology ○ The discursive tradition: narrative inquiry ❑ Methods of data collection used in this study <ul style="list-style-type: none"> ○ Grounded theory methods in ethnography ○ The narrative interview ○ Ethnomethodological e-observation ❑ Data analysis ❑ Judging the value of the inquiry <ul style="list-style-type: none"> ○ From triangulation to crystallization ○ From truth value to a 'new' approach to validity ○ Validity in critical ethnography ○ Validity of the narrative segments ❑ Ethical issues ❑ Summary
Chapter 3	<p>Theories of tool mediation in context</p> <p><i>Included here in order to provide a comprehensive theoretical framework. This will constitute the basis from which the inquiry is built. The gist of this framework is Activity Theory, tool use and tool mediation as first propounded in socio-cultural and related theories.</i></p>	<ul style="list-style-type: none"> ❑ Introduction: emerging pedagogies and epistemologies ❑ Socio-cultural theory: a view on change ❑ Origins of Activity Theory ❑ Advances in Activity Theory ❑ The Zone of Proximal Development for lecturers engaging with the tools of ICT: construction zones for shared learning
Chapter 4	<p>Exposing tensions in an activity system through simple content</p>	<ul style="list-style-type: none"> ❑ Orientation ❑ Content analysis of individual interviews

	<p>analysis</p> <p><i>Included in this thesis to elaborate on the processes and procedures that were carried out during the analysis of the interview transcripts. Tensions or contradictions that drive the individual activity systems have been identified through the analysis of data from nine individual interviews.</i></p>	<ul style="list-style-type: none"> ○ David's interview ○ Susan's interview ○ Brian's interview ○ Mark's interview ○ Ellen's interview ○ Irma's interview ○ Hester's interview ○ Walter's interview ○ Rose's interview □ Summary of this Chapter
Chapter 5	<p>Exposing general social processes through narrative analysis</p> <p><i>This Chapter presents a narrative analysis of nine interview transcripts. Each narrative emphasises the performative nature of the narrative. The lecturer's "preferred identity" is revealed through the stories they tell.</i></p>	<ul style="list-style-type: none"> □ Introduction: Narrative analysis □ Lecturers' stories <ul style="list-style-type: none"> ○ David's story ○ Susan's story ○ Brian's story ○ Mark's story ○ Ellen's story ○ Irma's story ○ Hester's story ○ Walter's story ○ Rose's story □ A final word on these narratives
Chapter 6	<p>Discussion of the findings: Towards expanded learning</p> <p><i>An overview of the main findings arising from the empirical study as described within this thesis. Tensions that are critical to understanding what motivates specific actions within the activity system and, more generally, in understanding the dynamic nature (evolution) of the system are discussed. This is followed</i></p>	<ul style="list-style-type: none"> □ Introduction <ul style="list-style-type: none"> ○ Commonalities in the tensions derived from the analysis of the interview transcripts in Chapter 4 ○ Significance of the narratives presented in Chapter 5 □ The types of stories in which participants place themselves □ How participants position themselves □ How participants position others □ Identity claims made by participants □ Views of personal epistemologies and pedagogies over time

	<i>by an elaboration on the significance of the narratives leading to a description of the narratives in terms of the theory of expanded learning. The various contributions of the inquiry are discussed leading to a section on the implications for the preparation of an ICT community of practice.</i>	<ul style="list-style-type: none"> <input type="checkbox"/> Viewing narratives in terms of the theory of “expanded leaning” <input type="checkbox"/> Theoretical contribution of the inquiry <input type="checkbox"/> Methodological contribution of the inquiry <input type="checkbox"/> Implications for the preparation of a community of practice <input type="checkbox"/> Other significant findings <input type="checkbox"/> Summary of the Chapter
Chapter 7	Overview, limitations, and issues for further research	<ul style="list-style-type: none"> <input type="checkbox"/> Overview of the inquiry <input type="checkbox"/> Reflecting on the research question <input type="checkbox"/> Limitations of the research <input type="checkbox"/> Issues for further consideration and research <input type="checkbox"/> Final comment

1.9 SUMMARY

This Chapter serves to provide a general orientation to the study. It was acknowledged in the initial paragraphs of the thesis that educational reform is taking place on a worldwide scale and that South African tertiary institutions are hard-pressed to improve teaching practice in order firstly to live up to consumer expectations, then to show continual improvement and innovations in the field of education. ICT was described as a feature that has emerged to provide educational solutions in this technological age, but despite this, the lecturer’s engagement with ICT at the HEI under scrutiny was characterised by lecturers who fell into one of the following three groups: non-uptake, adopt-and-abandon, or adopt-and-sustain. Although ICT forms only a part of the changing face of education in South Africa, the changing epistemologies and pedagogy of the lecturers in this process of transformation was identified as a central issue. The concern of this thesis, therefore, was described as the *lecturers changing theories of knowledge and teaching during their initial engagement with ICT in an Education Faculty* throughout the course of their day-to-day activities, including

teaching and research projects and how this reflects possible change in their practice. Possible reasons for this variety of engagement with ICT were then located within the dimensions of the unit of analysis of the study, namely, *lecturers' changing theories of knowledge and teaching in first encounters with ICT in education* and the main research question was stated as: ***how does initial engagement with ICT affect change in epistemology and pedagogy in the practice of higher education practitioners, and how can narrative analysis reflect this?***

The research methodological perspective of the researcher was then presented and provides the reader with philosophical, theoretical and methodological assumptions of the design used in this inquiry. These perspectives, in turn, laid the foundation for the brief description of the research genre that was implemented in this study. The three methodologies used in this study to elucidate lecturers' changing theories of knowledge and teaching in first encounters with ICT from a variety of perspectives were introduced and the argument that the underlying epistemologies of the three methodologies are complementary and will examine the unit of analysis more effectively than a study using a single methodology was presented. Optimal richness and variety of data and of data analysis options was highlighted as a main objective and will be achieved by employing the 'eclectic mix' of ethnographic methods along with the 'spoken word' that will feature in the ethnomethodological and in the narrative analysis methods. The use of narrative analysis in this process was then pinpointed as the research tool that also features in the other main methods of data collection and therefore qualifies it as the main research tool in this inquiry.

Chapter 2 provides the reader with the background to how the genre of design developed from an action research pilot study to the three-tiered design that forms the backbone of the design hybrid as used in the newly adjusted inquiry. This section is purposefully placed here in order to ensure a logical flow of thought and easy understanding of the design logic for the reader.

CHAPTER 2

RESEARCH METHODOLOGY AND DESIGN GENRE: STUDYING CHANGING THEORIES OF KNOWLEDGE AND TEACHING DURING ENGAGEMENT WITH ICT

2.1 OVERVIEW: DESIGN GENRE AND CHOICE OF METHODOLOGIES

The choice of the term *genre of design* as used in this study as opposed to *design type* has already been mentioned briefly in paragraph 1.7.3. In this regard, Henning et al. (2004:31) state that research methods should include the researcher's reflexive knowledge of how language makes meaning, the role of theory in interpretation and understanding, and how ideology and politics manifest in the research. For this reason, Henning et al. (2004:31) propose that the term genre "captures the nature of different types of qualitative research more adequately than the terms *type* or *format*."

Research design broadly involves deciding what the research purpose and questions will be, what information will most appropriately answer specific research questions, and which strategies are most effective in this process of information gathering and analysis of this information (LeCompte & Preissle, 1993:30; Mouton, 2001:55). The initial question is not "which methodology?" but "what do I need to know and why?" The best way to collect the information and what to do with it once it has been collected must then be determined (LeCompte & Schensul, 1999:62). The way in which this study was conceived and executed, and how findings will eventually be put together have to form a cohesive unit and be based on my own philosophical/paradigmatic perspective as researcher. This is referred to by Henning et al. (2004:30) as the "epistemological and thus the methodological home of the study" (compare Alvesson & Sköldberg, 2000:5, where they state that "it is not methods but ontology and epistemology which are the determinants of good social science"). Alvesson and Sköldberg (2000:7) add that "referring to philosophical ideas without really using them is pointless,

bewildering and means a waste of the time and energy both of the researcher and of his or her unfortunate reader.” The interplay in this thesis between my personal philosophical ideas and the empirical work marks what Alvesson and Sköldbberg refer to as high quality social research. The way in which I see and interpret the world (my ontological position) has determined what questions I ask in this inquiry and is related to my own theory of knowledge (my epistemological position) and ultimately how I designed the inquiry.

In this Chapter I will firstly provide an account of the development of the design genre as it unfolded during a period of action research and then elaborate on my plan to investigate how engagement with ICT reflects possible change in epistemology and pedagogy of nine members of an Education Faculty. The “step-by-step planning of the research project” (Bless & Higson-Smith, 1995:63; LeCompte & Schensul, 1999:61) that will be followed in order to gather, record and analyse data in this study will be explicated. I will argue the design logic and also reflect on my role as researcher.

2.2 METHODOLOGICAL REASONING: ACTION RESEARCH AND THE DEVELOPMENT OF THE DESIGN GENRE

Traditionally, social research has followed what I see as an *externalist approach* where the researcher investigates others “out there”. The intent in action research is quite different and it was this aspect that drew me to action research during the early days of this inquiry. With this intent in mind, a more *internalist* approach with the focus on the individual “I” developed throughout the inquiry with the additional focus on taking *action* on the situation at hand, which at the time involved engagement with ICT by myself and other Faculty members. At that time, ‘action’ included my attempts at trying to understand and improve the situation (community building and engagement with ICT) at both a personal and social level within the structures of the HEI. A brief account of this period in the inquiry has already been presented in paragraph 1.2 and serves as a background to this section.

Throughout the early stages of this inquiry one of my main concerns was how to evaluate 'what I do' and action research seemed to have potential as a planning and evaluation framework. From the research methodologies that I initially explored, I chose action research as the initial methodology for the following reasons:

- The changing educational landscape within the country has created the need for a major shift in the way ICT is implemented at HEI's. Both Faculty members and myself, as a lecturer and 'support' staff member in the educational ICT field, jointly expressed a need to find a way to improve the practice of lecturers within the Faculty and its various departments.
- The necessary steps in order to move forward in this new direction initially were not very clear. Although I began with a specific plan for the research, I had to leave open the possibility of changing or adapting the research methodology to suit the situation. The 'emergent' character of action research provided this flexibility.
- I started with a 'fuzzy question' for which there were initially no clear answers. McNiff and Whitehead (2002:5) confirm that in action research the answers will emerge over time if one is true to that sense of enquiry.

This study then progressed through a number of stages that action researchers would almost unanimously describe as 'cycles'. For example, due to unsatisfactory participation in the online community that was created for lecturers, new plans and procedures had to be implemented resulting more often than not in a new focus, new plans and further observation and reflection on the implementation. My expanding understanding of the literature and the developments in the field of action research was, however, not a linear process as depicted in this section, but was rather a process of discovery driven by the tenets of action research itself. What follows is an orderly introduction to action research, its cyclic nature and its use in this inquiry interspersed with short personal notes that allude to the development of the new design genre for the adjusted inquiry that was to follow.

2.2.1 The cyclic nature of action research: key theorists

A number of influential and prominent researchers of the day have provided accounts of key theorists in the development of action research over the years (Noffke, 1997:2; Greenwood & Levin, 1998:15; McNiff & Whitehead, 2002:39). It is, therefore, not my aim to provide a comprehensive account of the history of action research but rather to outline how selected models reflect forms of theory. From a study of these key models I was able throughout the early stages of the inquiry to decide whether or not to adopt the models or create others that would better show the values and assumptions informing my own practice.

Kurt Lewin's work in the 1940's (as cited in Greenwood and Levin, 1998:15 and McNiff and Whitehead, 2002:40) led to the coining of the term action research and gave it 'meanings' that are similar to those found in many recent publications. Lewin's work focused on how participation in decision-making could lead to enhanced productivity in industrial contexts. This model was easily adapted for the educational context. His three-staged model of social change included the *stable social state preceding change*, the *action intervention* or change process, and the *return to the stable state*. From this, Lewin developed a theory of action research as a spiral of steps involving planning, fact-finding and execution (Lewin, 1946: as cited in McNiff & Whitehead, 2002:39) which later became generally understood as an action-reflection cycle of planning, acting, observing and reflecting as seen in Figure 2.1 below.

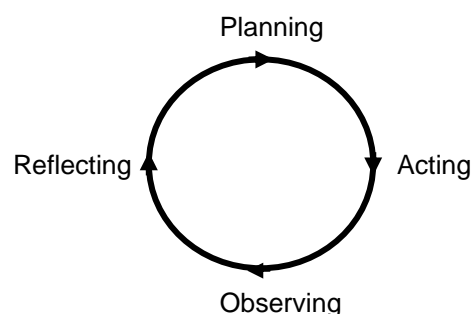


Figure 2.1: Action-Reflection cycle based on the work of Lewin (McNiff & Whitehead, 2002:40)

My initial thoughts on the inquiry were based heavily on what can therefore be seen as short term interventions. These short-term interventions, as depicted in the basic action-reflection cycle in Figure 2.1 above, are seen by Greenwood and Levin (1998:18) to be limiting in their modern view of action research where action interventions are seen as a continuous and participative learning process. For them, the core idea is to create sustainable learning capacities in your own practice and to give participants increased control over their own situations. Through further reflection on the progressions and developments within the group of participants, and taking cognisance of my increasing understanding of the literature on action research, the online component of the community of practice was subsequently created in order to provide the platform where action interventions could develop as a continuous and participative learning process. The term reflective practice has subsequently emerged in recent literature to describe this process.

McNiff & Whitehead (2002:18) credit the popularising of the term reflective practice to Donald Schön in 1983. Khune and Quigley (1997:24) remind us of John Dewey's 1916 emphasis on reflexive thinking and critical theory that laid the foundation for what Zuber-Skerritt (1992b:109) calls *action research as a critical education science*. In her 1992 publication, Kurt Lewin's concept of the use of cycles and Habermas' critical theory is credited with providing early perspectives on action research (Zuber-Skerritt, 1992b:109). Lewin and Habermas both maintained that knowledge in the social sciences must be practical and that theory must improve practice in order to be valid and useful. Action research was therefore understood as an approach to problem posing and problem solving that proceeds through the four distinct processes of plan, act, observe and reflect as illustrated in Figure 2.1. These core processes are further highlighted in Figure 2.2 on the following page:

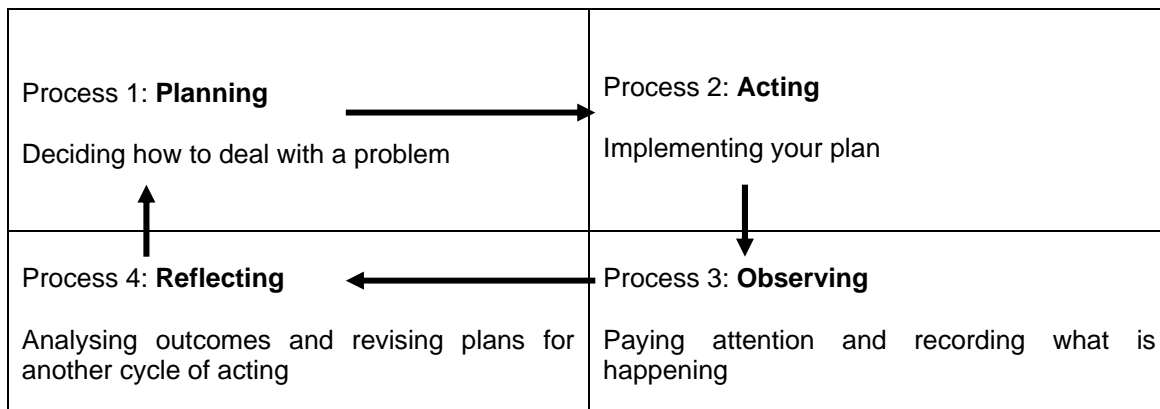


Figure 2.2: Four core processes of action research. Responding to practice problems through problem posing and problem solving (Khune & Quigley, 1997:25).

These cyclic moments of *planning, acting, observing* and *reflecting* could then go on to the next cycle of replanning, acting, observing and reflecting and the creation of a new cycle (Zuber-Skerritt, 1992a:13; McNiff & Whitehead, 2002:41). Having completed one such cycle, Webb (1996:147) proposes that action researchers may then spiral into a further cycle or what he calls *offshoot cycles*. A significant feature of action research is that everyone agrees that it operates in cycles (McNiff, Lomax & Whitehead, 1996:22; Reid, 1997:200).

So the cycles continue, showing a change in thinking as well as a change in action. The change in thinking can also be seen as learning and, therefore, openness to learning is a necessary condition for action research (McNiff & Whitehead, 2002:42). The traditional spiral of action research cycles (Zuber-Skerritt, 1992a:13) can be seen in Figure 2.3 on the following page and it is significant to note in this Chapter how subsequent cycles are always a possibility when one revises and re-implements a specific plan. In this inquiry I have already gone through a number of ‘cycles’ but various authors also have differing concepts of cycles and how they occur, hence the discussion that follows Figure 2.3.

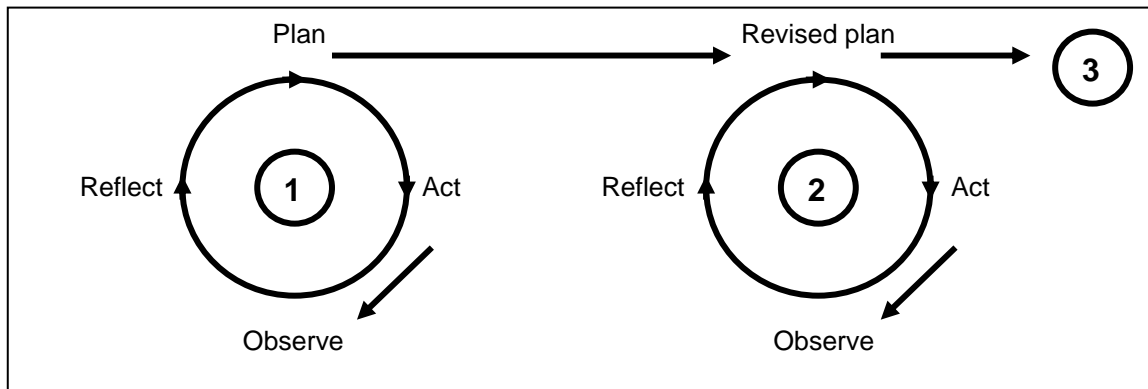


Figure 2.3: The traditional spiral of action research cycles (Zuber-Skerritt, 1992a:13)

Stephen Kemmis and his many collaborators (for example McTaggart in 1996 and Carr in 1986) encouraged the use of the term *educational action research* and contributed considerably to the understanding of the socially and politically constructed nature of educational practices (compare Noffke, 1997:12; Quigley, 1997:14; and McNiff & Whitehead, 2002:47). Kemmis's model of the action research process is also a self-reflective spiral of planning, acting, observing, reflecting and re-planning as the basis for understanding how to take action to improve an educational situation (McNiff & Whitehead, 2002:46). The emphasis in this model is, however, still on the way progress is made through a series of systematic steps. It is presented as if life follows a linear path and does not recognise the existence of related issues that may be relevant to the study. The spiral in this case is therefore not necessarily the most useful way in which to describe the action-reflection process as used in this inquiry. Some other models that take cognisance of this 'deficiency' with the single spiral will now be explored.

Griffiths' 1990 model as described in McNiff, Lomax & Whitehead (1996:22) contains three loops including an *inner loop* associated with reflection in action and an *outer loop* associated with long term reflection. In this series of spirals, feedback is an ongoing process in many ways at once, recognisable as the real world of practice.

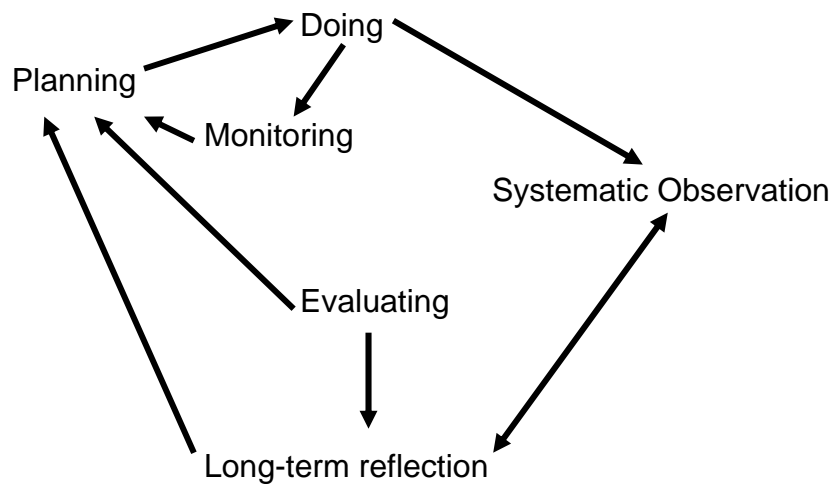


Figure 2.4: Griffiths 1990 model of action research cycles (McNiff, Lomax & Whitehead (1996:22)

Zuber-Skerritt (1992b:2; and 1996:83) proposes her CRASP model of action research (see meaning in Figure 2.5 below) in order to provide a theoretical framework, or meta-theory, based on critical reflections of action researchers within the educational setting. Writing from a critical theoretic perspective, Zuber-Skerritt (1996:86) maintains that “professional development in higher education can be achieved through collaborative, critical research into practice through cycles of continuous learning through experience and action research.”

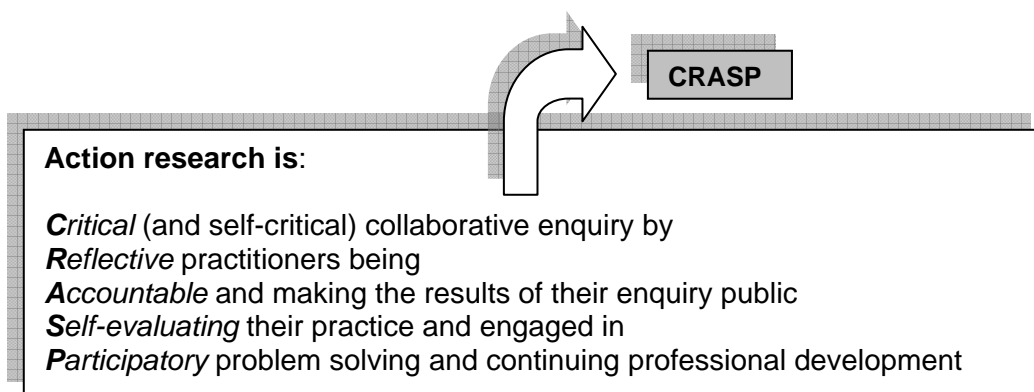


Figure 2.5: The CRASP model of action research for professional development (Zuber-Skerritt 1996:85).

The prescriptiveness of models is highlighted by McNiff and Whitehead (2002:51) as one of the criticisms in response to some of the models mentioned thus far. They maintain that it is difficult to portray practice as a linear and sequential process and models are not necessarily representative of the realities practitioners will experience. This has proven to be true as can be seen in the way this study has progressed. By transforming action research cycles into further spirals of action, the dynamic of the research and its capacity to adapt to new influences can be shown. Employing side spirals that make allowances for real life issues can accommodate the complex and unpredictable nature of real life practice.

McNiff (in McNiff & Whitehead, 2002:56) has developed a theory of the nature of action research that expands upon the models mentioned thus far. The systematic process of observe, describe, plan, act, reflect, evaluate, modify is still proposed but not as a sequential or necessarily rational process. Within this process it is possible to begin at one place and end up somewhere entirely unexpected. The visual metaphor that developed from McNiff's original 1988 model can be seen as spirals of action and reflection unfolding and folding back again into themselves (Figure 2.6). It attempts to communicate the idea of a reality in which it is possible to address multiple issues while still maintaining a focus on one.

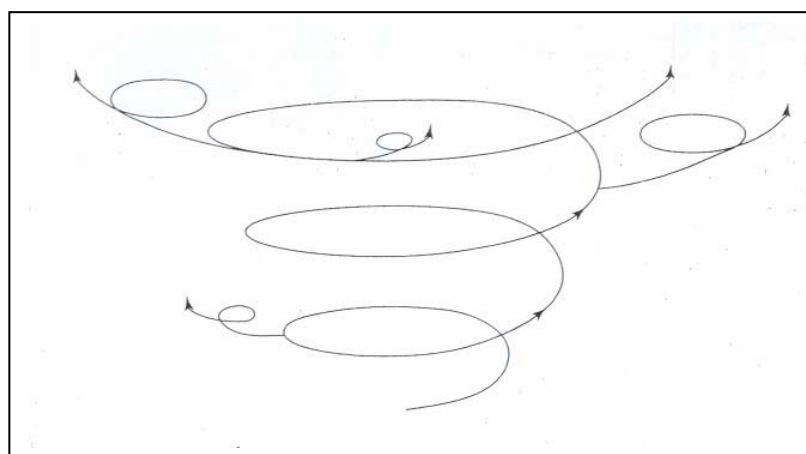


Figure 2.6: A generative transformational evolutionary process (McNiff & Whitehead, 2002:57).

2.2.2 Action research: development of the early design hybrid

According to Webb (1996:139), apart from phenomenology, action research is perhaps the most influential and almost certainly the fastest-growing orientation towards educational and staff development at present. I saw this initially as an acceptable argument, when the inquiry initially focused on the professionalisation of practice within a community of practice during first encounters with ICT, but as previously mentioned this focus changed. Webb (1996:139) also draws attention to the fact that action research is concerned with change, but more specifically, change in a particular direction. In the context of this study, *action* was initially focused on the gradual development of a community of ICT practitioners and how this represented a deliberate move into the context of social change. To be more specific, this inquiry was initiated through a sense of social action and the intervention was initially implemented with the participation of the lecturers for which the intervention was designed and had explicit emancipatory goals.

Zuber-Skerritt (1996:4) cites Carr and Kemmis as having distinguished between technical, practical and emancipatory action research in 1986 (based on Habermas's theory of three areas of knowledge interest, with the emancipatory model being the ideal). The notion of an ethnography as part of a hybrid design for the early inquiry was a logical progression and was supported by the reality that both critical ethnographies and action research often have explicit emancipatory goals (Marshall & Rossman, 1999:5). The early research design for this inquiry therefore evolved to eventually include both methodologies. The *emancipatory action research* component as envisaged in the early inquiry is briefly described along with suggestions of how it was to be implemented in the Table below:

Table 2.1: Characteristics of emancipatory action research with implications for this inquiry (Adapted from Zuber-Skeritt, 1996:4).

	Characteristics	Implications and suggestions for this study
Aims	<ul style="list-style-type: none"> □ Effectiveness/efficiency of educational practice. □ Professional development □ Practitioners' understanding □ Emancipation from the dictates of tradition □ Transformation of the organization and educational system 	<ul style="list-style-type: none"> □ Empowerment of lecturers engaging with ICT in education □ Improvement of lecturers' self confidence □ Development of a self-reflecting community of ICT practitioners at a Higher Education Institution
Facilitators' role	<ul style="list-style-type: none"> □ Process moderator 	<ul style="list-style-type: none"> □ The improvement of the situation in which practice takes place □ Professionalisation of practice through the development of a community of lecturers using ICT in their teaching □ Negotiating the complexities of relationships, purposes and transitions during the inquiry process
Relationship between facilitator and participants	<ul style="list-style-type: none"> □ Collaboration 	<ul style="list-style-type: none"> □ Mediator within a community of lecturers engaging with ICT in education, with each contributing on equal footing and providing their own unique input.

At this stage of the inquiry it was, therefore, my intention to implement a *qualitative design*, underpinned by the basic principles of *action research*. More specifically, the approach I initially envisaged could have been characterised as ethnographic, naturalistic, holistic, descriptive and *interpretive*. Zuber-Skerritt (1992b:141) sees this as an appropriate approach for evaluating human phenomena in complex relationships with the aim of effecting change by integrating theory and practice in action research with or by the teachers themselves. Action research was also initially included in this early research design in order to attempt to include academics who would not under normal circumstances discuss and critically reflect upon their courses and programmes with others. It was my hope that through my intervention the participants would become more reflective and critical in examining their educational practice in relation to its larger social and historical contexts (Reid, 1997:201). Based on this premise I started to explore sociocultural

theory and how social practices during engagement with ICT could lead to new spatial, cultural and social relationships for lecturers' at the HEI (without knowing at the time how much this aspect would ultimately influence the design of this inquiry). This could be seen as one of the turning points in this inquiry which ultimately led to the development of a new design genre. This development, however, only became a reality after a more in-depth exploration of action research which slowly revealed certain limitations in the design and justified the adjustments noted below.

2.2.3 Action research: locating a new design genre for an adjusted inquiry

To the novice researcher, the basic principles of action research as proposed by a variety of authors may seem superficially similar, but after a more in-depth study of the literature does one come to the realisation that there are a number of documented types of action research, all with their own advocates and supporters. Both subtle and major differences between the different types of action research can be easily identified by comparing the work of only a few action research authors such as Zuber-Skerritt (1996:84), McNiff, Lomax and Whitehead (1996:9), and Kuhne and Quigley (1997:23) to name but a few. After considering the extensive literature available I decided *not* to portray action researchers by approaches to action research, by country (eg. Australian, British, American), nor in chronological order of development, but rather to represent them as three well-documented types of action research, namely critical, interpretive and living theory action research (McNiff & Whitehead, 2002).

In this inquiry I gradually came to understand that by observing others doing their action research (lecturers reflecting on their initial encounters with e-learning in this case) I had been undertaking *interpretive action research*. I as the researcher would, therefore, have been 'speaking on behalf of others' if the study progressed in that vein. In *self-study*, however, I as the researcher was in a position to observe my own practice encouraging other lecturers with similar interests (engagement with the tools of ICT in this case) to do the same. At this point there

is a need to provide more detail of actual 'happenings' during these early stages in the inquiry without which the action research component of any study would be purely anecdotal. As already mentioned earlier in this thesis, by reflecting on my own practice as a professional educator throughout the early inquiry I eventually came to focus on how I could contribute to the development of a self-reflecting community of online practitioners at a HEI. This entailed a great deal of time deciding on the most appropriate way to go about this task. In the process I have come to appreciate the need for confidence in uncertainty in professionalisation of practice. To explain this further, in my initial work on this thesis I felt that it was my responsibility to ensure that Faculty members and their early endeavours at facilitating online courses stayed on track. I also believed that it was my responsibility to change their way of thinking about using technology in their teaching. I eventually came to understand that this should not have been my focus and that rather by sharing the 'lived experience of their storied lives' I was in a position to encourage Faculty members to develop confidence in their own endeavours involving ICT. No longer was my research purpose the quest for certainty. Rather, my work encouraged practitioners to be aware of how they went about implementing ICT in their teaching (action), to reflect on their action, and to use their knowledge to improve their own social situations (compare McNiff & Whitehead, 2002:5).

The online community of educators that was created in the final cycle of the action research process in the early inquiry was therefore meant to be composed of autonomous lecturers using ICT in their practice as educators, committed to accepting the responsibility of their own actions and potential influence (McNiff & Whitehead, 2002:89). This 'living theory approach' to action research as described by McNiff & Whitehead (2002:58) was, therefore, implemented during the final stages of the action research process in the latter stages of the inquiry. This continued for a short while until the eventual demise of the online component of the community of practice.

A reflection on the inquiry up to that point was written and presented in June 2003 at the ED-MEDIA World Conference on Educational Hypermedia &

Telecommunications, in Honolulu, Hawaii (Lautenbach & Van der Westhuizen, 2003). In this article I stated that one of the basic tenets of my philosophy is that the development of a culture for improving 'e-learning' and the professional development of lecturers implementing ICT rests upon supporting the knowledge-creating capacity in each individual in the system and most importantly, the sharing of this knowledge. Unfortunately, participation in the online community was limited to a few contributions by some participants and even e-mail reminders sent to a mailing list did not inspire participants to take part. A new way to explore changing epistemologies and pedagogies of lecturers had to be found; hence the implementation of new methodologies within a design genre that would illuminate participants lived experience of their storied lives as professionals who have moved from face-to-face teaching to the use of the tools of ICT in their day-to-day practice as educators.

Through reflection on the action research process described above, I have found that the use of the computer has not only been prominent in the changing of situations and contexts in my own engagement with ICT, but has also led me to change certain activities and goals in this process, which are ultimately realised as changes in me (the tool user). Lecturers within the HEI have also encountered similar experiences during their engagement with the tools of ICT. These observations about lecturers' experiences are included here because they are the initial indicators of my emerging regard for the concept of tool use in educational ICT. I argue here that electronic tool mediation in ICT, as in the tradition of socio-cultural theory and Activity Theory, has the potential to generally change human practices and for this reason can be included in the theoretical framework that underpins the design hybrid that follows. A full description of the theoretical underpinnings of this inquiry can be found in Chapter 3.

2.3 LECTURERS' EMERGING THEORIES OF KNOWLEDGE AND TEACHING IN FIRST ENCOUNTERS WITH ICT: A DESIGN HYBRID

At this stage I was able to identify the unit of analysis of this adjusted inquiry and pose the main research question. I had noticed that my colleagues were

challenging the epistemological bases and also the pedagogy of their online work. In informal discussions it was evident that their tacit theories of knowledge and of learning were being questioned. Those colleagues who abandoned their online projects had admitted that the shift from a linear fixed curriculum to a networked online curriculum was either too daunting or simply did not interest them. By now I was ready to conceptualise the unit of analysis: *lecturers' changing theories of knowledge and teaching in first encounters with ICT*. Concomitantly, the main research question is: *how does initial engagement with ICT reflect possible change in epistemology and pedagogy in the practice of higher education practitioners?* This research question required a suitable design. After deliberation and preliminary discussions with both 'uptakers' and 'abandoners' of ICT during the latter cycles of the action research process, a hybrid design was conceptualised, aiming to address the research question and to achieve the aims of the inquiry as set out in paragraph 1.5

The study required data that would reveal the lecturers' experiences and their assumed shifting theories of knowledge and teaching. Data collection methods would thus include e-observation of course documents and artefacts, in-depth interviewing of lecturers, and inspection of student learning artefacts. Furthermore, I also had to analyse the data in ways that would reveal lived experience (Clandinin & Connelly, 2000; Boje, 2001). Thus, in addition to conventional grounded theory content analysis (Charmaz, 2003) I would need to conduct discourse analysis of selected interview data and of the course documents. In addition I would also use narrative analysis as tool to capture the stories of the lecturers. These methods of gathering and analysing data were placed in a hybrid of research methodologies, many of which focus on qualitative data and have been spawned by the interpretive turn in social science research (Gubrium & Holstein, 2002; Eberle & Bergman, 2005).

In a rapidly changing and complex social world, pragmatic blending of methodologies and methods are not unusual (LeCompte & Preissle, 1993:35). Social change and the resulting diversification of life worlds are increasingly confronting social researchers with new social contexts and perspectives (Flick, 1998:2). Qualitative research genres have become increasingly important modes

of inquiry for the social sciences and applied fields including education (Marshall & Rossman, 1999:1). The social sciences now present a wide array of 'alternative' research methods resulting in what Denzin and Lincoln (2003:24) term "blurred genres". *Narrative analysis* has sprung from philosophy and interdisciplinary work. *Critical ethnography* and *action and participatory research* have emerged from critical traditions and postmodern perspectives (Marshall & Rossman, 1999:1). As a qualitative researcher in this study I am intrigued with the complexity of social interactions as lecturers engage with the tools of ICT in an Education Faculty, and the meanings that the lecturers themselves attribute to these interactions. This leads me to the 'natural setting' where I apply an interpretive and critical approach to the application of multiple methods of data collection and analysis in the inquiry. This research design is therefore pragmatic, and both interpretive and critical, and grounded in the lived experience of the participants.

The specific genre of design for this now adjusted inquiry can be seen as a triangular hybrid that includes components of the ethnographic, the ethnomethodological and the discursive tradition of qualitative inquiry (Flick 1998; Alvesson & Sköldbberg, 2000:38/200; Henning *et al.*, 2004:42). I contend that lecturers' changing theories of knowledge and teaching in first encounters with ICT may be highlighted from a variety of perspectives using a combination of these methodologies. It is also my conviction that the three methodologies are complementary and will provide optimal richness and variety of data. The ethnographic, ethnomethodological and discursive components in this hybrid of methodologies will be described in more detail in the following sections of this Chapter where the focus will fall on narrative as a potentially useful research tool to complement the use of other data collection strategies including interviews and ethnographic observation as used in this inquiry.

In the hybrid design one can therefore recognise components of a critical ethnography, ethnomethodological inquiry and discourse analysis inquiry (focusing specifically on narrative methods). Data derived from these sources will then be scrutinised further using Activity Theory as an analytical tool. In other words, Activity Theory will not only form part of the theoretical framework for this inquiry, but will also be utilised in the process of data analysis. I argue that Activity Theory

has gained credibility as an approach to research that takes into account the cultural and organisational context while focusing on daily routine work and is a suitable heuristic mechanism for organising knowledge about activity and tool use in a sociocultural context. In particular, Activity Theory as an analytic tool has the potential to accentuate fine details of activity, action and operation towards achieving a goal, which in this case is changing individual lecturers' theories of knowledge and teaching through engagement with the tools of ICT. A schematic representation of this situation can be seen in the Figure below.

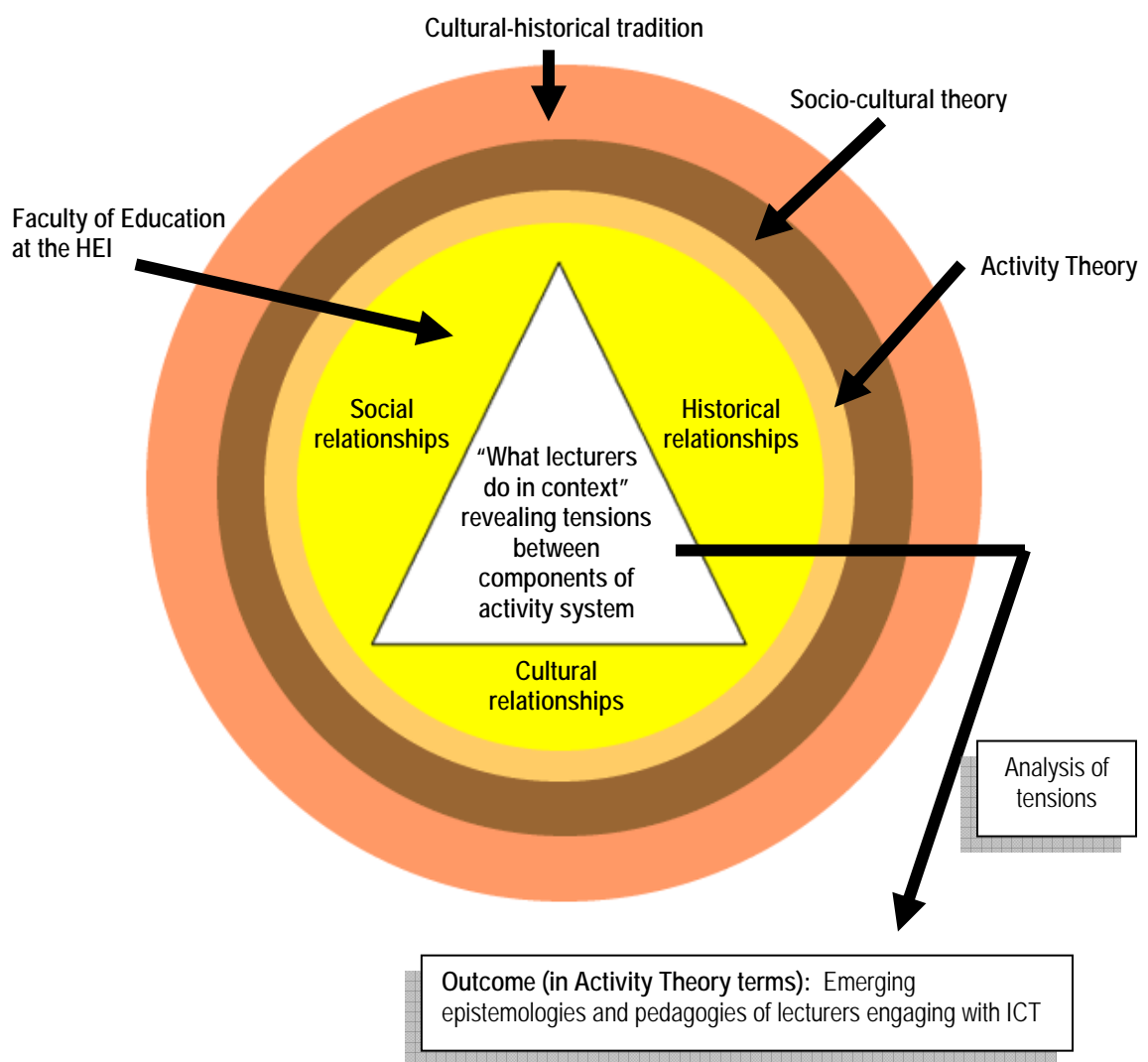


Figure 2.7: Using Activity Theory as theoretical lens and analytical tool

Multiple research methodologies such as this are increasingly being implemented in changing societies and challenge the dominant methods that have been preferred in the past (Philips & Hardy, 2002: 13). Riessman (2002:707), for example, is of the opinion that science “cannot be spoken in a singular universal voice” because any methodological standpoint is, by definition, partial and incomplete. Diversity of representations is suggested. Combining methodologies into a hybrid of design types as seen in Figure 1.2 forces me as researcher to confront troublesome issues while at the same time compelling me to first understand how the individual methodologies came to be and question their usefulness in the overall context of the inquiry. The three methodologies that make up the hybrid design in this study will now be described in more detail in the following paragraphs in an attempt to answer the questions:

- Why the choice of methodology?
- What is it?
- Where did I implement it?
- How did I implement it?

Each section will include relevant theory and my personal narrative answering the above questions.

2.3.1 Critical ethnography

The changing status of qualitative research designs and ethnography in particular, from marginal or complimentary methods in the social sciences and education to “a position of assured legitimacy” has been noted (LeCompte & Preissle, 1993:23). After a long period of being viewed as a theoretical orientation and philosophical paradigm within anthropology, ethnography has more recently been adopted as a useful methodology in a variety of fields including education (Tedlock, 2003:190). Educational ethnography has been used in the past to describe educational settings and contexts, to generate theory, and to evaluate educational programs (LeCompte & Preissle, 1993:8) and is now seen as one of the major methods of researching educational settings (Walford, in the preface to Carspecken &

Walford, 2001:vii). Educational ethnographies, however, vary in focus, range and methods of execution.

Henning et al. (2004:42) affirm that it is not easy to characterise ethnographies by their boundaries alone and this is due to the complexity of the methodological principles that guide all ethnographic inquiries. Getting to know about the participants in the inquiry and observing their practices as they go about their daily lives can be seen as the 'system' that an ethnography sets out to capture. As an ethnographer I needed to spend sufficient time with the participants in order to probe their changing ways of thinking about engaging with ICT and their changing theories of education in general. As mentioned in Chapter 1, the participants who were initially invited to become part of the online community of ICT practitioners included lecturers and non-academic staff members within the Education Faculty. A few other staff members from other departments within the HEI, each with a personal interest in ICT and the use of new technologies in education, were also invited to join the community. Participants had varying experience in the field of ICT, ranging from the complete novice to some lecturers with at least 4 semesters (two years) experience in teaching with technology. By inquiring into the way of life of this identifiable group of individuals during the early stages of the action research inquiry for an extended period of time, I was able to capture their typical activities and tools, and their ways of making meaning of their engagement with ICT. This also included the noting of their everyday rituals and practices, the actions that emerged as 'typical' of the group, and the way in which they verbalised their encounters with the technology. Upon reflection on this rather jumbled mass of research notes, I as the primary tool of data collection (Schensul, Schensul & LeCompte, 1999:1) generated some understanding over time of their changing epistemologies during engagement with ICT and also about the 'ethnographic process' in general. It was based on this understanding of the system that the purposive selection of participants for the newly adjusted inquiry could be made. The participants in this inquiry are now the selected group of nine lecturers who were chosen from the original cohort of over fifty academics who were initially invited to take part in the study.

The elaboration evident in the previous paragraph has been provided to illustrate that an ethnography can be seen as both a product and a process (LeCompte & Preissle, 1993:1). The *product* can be seen as the 'story' that was told and the *process* is evident in the method of inquiry which leads to the story. All of this including the choice of ethnographic design, however, is based on various theoretical perspectives. These perspectives could originate from the fields of sociology and anthropology, including structural functionalism, symbolic interactionism, social exchange theory and conflict theory (LeCompte & Preissle, 1993:141), or even include critical, feminist, poststructural or even postmodern approaches to research. The data and depiction of data advocated by each theoretical framework will differ according to how the researcher selects and uses a specific theoretical framework in an accurate portrayal of uncontrived group action over a period of time, faithfully representing participant views and meanings. One of these approaches includes the combination of ethnographic methods and perspectives from critical theory by what LeCompte and Preissle (1993:142) identify as "a whole generation of critical ethnographers".

One of these critical ethnographers, Phil Carspecken, who places his own ethnographic work within this typology (Carspecken, 1996:3), emphasises that critical ethnographers are all concerned with social inequalities and direct their work toward positive social change (See also: Gordon, Holland & Lahelma, 2001:194). The focus is, therefore, on the refinement of social theory and not only on the description of social life. Critical ethnography is grounded in critical theories and has developed in the educational field to be a way of applying a subversive worldview to the conventional logic of cultural inquiry (Thomas, 1993:vii; Marshall & Rossman, 1999:6). Through describing and analysing social 'realities', critical ethnographers expose to scrutiny otherwise hidden agendas and assumptions that need to be questioned (Thomas, 1993:3). Critical ethnographies not only inquire into the way of life or culture of a group of people to expose underlying power relations but also have explicit emancipatory goals (Gordon, et al., 2001:193; Henning et al., 2004:3).

Furthermore, it has not been methodology that has distinguished critical ethnographies but rather the value orientation of the researchers and their assumptions about the social systems themselves (Carspecken, 2001:4). It is, however, important to stress the need for a shared methodological theory for critical ethnographies. Throughout the early nineties and up to the time of publication of Phil Carspeckens' book in 1996 various authors shared little consensus on the topic of a shared methodological theory for critical ethnographies. Up to this time, critical ethnography was still seen as an orientation rather than a "tight methodological school" (Carspecken, 1996:3). This author also refers back in his more recent works to early critical ethnographies as a loose genre of educational research (Carspecken, 2001:3) and for the first time, making use of various insights from critical social theory, elaborates on his developing methodological theory on this topic (Carspecken, 1996). My own personal epistemological theory as researcher in this inquiry is influenced by Carspeckens' writings and, in the context of this critical ethnography, draws upon a pragmatic theory of truth rather than an empiricist (representational) theory. This pragmatic approach rooted in Habermasian critical theory allows me to escape the crisis of representation as described by Denzin and Lincoln (2003:25). In this regard, I use my writing as a method of inquiry that moves through various stages of self reflection. My written representations of what happens 'out there' flow through a series of drafts to the thesis text which can be seen as my public representation of the ethnographic and narrative experience. The fieldwork and the writing are connected and the two perspectives inform one another moving qualitative inquiry in a new and critical direction. Writing as a method of inquiry, as used in this thesis, is well documented by a number of authors in a variety of fields (Ellis & Bochner, 2003; Richardson, 2003; Tedlock, 2003; and Brady, 2003) but the specific focus of this inquiry is not only on the writing, but also on the lived experiences of the participants within their 'cultural setting' and the subsequent interpretation and writing of their narrative stories.

Within the context of this inquiry, the 'tools' of ICT with a specific focus on the computer as a tool, can be seen as the 'cultural commodities' being researched. The systemic inequalities that have been complexly maintained and reproduced by

the prevailing culture within the Faculty are also evident. Many lecturers within this culture seem to be trapped by their own personal theories of knowledge and teaching more than by the technology itself. As a critical researcher I am opposed to this 'inequality' which can be seen as a structural feature of society. The aim of this inquiry is, therefore, to conduct research that will support efforts to reduce these inequalities through the process of developing a 'full description of the society' (group of lecturers) in order to provide details of their everyday lives (Charmaz & Mitchell, 2001:160).

Critical ethnography is described by Thomas (1993:2) as "a type of reflection that examines culture, knowledge and action." Conventional ethnography describes *what is*; critical ethnography describes *what could be*, and can be seen as conventional ethnography with a political purpose. Rather than speaking *for* the participants in this study, I have adopted the additional task as the critical ethnographer to speak to an audience *on behalf of* the participants, giving more authority to their storied lives. It is not my purpose to describe the educational ICT culture at the HEI, but to share the changing epistemological and pedagogical pathways of selected participants, in the form of narratives, that will ultimately influence the practice of other Faculty members. By interpreting the educational ICT culture within the Faculty, I as a critical ethnographer can attempt to provide insights about possible changes in epistemology and pedagogy of participants during the process of engagement with ICT that are often ignored by other approaches. The question of portrayal arises.

LeCompte and Preissle (1993:31) emphasise the problem that even though ethnographers attempt to interpret cultures accurately, they may struggle with the issue of portrayal due to the fact that they only see portions of a cultural reality. The 'reality' of a culture is also seen by some as the product of multiple perceptions, including that of the researcher, produced by the interaction between the researcher and the participants involved in the study. It is my belief that the use of narrative inquiry in this study will eliminate the problem of determining "how much of whose reality is portrayed, how it is portrayed, and how accurately." Narrative inquiry and the process of re-telling the stories of the experiences that

make up people's lives during the collaboration between researcher and participants, over time, is used in this study for understanding the "lived experience" of the lecturers implementing ICT in their teaching (Clandinin & Connelly, 2000:20).

The specific approach to ethnography in this study, as mentioned in the above text, is therefore closely linked to elements of ethnomethodological observation and narrative inquiry. An elaboration on the use of two other methodologies used in this study (ethnomethodological and narrative inquiry) will now follow.

2.3.2 Ethnomethodology

Flick (1998:19) and Alvesson and Sköldbberg (2002:38) concur that the origins of ethnomethodology lie in phenomenology and draw attention to the publication of *Studies in Ethnomethodology* (Garfinkel, 1967) where ethnomethodology was first distinguished as a distinct methodology. Ethnomethodology has its roots in symbolic interactionism and has since then evolved and is now marked by what Pollner and Emerson (2001:118) call 'diverse theoretical, methodological and substantive concerns'. The main concern of ethnomethodology remains, however, the analysis of the constructed nature of social meaning and reality. LeCompte and Preissle (1993:128) list the following assumptions relating to ethnomethodology:

- Meaning is constructed through social interaction
- Individuals act on the basis of meanings they perceive
- Meanings change in the course of interaction because of different perceptions held by the actors
- Reality is not a prior *given* (italics in original); it is based on interpretations and it is constructed during interaction between and among individuals
- Reality is not fixed, but changes according to the actors and the context

Just like ethnography, ethnomethodology is informed by the interpretive tradition and concerns itself with the lifeworld and point of view of the individual within the

social sphere, but despite these similarities, ethnographers and ethnomethodologists initially ignored the potential of combining methods from the two fields. Pollner and Emerson (2001:118), however, highlight recent attempts to integrate ethnography and ethnomethodology (Silverman, 1993; Gubrium & Holstein, 1997) and suggest that past differences may be dissolving into what they call 'an integrated methodological sensibility'. In this inquiry I have adopted this way of thinking and the two are utilised to compliment one another. Ethnomethodology, for example, compliments the key ethnographic feature of 'embodied presence in the social world' of the participants by insisting on the import of background knowledge in order to ensure clearer understanding of the lifeworld of the participants as embodied in their talk and actions. Ethnomethodological insights in this inquiry will, however, be used selectively in order to 'heighten sensitivity' to fundamental methodological issues and highlight the practices of the researcher and participants as proposed by Pollner and Emerson (2001:118). A brief introduction to ethnomethodology as utilised in this inquiry follows.

In this inquiry, what Henning *et al.* (2004) refers to as the "folk methods" of structuring and creating everyday life of participants are examined. The everyday methods that participants use to construct their social world will be scrutinised. I will focus on the meanings – both overt and covert – that participants attach to behaviour patterns and objects within their educational ICT 'culture'. This occurs within the natural setting of the HEI and involves intimate interaction with participants. In other words, I seek to capture how participants interact and construct meaning from their engagement with the tools of ICT while paying careful attention to what I can now refer to as "local cultural theories" that I have seen emerging within the HEI during the course of this inquiry. Ethnomethodological methods demand that I do not focus on the interaction alone but also attempt to determine what these actions mean by looking at the interactions through a 'cultural lens' which is in turn determined by the existing ICT culture at the HEI. This will include an analysis of the symbols and rituals created by the participants for the express purpose of structuring their interaction (LeCompte & Preissle, 1993:131). Structured *ethnomethodological direct*

observation as conceptualised by Henning (2003) and conversation analysis (Flick, 1998; Alvesson & Sköldberg, 2000) are two of the methodologies used for this purpose in this inquiry.

Ethnomethodological observation is used to find out how participants in this inquiry utilise the mental and physical tools of ICT and how they structure ways to construct meaning of this interaction in their lives as academics at the HEI. This includes the analysis of their talk with a view to exposing the underlying structures and sequences of this talk but also includes the analysis of actions of participants within the educational ICT setting. This is done in order to expose ‘unspoken’ patterns of social interaction that participants use in order to fit in to the ICT culture at the HEI. The context in which these actions take place will also be noted.

There are some tacit rules that govern the use of ICT within the HEI and in most cases interaction develops according to these rules. I think here of the example of management at the HEI expecting academics at all levels to begin using the tools of ICT in their teaching. A “minimum presence” is expected of teaching staff and in order to fall into a pattern of accepted behaviour, and to try to structure their lives within the ICT community, lecturers have adopted various strategies to make meaning of their situation. Some have adopted ICT without question and some have been silenced by the majority and now find meaning in consensus without challenge. Deviations from this are evident in those lecturers who reject ICT on the one hand and also in those on the other hand who “go the extra mile” and flourish within this new culture. It is these deviations that lead to an emerging social order that is produced, and made recognisable in and through the practical actions of lecturers within the HEI. The purpose of the ethnomethodological work within the broader design of this inquiry would thus be to demonstrate how tacitly ruled behaviour influences the emerging epistemologies and pedagogies of lecturers at the HEI. I argue further that these behaviours sustain other actions and have definite consequences for lecturers within the ICT community.

The structures that lecturers create within the ICT community within the HEI are ordered and there are ‘everyday’ reasons behind this order (Henning *et al.*,

2004:95). What lecturers say and do during interaction and in the 'construction of meaning' may be shaped by the conventions of how they interact. Observing the interaction, however, is not enough and a thorough knowledge of the context within which the interaction is taking place is essential for me as ethnomethodologist. The importance of observing the interaction in an ethnomethodological inquiry cannot, therefore, be underestimated.

Henning et al. (2004:95) note the developments in discursive psychology from conversation analysis to discourse analysis (see also Flick, 1998:21) and the influence of discourse analysis within the realm of qualitative data design issues. In this inquiry I have, however, concentrated more heavily on narrative methods. There are some characteristics that narrative analysis of data and discourse analysis share and narrative analysis can actually be seen as a specialised form of discourse analysis. In this inquiry, narrative analysis is used to find the way in which lecturers at the HEI make sense of their interaction with the tools of ICT and how they represent this in story form. The next section, therefore, highlights narrative analysis as used in this inquiry.

2.3.3 The discursive tradition: narrative inquiry

Carefully crafted interview questions have often led to participants in other inquiries responding with lengthy accounts or long stories that seemingly have little to do with the question. Some researchers (myself included) initially interpreted these stories as digressions but I have eventually come to realise that participants were merely "resisting the researchers' efforts to fragment their experiences into thematic (codable) categories" (Riessman, 2002:695). This could also be seen as an attempt by the researcher to, in effect, control meaning. Although there is disagreement about what constitutes narrative, most researchers point to the ubiquity of narrative in Western societies and concur that all forms of narrative share the fundamental interest in making sense of experience, or what Chase (2003:273) calls "the interest in constructing and communicating meaning." The difference between the standard practice of research interviewing on the one hand

and the “life world of naturally occurring conversation and social interaction” on the other has become apparent (Riessman, 2002:696).

Other authors including Clandinin and Connelly (2000:17) are also of the opinion that “life is filled with narrative fragments” that may be enacted and reflected upon in “storied moments of time and space.” Narrative is now recognised as one of the most basic ways that people organise their understanding of the world. It is used by many as a means of making sense of past experiences and sharing it with others. Narrative inquiry can also be easily used in conjunction with other forms of qualitative research (Riessman, 2002:706).

There is an increasing awareness and recognition of the usefulness and importance of narrative analysis as an integral part of doing ethnography (Cortazzi, 2001:384). The subject of narratives is often about something which at some level is of importance to both the narrator and the audience. Cortazzi (2001: 384) notes that “ a careful analysis of the topics, content, style, context, and telling of narratives told by individuals or groups under ethnographic study should, in principle, give researchers access to tellers’ understandings of the meaning of key events in their lives, communities or cultural contexts.” The key event under scrutiny in this inquiry is the change in epistemology and pedagogy within a community of lecturers during first encounters with ICT. It is important to note that this ‘change’ could be highlighted through the analysis of narratives as text (as in Cortazzi’s quote above) or as an interactive process of jointly constructing and interpreting experience with others. Narrative analysis is therefore a potentially useful research tool to complement the use of other ethnographic data collection strategies including interviews and observation as used in this study.

This educational study is a study of ‘experience’ and Clandinin and Connelly (2000:18) also maintain that narrative is the best way of representing and understanding experience. It involves collaboration between myself and participants selected from a cohort of lecturers exposed to ICT, within a defined ‘space’ at a Higher Education Institution, over a period of time, within the social context. I am the inquirer who entered this environment, engaged with the

participants within this environment and concludes this inquiry “in the midst of living and telling, reliving and retelling the stories that make up people’s lives” (Clandinin & Connelly, 2000:20). In the words of these authors, “narrative inquiry is stories lived and told.” Boje (2001:1) claims, however, that a story is merely an account of incidents or events, so in this study narrative is used to add plot and coherence to the storyline.

When used for systematic interpretation of others’ interpretations of events, narrative analysis adds an extra dimension to research if the narratives are accounts of epiphanic moments or significant or meaningful incidents in peoples lives. In this study, each narrative will be an account, version or view of how certain events during the first exposure to ICT has impacted on the practice of selected lecturers. The perspectives of the participants or ‘tellers’ may be exposed by dividing the narrative into the following rough structural categories (Cortazzi, 2001:384):

- an event structure – reports on happenings.
- a description structure – provides background information like time, place, people, and context.
- an evaluation structure – shows the point of telling the narrative, presents speaker’s perspective or judgement.

On the other hand, Clandinin and Connelly (2000:2 & 50), drawing on the work of John Dewey, remind researchers that experience is both personal and social. Lecturer’s at the HEI are individuals and need to be understood as such. They must not, however, only be understood as individuals as they are always part of a larger social context within the HEI. For this reason I have chosen to adopt the thinking of Clandinin and Connelly and their notion of a three-dimensional narrative inquiry space for the construction of the narrative segments in Chapter 5. The three dimensions for analysis (Clandinin & Connelly, 2000:50) are therefore:

- personal and social (interaction)
- past, present and future (continuity)

- the notion of place (situation)

This allows me as researcher to identify elements of temporality along one dimension, the personal and the social along a second dimension, and place along the third dimension. I foresee utilising temporality (past, present and future) as a major feature of the lecturers' narrative segments derived from the transcripts of the narrative interviews in order to identify stagnant, emerging or changing epistemologies and pedagogies of these lecturers over time.

By collecting and analysing a number of narratives from the participants in this way I will attempt to accurately portray the teller's perspectives on themes or processes relating to how their exposure to ICT has (possibly) led to change in their practice. This analysis, however, will not be sufficient and account will also have to be taken of cultural conventions and contexts, as well as speakers' motive and intentions (Cortazzi, 2001:385).

2.4 METHODS OF DATA COLLECTION USED IN THIS STUDY

In this section I focus on the grounded theory methods that I employ for the collection of ethnographic data, the role of the narrative interview in this inquiry, and ethnomethodological methods of data collection that highlight the role of form in talk and interaction during the interviews.

2.4.1 Grounded theory methods in ethnography

Grounded theory studies have evolved to become a common feature of modern qualitative research. They consist of flexible strategies for collecting and analysing data that can assist ethnographers to conduct disciplined fieldwork and create incisive analysis (Charmaz & Mitchell, 2001:160). Grounded theory is also adopted and customised by many ethnographers, as I do in this inquiry, in order to increase the logical intuitiveness of their studies. The main authors in contemporary qualitative research have not up to now agreed upon the

methodology for grounded theory studies and this difference of opinion has been noted by a number of authors including Charmaz and Mitchell (2001:160) and Henning et al. (2004:47). A brief history of developments within this movement will now follow.

In the mid sixties, a time dominated by objectivist, theory-driven research, Anselm Strauss introduced the Chicago School pragmatist, symbolic interactionist and field research traditions to grounded theory (as documented in Charmaz & Mitchell, 2001:160). Barney Glaser's background and training in survey research, on the other hand, emphasised rigorous methods and empiricism. The early combined work of these two authors (Glaser & Strauss, 1967) was, therefore, typified by extensive field research. Since then grounded theory and ethnographic methods have developed and diverged but it is agreed that these approaches can still complement each another. Grounded theory methods make it possible to streamline the fieldwork and enhance theoretical interpretation during ethnographic research. The use of ethnographic methods, on the other hand, can prevent grounded theory studies from becoming what Charmaz and Mitchell (2001:160) refer to as "quick and dirty qualitative research."

Early reports on grounded theory were seen to offer 'open-ended guidelines' to qualitative researchers with more recent authors such as Strauss and Corbin (1990) and Creswell (1998) exposing what Charmaz and Mitchell (2001:160) refer to as a mechanistic turn in these authors' understanding of the topic. This entails more prescriptive guidelines and procedures which, in my mind, reduce grounded theory methods to rigid conventions that could have an effect on the overall research process. In this regard, Charmaz and Mitchell (2001:161) stress that "grounded theory should not become the rules of qualitative method." I see ethnographic methods as the important features that will bring the researcher close to the studied phenomenon and not only the development of methodological tools. This must not be confused with what I previously referred to as 'methodological theory' (Carspecken, 1996 & 2001) which is essential to the notion that research can expose social phenomena that 'really exist, are mostly valid, and are not simply 'interpretations' (Carspecken, 2001:5).

Charmaz and Mitchell (2001:160) provide me as researcher with an approach to grounded theory that in their own words “builds upon a symbolic interactionist theoretical perspective and constructivist methods that assume the existence of multiple realities, the mutual creation of knowledge by researchers and research participants, and aims to provide an understanding of the studied world.” My own personal constructivist approach to grounded theory complements the symbolic interactionist perspective in that they both emphasise the study of how action and meaning are constructed. Conventional methods of interviewing, however, did not provide me with enough viable options with which to record the multiple realities of lecturers and hence the incorporation of the narrative interview to supplement the ethnographic methods in this inquiry.

2.4.2 The narrative interview

Chase (2003:273) points out that despite the significance of narrative, qualitative researchers seldom focus specifically on “eliciting narratives in the interview situation” and ignore the narrative nature of the discourse produced during the interviews. Conventional methods of sociological interviewing can be seen to suppress or hide respondent’s stories and even conventional methods of interpretation can ignore the relevance of these stories (Riessman, 2002:695). For this reason, the in depth interviews conducted in this study are specifically aimed at eliciting various *life stories* from the participants. Chase (2003:274) sees these life stories as narratives that have some deep and significant meaning to the interviewee. The major contribution of the interviews and narrative analysis in this study can, therefore, be seen as a study of general social phenomena as embodied in the specific life stories of the participants. The technique of inviting *stories* rather than *reports* during the interviews, however, remains a priority in this study.

In the interviews conducted in this study it is my task as interviewer to invite participants to tell their stories and to take responsibility for the meaning of their words. Chase (2003:274) suggests “shifting the weight of responsibility to the

other” in such a way that they willingly embrace it and tell their story. In contrast, a report is typically elicited by the interviewer and the task of making meaning of the report is also left up to the interviewer. Getting participants to tell their stories, and not to merely provide reports (Riessman, 2002:696), lies in the questions we ask and the orientation to others embedded in these questions (Chase, 2003:275). But by asking questions phrased in everyday language, by focussing on participants’ experiences, thoughts and feelings, and by constructing relationships with participants, interviewers may still invite reports rather than stories. Shifting the responsibility of making meaning of stories back to the participants in this study will be done as follows:

- By asking questions that direct participants to their own life experiences and not to my own research interest. This lies in the orientation of the question and not the wording.
- By not asking heavily weighted sociological questions. These questions tend to ‘pull’ participants away from their experiences. By asking sociological questions I would get what I asked for and not what I am most interested in hearing. These questions distract the interviewer from the deeper and broader life story the interviewee has to tell (Chase, 2003:281).
- By asking a variety of questions that should act as a catalyst to arouse the desire of the interviewee to embrace the responsibility of providing the story. This entails having some sense of the broad parameters of the participant’s story in order to eventually be able to ask the specific question (pivotal question) that will elicit a response. Due to the ethnographic nature of this study I have been in close contact with the participants for an extended period and the broad parameters of each participants story is known to me.
- By reiterating the invitation to tell the story throughout the interview by asking questions that will fill in ‘gaps’ or encourage the participant to explain contradictory feelings in more detail.
- By attending to ‘hidden’ stories and themes by inviting participants to elaborate further in certain cases.

- By taking note of, and responding to gaps, silences and contradictions, and eliciting fuller narration of the themes within the story I will continually shift the narrative responsibility back to the participant.

In order to develop the narrative portraits of lecturers engaging with ICT, *individual interviews* will be conducted with each of the nine participants. These interviews will include questions regarding their 'lived experience' during their engagement. The main purpose of these interviews will be to obtain narrative portrait data but conversation analysis data (Ten Have, 1999) will also be collected providing a slight ethnomethodological perspective to the inquiry.

2.4.3 Ethnomethodological methods of data collection

The sole purpose of this kind of analysis is to highlight the role of form in talk and other interaction. In general ethnomethodological analysis, which in this case is conducted with data from ethnomethodological observation, the background of talk and action is analysed. Henning *et al.* (2004:126) concur that this is not much different to working with field notes to observation generally but focuses on finding structure in the conduct of participants. The talk during interviews will be scrutinised for markers or indicators of structures and sequences. These markers are similar to those utilised in conversation analysis but are now applied to more than just talk. Once markers have been identified and labelled I will look for overall structures and patterns that may add to the other worked data arising from this inquiry.

2.5 DATA ANALYSIS

In this inquiry, some data will be used to *compose the narrative portraits* of the lecturers' identities during their engagement with ICT. In addition to the 'content' data, some of the recorded data will be used for other analytical purposes as well – the aim being to conduct analysis beyond the surface meaning. These other methods of analysis include grounded theory content analysis, ethnomethodological analysis, and narrative analysis.

Line-by-line coding of interview transcripts during grounded theory content analysis prompt me not only to study the interviews in greater detail, but also to examine “how well the codes capture participants implied and explicit meanings (Charmaz, 2002:684). In line with the notions of *action* and *activity* as propounded in Activity Theory, I have also adopted Kathy Charmaz’s idea of keeping the codes ‘active’ by using words in the codes that imply action.

“Action codes show what is happening, what people are doing. These codes move the researcher away from topics, and if they address structure, they reveal how it is constructed through action. I try to make the action in the data visible by looking at the data as action. Hence I use terms such as going, making, having and seeing. Using action codes helps the researcher to remain specific and not to take leaps of fancy. In addition, action codes help the grounded theorist to compare data from different people about similar processes, data from the same individuals at different times during the course or trajectory of the studied experience...” (Charmaz, 2002:685).

An added benefit of using this method of grounded theory content analysis is that the codes can easily be mapped onto the expanded Activity Theory triangle for further analysis using Activity Theory as an analytical tool to point out tensions within the activity system at the HEI as described in Chapter 3.

Next, all data will be analysed for its discourses. Dominant discourses in the data will be captured (Henning *et al.*, 2004:103) and, secondly, selected data from the interviews will be analysed using conversation analytic methods. The aim here is to expose ethnomethodological elements of the lecturers’ lived experience during the period of engagement with ICT that may not necessarily feature in the other forms of analysis. Ethnomethodology is concerned with how members of specific communities within specific situations come to understand things and events of concern to them and, thereby, realise them as objects of everyday life. Henning *et al.* (2004:44) describe this as ‘common sense ways of seeing social patterns’ and

stress the importance of how these patterns are utilised in the construction of everyday life. Unfortunately, the conversation analysis component of ethnomethodology is not yet well served by software (Fielding, 2001:459) and in this inquiry segments of the interview transcripts will be identified as instances of routines that recur in talk and will be coded manually.

All data analysis procedures in this inquiry will search for elements of the data that pertain to specifically to narrative. Thus, the ethnographic data, for example, will reflect the 'life world' of lecturers as identified from their observed behaviour, practices and activities but will also add to the development of the narrative portraits of the lecturers that will show how they construct their 'preferred identities' during their engagement with ICT. Narrative analysis, therefore, features as the common denominator in the process of data analysis in this inquiry.

Cortazzi (2001) provides four major reasons for doing narrative analysis as part of an ethnography. These four reasons can be seen as key elements of a rationale for using narrative analysis in this study.

- Narratives share the meaning of experience
- Narratives involve the representation of voice
- Narratives give higher public profiles to human qualities
- Narrative sees ethnographic research itself as a story

All of the discussion in the interview situation is not narrative and may include questions and answers about demographic facts, listings, chronicles and other non-narrative forms of discourse (Riessman, 2002:698). The selection of narrative segments for analysis is sometimes made easier by the use of *entrance* and *exit talk* by the participant (for example, "let me clarify that with an example..." or "and that is how it happened..."). Stories in the research interviews in this study are rarely so clearly bounded and will be analysed with transcriptions that include paralinguistic utterances ("uhms"), interruptions and other subtle features of interaction. The choice of segments to analyse and putting boundaries around them are "interpretive acts that are shaped in major ways by the investigators

theoretical interests (Riessman, 2002:699). Deciding on the beginning and end of the narrative is also a complex interpretive task. Defining the boundaries will eventually be strongly influenced by my own evolving understandings, disciplinary preferences and interview questions. Detailed transcripts of speech will enable the reader to see the stories apart from my analysis, allowing the storyteller and analyst to remain separate.

In this study, narratives will be analysed performatively as proposed by Langellier in 1989 (as cited by Riessman, 2002:701). This is only a single point of entry with other investigators proposing the analysing of narratives textually, conversationally, culturally, or politically/historically. I will emphasise the performative approach in this study because “a story involves story-telling, which is a reciprocal event between the story-teller and the interviewer” (Riessman, 2002:701). The story-tellers’ “preferred identity” will be revealed in the stories they tell. The identity of the story-teller is situated and accomplished in social interaction and in no way should be seen as inauthentic. By viewing all of the above-motivated factors as part of the three-dimensional narrative inquiry space as proposed by Clandinin and Connelly (see paragraph 2.3.3 above) I aim in this analysis to derive interpretations and write research texts in the form of narrative segments that address personal and social issues while also addressing temporal issues by not only looking at the event but also to its past, present and future (Clandinin & Connelly, 2000:50).

In this section I have offered an analytic solution to working with interview transcripts that do not require fragmentation. I have also focused on the personal narrative and emphasised the performative dimension that leads to the “preferred identity” that participants put forward in their life stories. These narrative segments will then be contrasted with findings originating from data that will be mapped onto the expanded Activity Theory triangle (as fully described in Chapter 3) and the tensions between the various components of the activity system will be exposed. These tensions, I argue, are the driving forces in the activity system and hold the answers to why lecturers change their theories of knowledge and teaching through engagement with the tools of ICT.

Furthermore, in this section and throughout this inquiry, I have attempted to design for optimal interpretation and validity but because of the nature of the inquiry some readers will surely question the believability, trustworthiness and validity of the evidence that is derived from the data. I now provide a short discussion of contemporary views of validity or what I prefer to call the 'value of the inquiry'.

2.6 JUDGING THE VALUE OF THE INQUIRY

“Like many scientific constructs validity is used by researchers from differing traditions to refer to somewhat different things” (LeCompte & Preissle, 1993:322). Qualitative research is also inherently multi-method in focus (Flick, 1998:229). The combination of multi-methodological practices, empirical materials and perspectives can be best understood as a strategy that adds rigor, breadth, complexity, richness and depth to this inquiry (Flick, 1998:231; Denzin & Lincoln, 2003:8). The multi-methodological approach implemented in this inquiry, furthermore, reflects an attempt to secure an in-depth understanding of the changing epistemologies and pedagogies of lecturers engaging with ICT at the HEI. By arguing the choice of methods used in this inquiry and by stating the methodology of the design (in other words, what the design genre is and how it relates to data collection methods) I have already laid the foundation for the discussion on validity that follows. It is in my portrayal of the design phase (in this Chapter) that I as researcher have already argued why this inquiry will yield believable, trustworthy or valid evidence (Henning *et al.*, 2004:146). Moreover, the way in which the evidence has been ‘captured’ in both data collection and data analysis procedures further augments the evidence in this inquiry as reliable and clear. I have drawn freely from a number of genres, often breaking the boundaries of each and providing different ‘takes’ on the same topic. Richardson (2003:517) refers to this as a “postmodernist deconstruction of triangulation.”

2.6.1 From triangulation to crystallisation

Many authors provide perspectives on triangulation as method for the purpose of validating results obtained with a variety of individual methods (see for example Flick, 1998:229) and for this reason I will only provide a brief introduction here. Flick acknowledges Denzins' (1978) emphasis on the triangulation of method, investigator triangulation, theory triangulation, and data triangulation as the soundest strategy of theory construction and an important part of the design process (see also Janesick, 2003:66). The shifting focus towards enrichment and completion of knowledge while questioning the limited potentials of individual methods is also evident in Flicks summary of triangulation. The use of multiple methods and triangulation of data in this inquiry reflects an attempt to secure an in-depth understanding of the phenomenon in question (lecturers changing theories of knowledge and teaching during engagement with the tools of ICT) but I concur with other authors that objective reality can never really be captured (Flick, 1998; Denzin & Lincoln, 2003:8). We can only, in my opinion, know something through its various representations. Flick (1998:231) sees triangulation not as a tool or strategy that can be used to 'validate' such representations but rather as an alternative to validation in a multi-method inquiry which increases scope, depth and consistency in methodological proceedings. Other authors support this view (Richardson, 2003:517; Janesick, 2003:67) but look at triangulation from a slightly different perspective.

Richardson (2003:517) asserts that the central image for qualitative inquiry should be the crystal, not the triangle. Janesick (2003:67) supports Richardson's 1994 idea of crystallisation as a better lens through which to view qualitative research designs and their components. The many facets of the social world are represented by the image of the crystal that replaces the triangle. Mixed genre texts, like the crystal, are seen to have more than 3 sides (Denzin & Lincoln, 2003:8). Richardson proposes that that triangle – a rigid, fixed, two-dimensional object – be replaced with the crystal which combines "symmetry and substance with an infinite variety of shapes, substances, transmutations,

multidimensionalities, and angles of approach” (Richardson, 2003:517). What we see when we view a crystal depends on how we look at it.

“Crystallisation, without losing structure, deconstructs the traditional idea of ‘validity’ (we feel how there is no single truth, we see how texts validate themselves), and crystallisation provides us with a deepened, complex, thoroughly partial understanding of the topic. Paradoxically, we know more and doubt what we know. Ingeniously, we know there is always more to know.” (Richardson, 2003:518)

Crystals are prisms that reflect externalities and refract within themselves creating different colours and patterns casting off in different directions. In the crystallization process I as researcher approach the individual narratives in this inquiry from different points of view. Viewed as what Denzin and Lincoln (2003:8) refer to as a “crystalline form,” triangulation as a form of, or alternative to, validity can be extended in this inquiry to display multiple, refracted realities simultaneously. Readers of this thesis are, therefore, invited to explore competing visions of the narrative segments and to become immersed in the ‘new realities’ that emerge regarding the changing epistemologies and pedagogies of the lecturers engaging with ICT. The preceding ideas, however, seem to be far removed from the more conventional discourse that once emerged within the social sciences.

2.6.2 From truth value to a ‘new’ approach to validity

The discourse that guided my earlier research was based on Lincoln and Guba’s (1985) ‘truth values’ which incorporated the ordinary language terms “trustworthiness, credibility, dependability and confirmability” (see Lautenbach, 2000:51). In an article titled “rigor in qualitative research: the assessment of trustworthiness” Krefting (1991) provides a detailed overview of these terms. These are terms that Steinar Kvale (1983; 1996; 2002) acknowledges in his work but shows no record of adopting, preferring rather to assume a more ‘radical’ stance. Henning et al. (2004:147) provide a refreshing interpretation of what Kvale

(2002) refers to as the 'trinity' of reliability, validity and generalisability and further elaborate on how this trinity has evolved to include certain 'new wave' interpretations. Building precision into the design of an inquiry is one such example. *Good craftsmanship, honest communication* and *actions* assist in rating research as good scholarship. Basically research findings have to correspond with reality but there are two other philosophical notions of truth value that need to be considered. These are *coherence* and *pragmatic utility*. Coherence refers to the *internal logic and consistency* of a statement. Pragmatic truth refers to the *consequences of knowledge* (Henning et al., 2004:147). This implies that when the researcher contemplates truth value the three criteria mentioned above should be integrated in the process.

In this inquiry the medium of discourse is language. It is in the narrative segments and in the discourse communities that have evolved during this inquiry where the value of the research may be determined. Generalisation and the interpretation of meaning that used to be the fashionable way of doing research has made way in this inquiry for where "knowledge is no longer the mere reflection of an objective reality, but the construction of a social reality" (Kvale, 2002:307). The usefulness of the inquiry is, therefore, based on constructed knowledge and becomes the main focus without ignoring the importance of synchronising methodology and methods in order to ensure coherence. This, together with a cohesive theoretical base, is what Kvale refers to as 'good craft'. Henning et al. (2004:151) take this a few steps further by emphasising craftsmanship with precision, care and accountability, open communication throughout the inquiry and the role of "immersing the process in the conversations of the discourse community".

In order to judge the validity of this inquiry I, therefore, adopt the abovementioned idea of a trio of validity partners as proposed by Henning et al. (2004:151). The concepts of reliability and generalisability as propounded by Kvale (2002) have not been left out and are merely subsumed by the trio. Precision of procedures and documentation as carried out in the inquiry satisfy the criterion of reliability and the internal logic and cohesion of the inquiry should provide enough to argue the generalisability of the findings in similar contexts. This may not, however, be

enough to satisfy the critical ethnographers in the discourse community and hence the following elaboration.

2.6.3 Validity in critical ethnography

A series of norms for the writing up of a critical ethnography should, firstly, include the four nonnegotiable journalistic norms of accuracy, nonmaleficence, the right to know, and making one moral position public (Denzin, 2003:465). In this inquiry the 'moral tales' arising from the interaction with the participants is not meant to cause harm to those lecturers who have been oppressed by the dominant ICT culture within the HEI (the principle of nonmaleficence). Their identities are protected and the narrative segments arising from the interviews are factually and fictionally correct. I have attempted as far as possible to take cognisance of the readers' right to know and balanced this against the principle of nonmaleficence. I have, furthermore attempted to show that all interpretations possess depth, detail, emotionality, nuance and coherence (Denzin, 2003:466). The reader may, therefore, form a critical interpretive consciousness by simply reading the carefully crafted narratives.

The narrative segments arising from this inquiry are honest accounts of reality that explore the moral truths of the participants and sometimes expose the unrepresentable within the ICT culture at the HEI. By stirring up these issues and presenting them in narrative form they become a part of the larger story of the lecturers' changing theories of knowledge and teaching that draw the reader into the many experiences of daily life within the educational ICT community. These tales of experience then serve to provide the reflexive reader with the opportunity to discover moral truths about themselves within the broader framework of the multiple truths that are evident in the social world (Denzin, 2003:467). By stimulating critical discourse within the ICT community this inquiry has the potential to enable transformations at the HEI and within the private spheres of everyday life.

2.6.4 Validity of the narrative segments

According to Atkinson (2002:131) the 'life story' interview has its own standards of reliability and validity and can be determined to be reliable or valid on its own merits. Research methods based primarily on subjectivity, flexibility, and inevitable human variables must have their own standards of judgement. "A life story is first and foremost a text, to be read, understood and interpreted on its own merit and in its own way" (Atkinson, 2002:131). In the approach to narrative analysis utilised in this study, the perspectives of both the researcher and the participant will come under scrutiny. Riessman (2002:704) maintains that researchers working from the performative perspective approach the issue of *truth* differently and verification of facts should not be the focus. In this inquiry I will attempt to understand the changing meanings of events for the individuals involved (meaning-making units of discourse), and how they are located within the history and ICT culture within the Faculty. This is of interest to me because narrators interpret the past in stories, rather than interpret the past as it really was (Riessman, 2002:705).

It must be noted that story-tellers will always re-story their past, based on their making sense of events and experiences in their lives. New meanings will evolve due to the influence of subsequent life events. When participants in this study start to make sense of events and experiences in their past, and how they relate to their current 'selves', they will change the meanings of these experiences. Stories will evolve due to the shifting importance of certain events, the discovery of previously unknown connections, and the repositioning of characters in the stories. By identifying 'turning points' in the stories – "moments where the narrator signifies a radical shift in the expected course of a life" (Riessman, 2002:705) – I will illustrate how identities can shift over time. I like to refer to these moments in the interview situation as "aha" moments. These moments or 'turning points' can fundamentally change the meaning of past experiences and consequently the individuals' identity in the story. The past is given new significance as participants move out of the old relationship and construct new identities in the story.

In the presentation of narrative segments I have adopted an approach that can be seen as 'methodological holism' where I focus not only on the participant but also the process. When reporting on findings I attempt to honour participants words and stories as a whole and see them as part of a larger figuration that is narratable (worth telling), authentic (real people and real stories), and believable. The use of this knowledge and the actions that ultimately stem from this inquiry are also issues raised by Lincoln (2002:343) that capture a move towards ethics as a further criterion for quality. For this reason, a discussion on the ethics of the research process in this inquiry now follows.

2.7 ETHICAL ISSUES

The search for justification in an inquiry of this nature has the potential to lead me as researcher farther and farther from what Lincoln and Guba (2003:281) call the 'heart of morality'. The ethnographic slant to the inquiry is, for example, more likely to leave participants (the lecturers in this case) exposed to exploitation (Fine, Weis, Weseen & Wong, 2003:167). As a fellow lecturer, working among them, the greater intimacy has the potential to lead to greater 'dangers' or ethical concerns. But, despite the intimacy of interviewing and observing colleagues within an Education Faculty, most of the participants still both recognised and eagerly exploited the power inequalities within the ICT community. They recognised my role as researcher, and the possibility that I could take their individual stories and various concerns to policy makers and HEI management, in ways that they themselves could not. By enabling lecturers to personally come to terms with, and share their everyday experiences with ICT in education, I have not reduced this social matter to simple financial and administrative issues for the HEI management, but attempted as far as possible to try to understand the ways that the *ethical* intersects both the *interpersonal* and the *epistemological* in order to justify a form of valid or authentic knowing (Murphy & Dingwall, 2001:339).

Like all research that involves human participants this inquiry raises significant ethical concerns and obligations. These obligations include my basic

responsibility to protect lecturers from harm, even where they participate freely with no cares about the risks they are taking, and to protect their individual rights and interests. Ethical concerns are also complex and for this reason I have attempted not to stick to a prescriptive list of requirements in order to fulfil them even though in the social sciences, codes of ethics for professional and academic associations are the conventional format for moral principles (Christians, 2003:217). I have, rather, addressed a number of ethical issues, in no particular order, that subsume the four main guidelines with overlapping emphasis from a number of ethical codes, namely; *informed consent*, *deception*, *privacy and confidentiality*, and *accuracy*. I have adopted this approach in order to present these issues in the form of my own, loosely structured personal narrative on how I have come to terms with conflicting and emerging literature on ethical issues. Hence my story...

A matter that had to be considered early in the inquiry was whether or not the proposed research should, in fact, be done. In order to do this I had to first determine that the potential benefits of the research would, in fact, outweigh the potential harm that it may cause. In this regard I acknowledge that the notion of 'harm' as interpreted by many ethics committees has become somewhat narrow (see Guba & Lincoln, 1989:121; Cheek, 2003:95) and concur that the concept 'harm' requires an expanded definition. For this reason I not only place emphasis on anonymity of lecturers and confidentiality of data throughout this inquiry, but focus on the broader picture including possible effects of the research on lecturers at the HEI and the actions arising from these effects. Taking the notion of harm further I have, therefore, undertaken in this inquiry to take cognisance of the 'possible loss of dignity', the 'loss of individual autonomy', and the 'loss of self esteem' that may occur if lecturers feel abused and objectified in any way, and in doing so have added to the "expanded definition of harm" (Guba & Lincoln, 1989). In this way I have gone beyond merely trying to get the research approved by the institutional ethical committee by placing great emphasis on the 'quality' of the qualitative process.

The work of Yvonna Lincoln (2002) was instrumental in the formation of my personal approach to ethics, particularly her view that the quality of an inquiry will contribute to ethical practice. Lincoln (2002) mentions “emerging criteria” for quality in qualitative research and argues that “nearly all emerging criteria are relational, that is they recognize and validate relationships between the inquirer and those who participate in the inquiry.” This goes beyond informed consent and shared decision-making and, as previously mentioned, has made me as researcher look beyond prescriptive approaches to ethical issues. From this perspective, therefore, it is my opinion that the quality of the inquiry directly influences the ethics of the research. Quality of method and process will, in other words, ensure a healthy, professional and trusting relationship between the lecturers at the HEI and me as researcher. The standards for quality in this inquiry can thus be seen as standards for ethics that guide the research process (compare Lincoln, 2002).

By taking seriously lives that are loaded with multiple interpretations and grounded in cultural complexity (Denzin, 1989:81) I have further allowed for what Christians (2003:228) terms *interpretive sufficiency*. This has been achieved by representing multiple voices, enhancing moral discernment and promoting social transformation within the discourse community. The narratives derived from the inquiry also possess the depth, detail, emotionality, nuances and coherence that Denzin (1997:283) prescribes in order for the reader to develop a *critical consciousness*.

2.8 SUMMARY

This Chapter initially elaborates on the choice of the term *genre of design* as used in this study as opposed to *design type*. The design logic is argued and a reflection on the role of the researcher is integrated throughout the Chapter.

An account of the development of the design genre as it unfolded during a period of action research is described in this Chapter in the form of a personal story or narrative. This narrative describes how the inquiry progressed through a number

of stages that action researchers would almost unanimously describe as 'cycles' and is followed by a brief outline of action research in general. The specific genre of design for the adjusted inquiry is then described as a triangular hybrid that includes components of the ethnographic, the ethnomethodological and the discursive tradition of qualitative inquiry. These three components in this hybrid of methodologies are then described in more detail highlighting narrative analysis as a potentially useful research tool to complement the use of other data collection strategies including interviews and ethnographic observation as used in this inquiry.

Methods of data collection are then described including the use of *individual narrative interviews* that will be conducted with each of the 9 participants in order to develop the narrative portraits of lecturers engaging with ICT. Conversation analysis data also provides a slight ethnomethodological perspective to the inquiry. This is followed by a brief mention of how these narrative segments, and data from other analysis processes, will finally be mapped onto the expanded Activity Theory triangle (as fully described in Chapter 3) and how the tensions between the various components of the activity system will be exposed (Chapter 5). These tensions are described as the driving forces in the activity system that hold the answer to the question why lecturers change their theories of knowledge and teaching during engagement with the tools of ICT.

The Chapter ends with a short discussion of contemporary views of validity, or what I prefer to call the 'value of the inquiry', and a description of ethics as a further criterion for quality in the research process.

Chapter 3 now provides the theoretical underpinnings of this inquiry. The divergence of ideas around emergent pedagogies of ICT in education is highlighted and pedagogical concepts related to sociocultural theory and Activity Theory are presented as the foundation of this thesis. A brief exploration of these concepts is used in the Chapter to establish theoretical markers for a clearer understanding of emerging (or stagnant) epistemologies and pedagogies of the lecturers at the HEI engaging with ICT.

CHAPTER 3

THEORIES OF TOOL MEDIATION IN CONTEXT

3.1 INTRODUCTION: EMERGING PEDAGOGIES AND EPISTEMOLOGIES

In this section of the thesis I argue that the assumptions that underlie the notion of 'emerging pedagogies and epistemologies of lecturers at the HEI' need to be problematised, especially from the viewpoint of the divergence of ideas around emergent pedagogies of ICT in education (Preece, 2003, Duval, 2003). The fact that there is as yet no coherent set of established pedagogies begs for continued questioning of what may be adopted or even 'fast-tracked' as 'pedagogies' in a rapidly evolving medium of learning and teaching. Pedagogical concepts, with a social, cognitive slant, most of which have in some way been spawned by the cultural historical theory of Vygotsky and other scholars in this tradition (Vygotsky, 1978; Kozulin, 1992; Wertsch, 1991) have emerged as useful as scaffolds for theorizing about ICT in education. These concepts include "distributed cognition" (Salomon, 1999), "shared learning" (Kaptelinin, 1996; Cuthell, 2002), "situated cognition" (Brown, Collins & Duguid, 1989; Lave & Wenger, 1991; Chaiklin & Lave, 1993), "communities of learning" (Brown, 1994), and also "communities of practice" (Lave & Wenger, 1991; Wenger 1998).

Henning, Maseko and Diseko (2004) identify two important features of learning that can be derived from the above-mentioned concepts, namely that lecturers "learn from the multiple *extensions of their communication*" and that lecturers will "learn best when their "knowledge is *situated in a context.*" Applying these features to this inquiry, the first is the notion that lecturers "learn from the multiple *extensions of their communication*, with their knowledge often being lodged in a distribution of spaces, and with their individual minds as a type of clearing house on the one hand, and a networked communication and information retrieval system on the other hand'. The second concept is that lecturers will learn best when their "knowledge is *situated in a context*, be it a physical and cultural context, or an established theoretical one" (Henning, Maseko & Diseko, 2004). Both

situatedness and distribution are emphasised in these two features of learning and they may be viewed as points on a matrix, or as intersecting lines on a line graph.

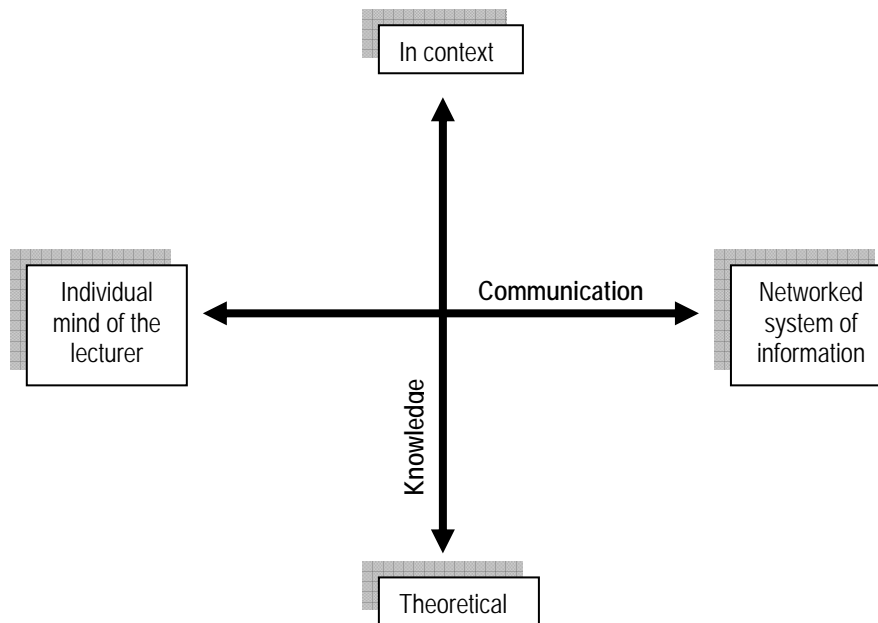


Figure 3.1: Features of lecturers' learning at the HEI

In this Chapter I argue that during the period of initial engagement with ICT in their teaching, lecturers at the HEI have to take cognisance of the features of learning depicted in Figure 3.1: they have to acknowledge that learning opportunities that arise from engagement with ICT are by their very nature dependent on lecturers' understanding, even intuitively, of the notion that "knowledge is not lodged in individual minds, but is 'reigned in' by the understanding knower from a variety of platforms or sound knowledge bases that the individual learner has assembled through the mediation of others" (Henning, Maseko & Diseko, 2004). Gee (2004:38) argues that learning cannot only be seen as a mental 'thing' but must be seen as "a type of social interaction in which knowledge is distributed across people and their tools and technologies, dispersed at various sites, and stored in links among people, their minds and bodies, and specific affinity groups" like a

community of practice (as quoted by Rogers, 2004:xiii). Gee's view of learning allows for an integration of work in critical discourse analysis, situated cognition, sociocultural approaches to language and literacy, and also in particular forms of social theory. When learning is seen as *changing patterns of participation in specific social practices* (Lave & Wenger, 1991; Rogoff, 1990; Wertsch, 1991; Gee, 2004:38) lecturers at the HEI can be easily classified according to roles or positions that are set up within the very specific social context. Using Gee's terms (2004:38) lecturers could, for example, be classified as *insiders*, *outsiders*, or *marginal* with respect to the social group of lecturers engaging with the tools of ICT. In this way, lecturers develop *socially situated identities* that may also be subject to change as they change patterns of participation due to engagement with the tools of ICT within the Faculty. I argue that these changes in socially constructed identities are indicative of changes in the way lecturers adapt their theories of knowledge and teaching in general when engaging with the tools of ICT and can best be exposed through the methodologies embraced in this inquiry.

Thus far, I have only briefly mentioned critical discourse analysis, situated cognition, and sociocultural theory as elements of the theory underpinning this inquiry. To expand further on this it is my contention that learning opportunities only become learning 'events' for lecturers (and similarly also for the students) when they fully engage with the activity systems including the tools of ICT within the HEI. I suggest that these lecturers can only make meaning of their initial engagement with ICT and the subsequent changes in their ways of teaching, and thinking about teaching in general, when they see the broader picture of how engagement with ICT does not only take place on a physical or material level, but is also strongly related to their geographical, historical and cultural context (and coupled with that their epistemologies-in-change). This emphasises a possible tension between *distribution* and *situatedness*: the lecturer can, firstly, draw on various knowledge sources from within the field of ICT and, secondly, this same lecturer can personally contextualise and thus individualise a learning event within the specific social, geographical and historical contexts of the ICT community at the HEI. In this inquiry it would also, therefore, be inappropriate to ignore the cultural, historical and social diversity of lecturers within the HEI from different

backgrounds. With this realisation comes the need to consider the important role that context plays in learning and mediation. The term “context” is here used to indicate the variety of contextual factors that I have just referred to.

The literature on educational theory amply describes context as mediational tool and also includes the emergence of concepts I have already briefly mentioned like situated learning, distributed learning and Activity Theory (Vygotsky, 1978, 1992; Engeström, 1987, 1999; Collins & Duguid, 1989; Kozulin 1990; Chaiklin & Lave 1993; Wertsch 1991; Lave & Wenger, 1991; Kaptelinin, 1996; Nardi, 1996; Wenger, 1998; Brown, 2000). The concept of context as “pragmatic meaning creator” as proposed by Rogoff (1990) has its roots in Vygotskys’ social constructivist views on learning and has to be considered in this inquiry in which lecturers are actively engaging with the tools of ICT. I argue further that each of these lecturers is ‘enveloped’ within their immediate cultural, historical, social, and also educational contexts and will want to remain there as long as they are allowed to individualise their ICT experience and to develop and evolve along unique and individual paths. The question of how their view of what counts as knowledge and as knowledge-making may arise and in the field inquiry this will surface.

The focus on a social constructivist epistemology in this thesis, therefore, posits that humans learn because they interact with their environment. I argue that the socio-cultural environment and socio-cultural history of the lecturers within the Faculty of Education at the HEI will feature not only on their learning of the new tool and its environment, but also in what they perceive as the environment. Thus, the way they are supported in the HEI, the way they are encouraged to risk, the way they are educated to become competent mediators via ICT and so forth, will form the cognitive confluence in which they will be ‘situated’ as teachers and whence their creation of distributed learning opportunities will arise (Vygotsky, 1978).

This is the framework that guides my understanding of their changing epistemologies, as they engage with ICT and I focus to some extent on the component of tool-use and tool-mediation in this framework. I argue further that

during the process of initial engagement lecturers are continually challenged to learn by 'making new knowledge' as they start working with the tools of ICT because they cannot superimpose existing epistemologies onto a tool that is in essence so different to traditional printed text and face-to-face communication

I have already indicated my view that the move from an ICT-free environment to one that is based on elearning demands a changing epistemology, simply by virtue of the notion that the affordances of ICT expands (or shrinks) the learning environment so dramatically and instantaneously. I argue that if lecturers hold on to static epistemologies that they will find ICT-based education disconcerting. The landscape in which education now takes place is just so different that it begs for an adaptation of views of knowledge. One example is that navigation to information is already regarded as an important learning outcome. Therefore, the changing or emerging epistemologies and pedagogies of lecturers can be seen to be taking place in a much more richly textured and very specific ICT developing culture at the HEI. My perspective on lecturers' emerging epistemologies and pedagogies is that they are forged by the multiple contexts mentioned above and are highly individual. I do not believe in an educational ICT manual that can be followed by all. It is for this reason, I believe, that generic training sessions and staff development activities relating to ICT are not always effective at the HEI.

This view of the lecturer as a unique individual is a view that integrates well with Activity Theory. In this landscape of human activity and learning, individual lecturers can be seen to act in a complex system of actions, tools, members, rules and a community (Engeström, 1999). This individual identity of the lecturer can, therefore, be seen as the combination of *activity in context*. From the perspective of Activity Theory, the HEI can be seen as an activity system that is connected to other systems, each within which there are tools and contexts. The ICT community at the HEI is, therefore, forged by the activities of lecturers and manifested through their labour, utilising the tools of ICT. Lecturers' theories of knowledge and teaching are, therefore, forged by the 'multiple contexts' of the individuals within the ICT culture and must be seen as dynamic and constantly changing. A brief exploration of socio-cultural theory and Activity Theory follows now in order to

establish theoretical markers for a clearer understanding of emerging (or stagnant) epistemologies and pedagogies.

3.2 SOCIO-CULTURAL THEORY: A VIEW ON CHANGE

The research journey, including the way in which theoretical knowledge is found and used, is unique for every researcher. In terms of this inquiry I have accessed the theoretical domains of socio-cultural theory and Activity Theory with specific reference to the notion of tool mediation in these two related theories. I have come to understand that the tools that are incorporated in engagement with ICT can be physical (like a computer or some other technology) or non-physical (like a metaphor, a story, or a theory such as Activity Theory) and that a researchers use of these tools can assist to change him/her to adapt theoretically in the search for knowledge. Contrastingly, I have also become aware that certain tools are not appropriate for the achievement of specific goals. By using the tools of ICT I also learn more about the use of the tool in general and how to use (and choose) the most appropriate tool for each and every situation in the research process. To elaborate on this further, using a tool eventually changes almost every situation or activity in which I am engaged to some extent. I have often changed my goals or given up on them completely, only to set new goals that arise to replace my original ideas – and these have come about mostly be the way I have interacted with the tool and in which the tool has mediated my understanding and competence. Sometimes even achieving a certain goal using specific tools has led to a change in my original goals or the implementation of completely new tools in order to achieve other goals. Using tools has not only been prominent in the changing of situations and contexts in my own engagement with ICT, but has also changed certain activities and goals in this process, which are ultimately realised as changes in me (the tool user). Colleagues within the HEI have also encountered similar experiences during their engagement with the tools of ICT. These observations about lecturers' experiences are included here because they indicate my viewpoint with regard to tool use and educational ICT. I argue further that electronic tool mediation in ICT, as in the tradition of socio-cultural theory and Activity Theory, has the potential to generally change human practices over time in

the way that the globalisation theorists have argued it (Castells, 1996, Giddens, 1999).

Tool use is an integral component of both socio-cultural and Activity Theory (Cole, 1999:90) which in turn can be seen as a theoretical framework for analysing human practices or 'what people do' in context by means of tools (Cole, Engeström & Vasquez, 1997:1; Engeström, 1999:19). In the practice of implementing the tools of ICT I have witnessed changes in the way lecturers approach and mediate learning opportunities and also think about the knowledge that is made in these processes. The reasoning that underlies comprehension of such change can be found in the way theorists have postulated experience, understanding and also consciousness.

The hypothesis that formed the basis of Vygotsky's work, and that links this inquiry to his work is that consciousness is not found in the individual mind as much as in everyday practice. Ryder (1998:[Online]) elaborates further that consciousness is manifested in what we do, in the communities that grow around us, in the tools we use and in our language and landscape. In this section of the thesis I will highlight how issues like social practices and tool use during engagement with ICT could lead to new spatial, cultural and social relationships at the HEI, ultimately resulting in changes in the way lecturers deliberate about and approach their teaching (and thus change their epistemologies and pedagogies). Ryder (1998:[Online]) ascribes the development of such new approaches (a result of engagement with the tools of ICT in this instance) to the mediation of relationships characterised by openness, plurality, and co-emergence - what he describes as "the central themes of contemporary literary theory, user-centred design, and constructivist educational philosophy." In addition, globalisation also seem to indicate that technical, economic and cultural barriers will continue to erode as people engage with the tools of ICT as instruments of participation in social practice (Castells, 1996; Giddens, 1999).

In this regard I would like to better understand the relationship between tool use and lecturers' changing epistemology and pedagogy during what I describe in this

thesis as *the process of engagement with ICT*. Kaptelinin and Kuutti (1997:[Online]) are of the opinion that in order to achieve such goals one should incorporate a conceptual system which “considers the human mind as a part of the context in which it exists.” This conceptual system should also ideally consider the action of people participating in routine cultural contexts (Cole, Engeström & Vasquez, 1997:1) and provide methodological options for studying human behaviour within these contexts.

“Whatever one’s entry point into the study of culture and development, a commitment to a unit of analysis that includes individuals and their sociocultural milieu immediately entails a series of major methodological problems to anyone who would seek to embody the resulting theoretical notions in empirical practice.” (Cole, Engeström & Vasquez, 1997:2)

In this inquiry, therefore, I have not implemented a single research methodology (see Chapter 2) and I have also not drawn theoretically on a single discipline in order to look at and interpret the unit of analysis as set out earlier in this thesis (*lecturers’ emergent theories of knowledge and teaching in first encounters with ICT*). I have integrated theories for the understanding of the topic and also for the way I would try to understand the unit of inquiry in the field study. Central to the thesis is, however, the notion that knowledge is never static and that understanding is on-going (Harland, 1987, referring to Derrida). But the genesis of the sociality of learning came much earlier than the writings of Derrida.

The first person to explicitly formulate the idea of human interaction and action as a unit of psychological analysis (as opposed to the individual mind and behaviour), as used above, was Sergey Rubenstein (as quoted by Bannon, 1997:[Online]). Rubenstein is also accredited as one of pioneers in Russian cultural-historical research in the early 1900’s and is therefore possibly the father of work spawned by Vygotsky.

The socio-cultural nature of the framework for this inquiry, the concept of cultural mediation during engagement with ICT, and the idea of the computer as a tool, can also be linked back to the early 1900's when the idea of the inseparability of human mind (consciousness) and activity was first proposed and agreed upon by Russian psychologists. Bannon (1997:[Online]) explains this by referring to it as the 'birth' and development of "the human mind" as construct that can be understood "within the context of meaningful, goal-orientated, and socially determined interaction between human beings and their material environment. It was at this time that Vygotsky first argued that the study of consciousness should be included in *psychology*, whereas earlier it had been lodged in the domain of *philosophy*. As a result, he favoured the study of mind as unit of analysis, rather than behaviour as main focus of the reflection of the mind (as the school of behavioural psychology would have it), as a means to this end. A main focus of Vygotsky's cultural-historical research was thus the use of mediating tools and symbols as key factors in psychological development and the analysis of the interaction as *symbolic* (later this was to be described as "discursive" by poststructural linguists). Interaction includes mediation and mediation, in Vygotskian parlance includes tool-use. Thus, to explore the human mind, or consciousness, the way it was exemplified in tool use (including the most prominent tool, namely language) became the focus. But to see tools in context, students of Vygotsky, namely Leont'ev and Luria, generated a model for understanding activity and tool use as heuristics for understanding learning and thinking generally. Leont'ev's work was later expanded by the wave of cultural psychologists in different parts of the world, with the University of California at Santa Cruz, and the University of Helsinki taking the lead.

3.3 ORIGINS OF ACTIVITY THEORY

The origins of Activity Theory in the cultural-historical school of Russian psychology and the association with names such as Vygotsky, Leont'ev, and Luria are well documented by a number of authors (Nardi, 1996; Kaptelinin & Kuutti, 1997:[Online]; Cole, Engeström & Vasquez, 1997; Bannon, 1997:[Online]; Minick,

1997:117; Cole, 1999:89; Engeström, 1999:19). In 1928, Alexander Luria began the first Soviet publication to be published in English with the well known premise that “man differs from animals in that he can make and use tools” (as quoted by Cole, 1999:89). Luria argued that tool use also changes the conditions of human existence and the structure of human psychological processes (Wertsch, 1997:229). The change in human thought that came about through the use of a tool was ascribed to natural processes being complimented by indirect (mediated) processes – something Jerome Bruner later referred to as “prostheses” of the mind (1990). Luria, therefore, recognized that human reasoning is *culturally mediated* - that it is shaped by historical and cultural changes, concomitant with the tools used in the culture (material and mental tools, as well as symbolic tools such as language and art). He also accurately described the manner in which human brains interact flexibly with tools and symbols to adapt to and shape our environments – thus giving some of the first ‘neurological, physiological’ glimpses of ‘culture’ (Toulmin, 1999:58).

A year later, in 1929, Vygotsky also focussed on studying the change in human activity brought about by tool mediation and added that tool-mediated activities can lead to unique psychological functions. Critics at the time, however, questioned the appropriateness of distinguishing between natural/physiological and cultural processes and also criticized what they called an “underdeveloped treatment of the relationship between mind and activity” in subsequent Vygotskian publications (Cole, 1999:89). Despite this criticism elements of all psychological theories of the time were evident in the work of Vygotsky and it was these varied attempts at theoretical integration that partly ensured the ‘acceptance’ of Vygotsky’s work in the USA when it was first translated in the 1970’s (Axel, 1997:130) and especially when the revised translations appeared in the 1990’s (Kozulin, 1990). Vygotsky’s formulation of a radically new theoretical concept that was offered as an alternative to psychoanalysis and behaviourism was known as the model of *artefact-mediated* and *object orientated* action (Vygotsky, 1978:40). In this model Vygotsky proposed that the human individual never reacts directly to the environment and that the relation between the human and the object is mediated by cultural means or artefacts which could include what Vygotsky

referred to as signs and tools – both of which would be captured later in the theory of semiotics (Harland, 1987). This initiative was then explored further and adapted by Leont'ev after Vygotsky's untimely death.

Alexei Leont'ev is the author who is mostly accredited with the formulation of the concept “activity” as we understand it today within the field of Activity Theory (Engeström, 1999:24). After Rubenstein first formulated the notion of human action as a unit of psychological analysis, the work of Leont'ev seemed to receive more prominence in academic circles and consequently became better known, ultimately developing into the conceptual framework which is now known as Activity Theory. Lektorsky (1999:66), however, points out that the variant of Activity Theory as proposed by Leont'ev has been severely criticised by other authors, including Rubenstein himself, who stressed that human activity cannot be understood as simple internalization of *cultural ways of doing* (my emphasis) or what Rubenstein called “ready-made standards” (Rubenstein, 1976 as quoted by Lektorsky, 1999:66). Rubenstein's theory, on the other hand, also falls short in that it does not fully consider the role of mediation in the process of human activity, an issue that Leont'ev did emphasise (Lektorsky, 1999:66). Leont'ev saw activities as micro systems (not to be confused with systems theory) that are driven by objects and motives. An object is seen as something that is realized through individual actions that are goal-driven. Leont'ev, furthermore, proposed that activities can be described on three levels or in three spheres: the *activity* level, the *action* level and the *operation* level. Lektorsky (1999:66) acknowledges this and draws attention to the fact that Leont'ev gave the greatest attention to the subjective side of activity (the performing social actor) without paying much notice to the intersubjective relations that arise in the context of artificial objects (the other people in the context – directly or by way of signified representation). Upon consideration of the criticism against these differing ‘versions’ of Activity Theory, I would argue that many of the proposed ideas mentioned above are not outdated as suggested and all add something new to a continuously developing conceptual framework. It must also be noted here that besides the Soviet Russian socio-cultural psychology of the abovementioned authors, Activity Theory has other roots in the classical German philosophy (from Kant to Hegel) and in the writings

of Marx and Engels (Engeström, 1999:20). I have merely provided a snapshot of the 'roots' of Activity Theory in the foregoing paragraphs and take cognisance of the diverse origins and the many contested issues that can still be identified in this regard. The emerging nature of Activity Theory is still evident today: the consensus at the 2004 Pacific regional conference of the International Society of Sociocultural and Activity Theory (ISCRAT) was, for example, that Activity Theory still needs to be expanded and tested.

3.4 ADVANCES IN ACTIVITY THEORY

It has come as no surprise that Activity Theory has over the past few decades evolved to become an 'accepted' part of the larger research community, even in a number of ICT related studies as documented by a number of authors (Nardi, 1996; Kuuti, 1996, 1999; Tikhomirov, 1999; Russel, 2004). The focus has moved away from the strong psychological and now takes the social context into account as well viewing human action as a unit of analysis within a dynamic social context. Recently Activity Theory has also gained popularity as an approach to research that takes into account the cultural and organisational context while focusing on daily routine work. As a conceptual tool, Activity Theory provides a heuristic mechanism that organises knowledge about activity and tool use in a sociocultural context – giving attention to fine details of activity, action and operation towards achieving a goal. It is thus not a theory that predicts as much as it is a theory that assists in understanding (*verstehen*). Activity Theory is thus seen by some of its proponents as a set of basic principles that constitute a general conceptual system, rather than a highly predictive theory (Bannon, 1997:[Online]; Kaptelinin & Nardi, 1997:[Online]; Kaptelinin and Kuutti 1997:[Online]). In other words its authors do not see Activity Theory as a theory' that predicts and explains rather as a frame that seeks to provide a set of basic principles which may be used to provide a broader conceptual framework with which to *understand* human activity in context (see Holliday, 2001). Activity Theory is, however, also still seen by some authors as a distinct line of theorising and research (Engeström & Miettinen,

1999:1). My reasoning in this thesis is aligned with this view of Activity Theory where I see it as a knowledge tool with a distinct unit of inquiry or of analysis.

The basic unit of analysis as proposed by Activity Theory is *an activity*. Activity, or 'what people do' is reflected through actions as people interact with their environment (Bakhurst, 1997:147; Minick, 1997:125). An activity can, therefore, be seen as a system of human 'doing' where a subject works on an object in order to obtain a desired outcome. In other words, activities are made up of goal-directed actions that must be undertaken in order to fulfil the object (Kaptelinin & Nardi, 1997:[Online]). In doing this, the subject may employ tools, which may be internal (like a plan) or external (like a computer). Many subjects may be involved in the activity and each subject may have one or more motives (like career advancement, status within the HEI, improving teaching). A simple example of an activity at the HEI might be a single lecturer (subject) who is engaging with ICT (object) in order to keep up with technological advances in education (outcome) using a computer (tool). Activity can, in this case, be used as the basic unit for studying human practices such as engagement with ICT. I argue further that Activity Theory is a way of addressing the "lack of a single unifying theoretical perspective in the field of ICT research" (compare Kaptelinin & Nardi, 1997:[Online]). The complexity of activities will now be briefly discussed in more detail.

Although I have already mentioned that there are three levels or components of activity, I will now elaborate on this distinction because it is important for an understanding of lecturers varied engagement. It was Leont'ev (1978) who first proposed that there are three levels in an activity: the *activity* level, the *action* level and the *operation* level. Activities were seen by Leont'ev to consist of distinct actions or series of actions, which in turn consist of operations (Kaptelinin, Nardi & MaCaulay, 1999:29). Activities are undertaken in order to fulfil *motives*. These motives can be seen as major objectives like, for example, lecturers wanting to incorporate ICT into their courses by placing certain modules online. Behind this motive there is always a desire or need and the lecturers may or may not be aware of their motives. Some motives to illustrate this example further may be

increasing chances of promotion, obtaining relevant career experience within the multi-modal teaching framework of the HEI, or contributing to organisational objectives.

Actions are goal directed processes that are normally carried out in order to fulfil a motive (Kaptelinin, Nardi & MaCaulay, 1999:29) and can be seen as basic components of activities. They are always subordinate to the larger activity. The goal of an action is a conscious goal that guides the action and different actions may be undertaken to meet a common goal (Ryle, 1999:413). For example, a lecturer may set up a discussion forum within an online module in order to increase 'interactivity' in the course. Actions are conscious; the lecturer is aware of his goal.

As one moves down the levels of actions one crosses the border between conscious and automatic processes. *Operations* can be described as "functional sub-units of actions that are carried out automatically" (Kaptelinin, Nardi & MaCaulay, 1999:29). They do not have their own goals, but adjust actions to specific situations. Operations, to continue with the example above, may be the lecturer logging on to the course management system (CMS), downloading student files for assessment, or accessing course emails. They are, in other words, the concrete conditions required to achieve the goals and can be seen as ways of implementing actions in specific contexts (Ryle, 1999:413). Some of the operations mentioned above may have started out as conscious acts which over time became automatic and unconscious. These actions have been transformed into operations through regular practice. On the other hand, an operation can also become an action when "conditions impede an action's execution through previously formed operations" (Leont'ev, 1978). An example of this could be when the lecturer has to resort to using an alternative, web-based email program due to technical problems with the course email. The lecturer in this case has to now pay deliberate attention to using an unfamiliar set of commands and procedures and is carrying out a conscious act. Kuutti (1996) provides a graphical representation of these three levels of activity and their relationships to one another.

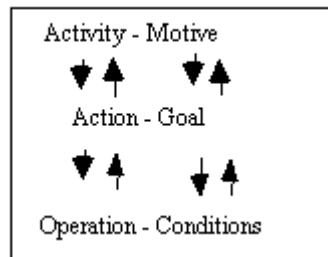


Figure 3.2: Three levels of activity (Kuutti, 1996)

The model should not be seen as static or rigid, but rather as one that allows a flow between levels. All levels of this model, subsequently, have the potential to move both up and down as the need may arise. Operations over time, as mentioned previously, can in some cases become unconscious actions thereby making the distinction between the two unclear/blurred. What can be seen as an action one day can be classified as an operation on the next. Similarly, the distinction between action and activity can also become blurred when goals and motives tend to overlap or be used interchangeably in certain cases. Activity must, therefore be viewed as part of a complex but contextualised system that must be studied in its entirety. The mental (heuristic) tool applied to explore activity is in itself not rigid. It is a thinking tool that scaffolds thinking about human learning and activity. It provides a structure, but is not given the position of a super-structure that acts as meta frame. It is a device. It is, in itself, a tool. Thus it embodies and exemplifies its own message of tool-mediation. The tool is thus almost poststructuralist in its essence, showing how tools can be used in mental and intermental activity in strict Vygotskian terminology.

Consequently, activity theorists are not concerned with 'doing' as a disembodied action but are referring to "doing in order to transform something" with the focus on the contextualised activity of the activity system as a whole (Engeström, 1987, 1998; Kuutti, 1996; Barab, Barnett, Yamagata-Lynch, Squire & Keating, 2002:78). In this inquiry, the goal oriented, socially and culturally influenced practices of lecturers engaging with the tools of ICT can be seen as the activity which

ultimately leads to what I describe in this thesis as '*emerging epistemologies and pedagogies of lecturers during first encounters with ICT.*' These activities are driven firstly by individual needs in order to achieve certain goals and also by individual contexts within the social setting of the HEI. The activity in this inquiry is usually mediated by tools (the tools of ICT and in particular the computer) and this concept of mediation of activity using tools is a central theme of Activity Theory. The role of context in the understanding of the individual lecturers' actions is also essential as lecturers activities during engagement with the tools of ICT are shaped by individual contexts and also unique social and cultural 'histories' (see Figure 2.7).

The 'minimal meaningful context' for understanding activity systems is the activity system which, according to Barab *et al.* (2002:78), includes the actor/s (lecturers in this inquiry), the object ('the acted on') and the dynamic relations between both. This follows Leont'ev's original scheme in which the scheme of activity was made up of the two components mentioned above but differs from Engeström's scheme that includes three interacting entities – the individual, the object, and the community. These two schemes have their roots in the Vygotskian concept in which tool mediation is central and in Leont'ev's notion of activity, which were combined and included in Vygotsky's (1978) *basic mediational triangle model* as portrayed in Figure 3.3 below. In this model, Vygotsky's view that human beings' interactions with their environment are not direct ones but are instead mediated through the use of tools and signs. This model is also known as the *basic activity triangle model* and highlights the notion that the relationship between the subject and object is not always direct and may instead be mediated through the use of a tool.

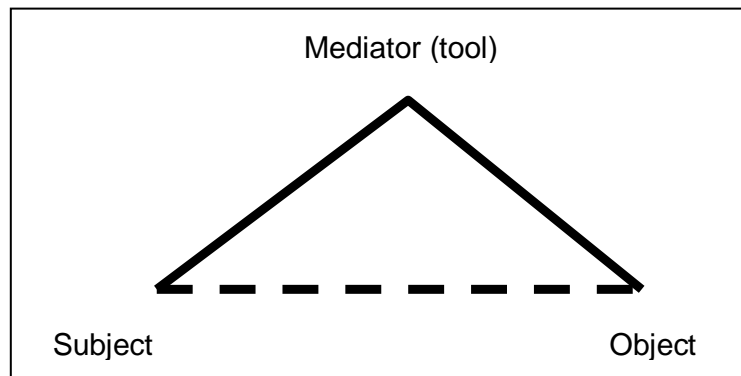


Figure 3.3: Basic mediational triangle model (Vygotsky, 1978)

This basic mediational triangle model as proposed by Vygotsky can be further extended and adapted by following Engeström’s approach to form the classical triadic model depicted in Figure 3.4 below.

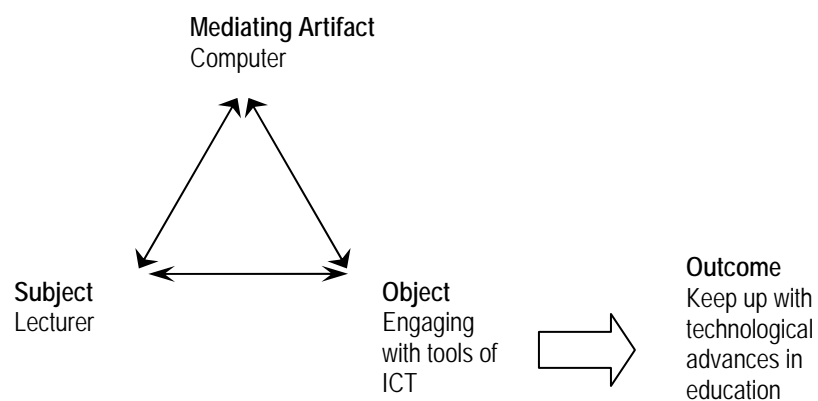


Figure 3.4: A triadic representation of actions at the HEI (adapted from Engeström, 1999:30)

In Figure 3.4 the subject (individual lecturer at the HEI) is engaging with the tools of ICT (object) in order to keep up with technological advances in education

(outcome) using the computer as mediating artefact. The outcome could, of course, be something totally different like ‘conforming to the demands of HEI management’, but for this simple demonstration I will concentrate on the original outcome. The problem with this classical representation as depicted above is, however, that “it does not fully explicate the societal and collaborative nature of the lecturers’ actions” (compare Engeström, 1999:30). To put it another way, it does not see the lecturers’ actions as part of a greater collective activity system. The outcomes appear to be very restricted and limited to a very specific situation. Engeström (1999:30) is of the opinion that in such cases, the level of representation hides or obscures the motives behind the actions. For this reason, Engeström expanded the structure of emerging activity systems and proposed his new model in 1987.

Engeström (1987) conceptualised the expanded version of Vygotsky’s original basic mediational triangle model by incorporating Leont’ev’s notions of the social and mediational aspects of human activity. This was done in order to reflect the collaborative and collective nature of human activity and resulted in what is now known as the *expanded triangle model* or the *activity triangle system*. This model or system in its expanded form, as depicted in Figure 3.3, still incorporates the *subject* and *object* but also includes the *community* and other mediators of human activity, namely *division of labour*, *tools* and *rules*.

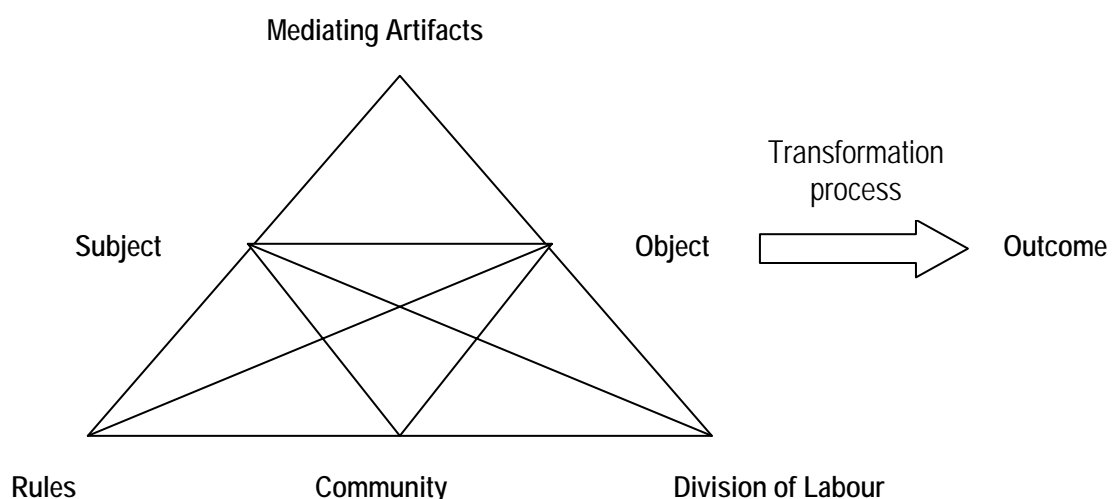


Figure 3.5: Expanded activity triangle model (Engeström, 1987)

The relations depicted in Figure 3.3 are not direct or linear. For example, the relations between subject and object are not direct but are mediated by a variety of factors including tools, community, rules and division of labour. The *object* is a fundamental space in which activity is directed and eventually is shaped into *outcomes*. Individual subjects need not be consciously aware of the objects that their activities may be realized as outcomes. As previously mentioned, the subjects in this inquiry are the *individual lecturers*. The object in this case is a conceptual one, namely *engaging with the tools of ICT*. The activity is directed at the object which is “moulded or transformed into outcomes with the help of physical and symbolic, external and internal tools” (Engeström, 1993:67). Lektorsky (1999:67) adds that tools do not have to be signs and symbols as propounded by Vygotsky but can include ordinary objects in everyday life, instruments, and other human-made tools (I include computers and the Internet here) that can influence human activity.

The community in the above representation refers to “those individuals, groups or both who share the same basic objects, and are defined by their division of labour and shared norms and expectations” (Barab *et al.*, 2002:78). A *community* is a self-identified group of individuals or smaller groups that share a common object. The ICT community at the HEI is made up of a number of individuals who are all aspiring to ‘similar’ objects but once again I must stress that in some cases these objects do differ. Similarly, the outcomes of this engagement with the tools of ICT in their educational practice may not in each case be the same. Even though the individual lecturers are engaging with ICT in their daily routines (and for a variety of possible reasons) individual outcomes may differ. The one outcome that I aim to highlight in this thesis (which, as mentioned previously, may not be the only outcome) is the changing epistemologies and pedagogies of these lecturers as they engage with ICT within a very specific activity system. In this model, divisions of labour will also run horizontally as tasks are spread across lecturers in the HEI community with equal status, and vertically as tasks are distributed up and down the various divisions of power. The last part of the model is the set of rules, norms

and conventions that exist within the HEI community that act to keep the activity system in check. These rules may be formal (systematic, general and expected), informal (personal or individual adaptation), or technical (ICT policies, strategies, plans and other official documentation).

The various components of the activity system as presented above should not be seen as static features existing in isolation from one another but rather as dynamic and continuously changing. The roles of these elements in the system are dynamic. An initial object may eventually be realized as an outcome, which can subsequently be used as a tool, or may be incorporated as a rule. The result is that the system feeds back into itself. In an examination of the lecturers engagement with ICT at the HEI, for example, I must consider the dynamic nature of the activity system within a specific time and place, and the possibility of 'nested' activities and actions within the system that may be seen as part of the existing activity system or as separate activity systems altogether. Barab et al. (2002:79) provide the example that although a computer may serve as a tool in a current action, at an earlier time this computer may have been an object or an outcome in what may be conceived as a previous action of the same activity system or even a different activity system altogether. Similarly, rules like an ICT implementation plan, for example, that influence the activity system now could be the outcome of previous actions that led to the creation of the ICT implementation plan in the first place.

The objects of previous actions may change rules and division of labour. A main focus of Activity Theory is, therefore, on how subjects transform objects, and how the various components of the system mediate this transformation. In this inquiry a single focus could, therefore, be on how computers have mediated the relationship between the subject (lecturers) and the object (engagement with ICT). Kuutti (1996) points out that it is not simply the human-computer (participant-tool) interaction that is essential to understand, but also the participant-object interactions as mediated by the computer. This expands the unit of analysis to incorporate *an entire activity system*.

In order to overcome certain limitations that are evident in the schemes and models I have already discussed in this section, I now present Engeström's (1999:31) complex model of an emerging activity system which I have adapted to represent the activity system relevant to this inquiry. As mentioned above, the various components of this activity system should not be seen as static features existing in isolation from one another but rather as dynamic and continuously changing. The various elements as proposed in Figure 3.6 below are dynamic and the lecturers' actions must also be seen as part of a greater collective activity system and not in isolation.

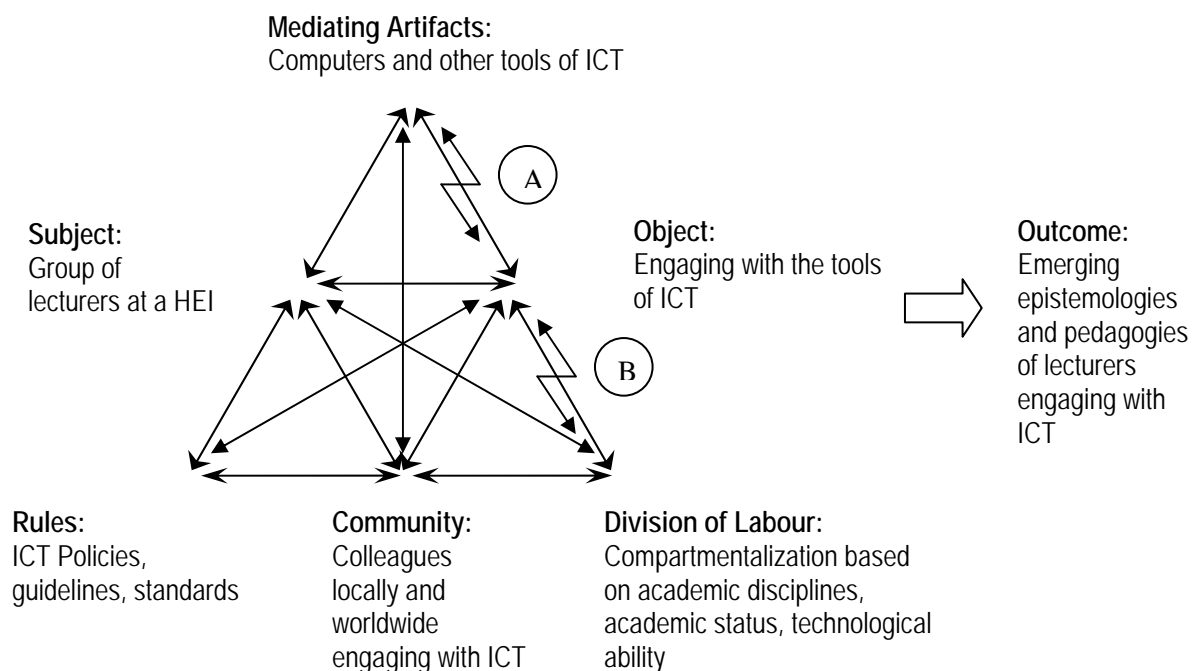


Figure 3.6: A complex model of an activity system (adapted from Engeström, 1999:31). The significance of letters A and B will be highlighted below.

In the above representation, the central issue of engagement with the tools of ICT remains the object but the link between the individual actions of the lecturers and the collective activity is accentuated. Engeström (1999:31) posits that the

projected outcome when using this complex model is no longer momentary and situational but rather consists of “societally important new, objectified meanings and relatively lasting new patterns of interaction.” Engeström is of the opinion that it is the projection from *object* to *outcome* that, no matter how vaguely envisioned, functions as the motive for this activity and gives broader meaning to the actions of the individual lecturers. The most important mediating artifact in this inquiry remains the computer and the social basis of the activity is the group of local and international lecturers at Higher Education Institutions currently engaging with ICT in their educational practice (Community). The rules impacting on the activity system include the ICT policies of the HEI, including guidelines for implementing technology in education and technology standards for educators. Finally, the division of labour within the loosely structured ICT community at the HEI is characterised by various layers of fragmentation and compartmentalisation as a result of differences in academic status, a variety of academic disciplines, and technological ‘ability’ in general. Tolman (1999:73) expands on this by stating that “the necessary, conscious division of labour in human society is the most obvious indicator of the individual human’s *societal* nature” (emphasis in original). The individual, it can be argued, is truly human only in society. To put it another way, human individuality is achievable only in society. In this light, the individual lecturer within the ICT community at the HEI can best be studied within the framework of this community in order to highlight tensions or contradictions between the various components of the activity system.

Activity Systems are characterised by their internal contradictions (Leont’ev, 1974; Engeström, 1987, 1993, 1999). These contradictions can also be seen as tensions that arise between the various components of the activity system. These tensions are critical to understanding what motivates specific actions within the activity system and, more generally, in understanding the dynamic nature (evolution) of the system (Barab et al., 2002). In Figure 3.6 above I have inserted lightning shaped arrows following Engeström’s (1999:31) example and the letters A and B to indicate some of the contradictions between some of the central components of the activity system under review. These arrows represent system dualities (Barab et al., 2002) that must be understood in order to understand the

continued development of the system. The first example of a contradiction within this activity system (A) exists between the very issue of engagement by lecturers with the tools of ICT and the actual tools at their disposal. A second contradiction (B) exists between the self-same issue of engagement with the tools of ICT and the division of labour that seems to be dividing or pulling lecturers from various disciplines, academic status (from lecturer to professor), technological ability, and schools of thought (including pervasive epistemologies) – preventing satisfactory engagement with these tools and ultimately affecting the way in which they approach and think about their teaching with technology in general. This is indicative of what I have been arguing earlier, namely that there is as yet not a coherent set of pedagogies to guide novice HEI teachers into the ICT world.

With this comes the lack of coherent policy. The ICT policies of the HEI that influence the Faculty of Education in particular, including guidelines for implementing technology in education and technology standards that are applicable to educators in general (rules), consequently also create direct tensions between the rules and various other components of this activity system. These tensions or contradictions (Engeström, 1999:32) are indicated on the above Figure (Figure 3.6) by means of double headed arrows that illustrate the complexity of such systems. Wenger (1998) argues that it is the interplay between these dualities that drive the activity system. As tensions enter the system they become the driving forces behind the disturbances and innovations that ultimately cause the system to evolve and develop (Barab et al., 2002:80).

Engeström points out that the above model will surely evoke objections and criticism with further elaborations and alternatives, but in doing so is serving the purpose for which it was designed. This once more shows that the tool is discursively performing the actions that it has been designed to support conceptually. By moving between the analysis of individual actions to the analysis of their broader activity and back again (as indicated by the double headed arrows in Figure 3.4) various new contradictions may be exposed in the activity system that may help to explain some activities that in other cases would be difficult to explain by only remaining at the level of actions. Another example of this could be the subject-community relationship between the individual lecturers at the HEI and

colleagues both locally and worldwide engaging with ICT. By analysing the activity system in this way it will then be possible to expose these underlying contradictions that give rise in some cases to various failures and unexpected innovations that may affect even the most well planned actions.

The activity system as proposed by Engeström will be an important tool of analysis of the findings of this inquiry. I will view context in this process not simply as a container nor a situationally created experiential space but as an entire activity system integrating the participants, the object, the tools of ICT, the community of educational ICT practitioners, their rules and divisions of labour as described above into a unified whole (compare Engeström, 1993). In doing so I aim to illuminate a variety of the contradictions and tensions that exist within the activity system at the HEI and ultimately also expose the factors that appear to affect the emerging epistemologies and pedagogies of lecturers engaging with the tools of ICT. In the introductory paragraphs of this Chapter I have already identified a major tension within this activity system, namely:

“the distinct tension between distribution and situatedness where the lecturer can, firstly, draw on various knowledge sources from within the field of ICT and, secondly, how this same lecturer can personally contextualise and thus individualise a learning event within the specific social, geographical and historical contexts of the ICT community at the HEI” (paragraph 3.1).

My previous indication was that these lecturers can only make meaning of their initial engagement with ICT and the subsequent changes in their ways of teaching, and thinking about teaching in general, when they see the broader picture of how engagement with ICT is not only on a physical level, but also strongly related to their geographical, historical and cultural context including the culture of learning and teaching that they are accustomed to (this would then, of course, include their existing and possibly also their changing epistemologies). This and the sum of the other tensions that exist within the ICT community at the HEI will influence the types of transformations a single participant can have on an object within the activity system (Barab et al., 2002:80).

Another aspect that needs consideration is the object of the activity system that has been described in the example above (Figure 3.4) as *engagement with the tools of ICT*. In many cases lecturers have confronted advances in ICT alone while others have accepted some kind of help and support. In the framework of Vygotskian sociocultural (and historical) theory the cognitive space in which the learner moves with the help of a mediator is known as the Zone of Proximal Development (ZPD). In the instance of educational ICT at HEI's, the novice user may rely on this supportive zone for the scaffolding that is essential when embarking on the competent use of new skills, tools and concepts (and the development of a changed epistemology).

3.5 THE ZONE OF PROXIMAL DEVELOPMENT FOR LECTURERS ENGAGING WITH THE TOOLS OF ICT: CONSTRUCTION ZONES FOR SHARED LEARNING

The Zone of Proximal Development is a concept that implies support. Vygotsky believed that there was a difference between what an individual could achieve by themselves and what they could do with the help of a more skilled individual (Ryle, 1999:413; Chaiklin, 2003:41). In a sense this refers to an individuals' potential to learn (Bentham, 2002:10) and, in fact, Vygotsky referred to intelligence as an individuals potential to learn. This Zone of Proximal Development (ZPD) also takes into account individual differences and the fact that various individuals may have different ZPD's for different subject areas. When projected to the lecturers at the HEI engaging with ICT, this may help to explain why certain lecturers adapt to the proposed multi-modal teaching strategy easier than others.

There are two key concepts proposed by Vygotsky which have particular reference to teaching, namely; the *Zone of Proximal Development* and the technique of *scaffolding*. Although the ZPD was first used to explain how children learn, I argue that this concept can easily be transposed onto the situation at the HEI where adult lecturers are learning about the use of technology in their teaching practice. Continuing with this train of thought, the ZPD can then be seen as the gap

between what a lecturer can learn by himself and what he can potentially learn with the help of others. The focus here is then on effective instruction as the key to the learning process. Vygotsky would suggest the intervention of a teacher or more able peer in this process but I argue further that the computer itself (and the Internet in many cases) could also fulfill this role. I propose, therefore, that any instruction that is slightly ahead of the individual lecturers' developmental level may lead to effective learning, even if the individual lecturer is being taught something by the computer and not directly by another individual. This contrasts with Vygotsky's view that any individual left to their own devices in order to construct knowledge for themselves is unlikely to be stretching their intellectual capabilities. In response to this I argue that in some cases the computer may in fact be able to stand in as the 'instructor' or 'teacher' providing instruction that 'extends' the lecturer and leads to effective learning.

Vygotsky also felt that individuals should be taught by a process of scaffolding which incorporates the principles of contingent instructions (Bentham, 2002:18). This includes offering more help when the individual is struggling and withdrawing help when the individual is succeeding. This is normally done through the language of shared communication but must be seen as more than just a more skilled individual instructing a less skilled individual. In the context of this inquiry these conditions include active participation of the lecturer in specific tasks related to the use of ICT in his or her teaching, with the help of another individual who transfers responsibility to the lecturer at an appropriate rate. Certain computer software applications already include elements of scaffolding in their fundamental design which also allow the user to internalize instructions given by the software in order to learn. Bentham (2002:11) reminds us that in order to learn, the individual must internalize the instructions of the other (which, as I have already stated, may be the computer) in order to self-regulate. For this process to take place, however, there must be *intersubjectivity* and *semiotic mediation* (Wertsch, 1984).

When a lecturer at the HEI is learning a new task, for example, his understanding of the task may be significantly different to the teachers' understanding (whether or not the teacher is a peer or a computer) that in a sense they may seem to be looking at two totally different problems. In this case a common understanding of

the situation must be negotiated in order for the two to have a shared understanding of what they are supposed to do. This shared understanding is termed intersubjectivity and the process through which they come to this shared understanding is called mediation. The concept of mediation emphasises the role played by human and symbolic intermediaries placed between the individual learner and the material to be learned (Kozulin, Gindis, Agreyev & Miller, 2003:3). When a lecturer is coming to a shared understanding of the use of ICT in teaching through interaction with peers and the computer itself, he is trying to achieve intersubjectivity. The lecturer will achieve this either through 'discussion' of certain issues (This is, in fact, why Vygotsky saw the role of language as crucial to cognitive development) or through engagement with the tool (The computer in this case).

The potential of Activity Theory to be used as an analytical tool in this inquiry has already been described. Its potential to be used to analyse the dynamic human interactions mediated by ICT at both the micro (psychological and interpersonal) and the macro (sociological or cultural) levels to construct and understand zones of proximal development is clear. The computer is one tool within this activity system through which knowledge, identity, authority and power relations are continually negotiated and re-negotiated (Russell, 2004:317). Lecturers' engagement with the tools of ICT is, therefore, not a neat transfer of information but a complex and often messy structure of social and cultural practices within the HEI that must be explored as such. The activity systems that form (and are formed by) the lecturers in this inquiry are dynamic and constantly present opportunities for learning. It is such opportunities that Vygotsky calls the Zone of Proximal Development, which he defined as the difference between what one can do alone and what one can do with assistance. This assistance may come from the other components of the activity system like peers and co-workers. Learning within this activity system takes place as the lecturers using the tools of ICT mutually change themselves and their tools. Lecturers within the Faculty of Education at the HEI are continuously changing and learning as they expand their involvement with others in the ICT community and the tools that the community

uses. In this view, learning is social and cultural rather than individual (Kozulin, Gindis, Agueyev & Miller, 2003:1).

The lecturers at the HEI will then be led into their individual ZPD's where the necessary conditions may be provided for *internalization* (Ryle 1999:412). Wertsch (1991) describes the conditions necessary for internalization to occur. Activity theory differentiates between external and internal activities, noting that the two cannot be understood if they are analysed separately from one another. This is because the two transform into one another. Internalisation is the transformation of external activities into internal ones. This procedure provides a means for lecturers at the HEI to try potential interactions with the tools of ICT in reality without actually performing the actual manipulation with real objects. This may help lecturers to consider alternative plans and strategies regarding ICT in their teaching, mental simulations of such processes, and simple imaginings. Externalisation, on the other hand, transforms internal activities into external ones. This is often the case when internalised actions need to be modified or repaired. Externalisation becomes significantly important during collaborative processes involving several lecturers where activities need to be performed externally in order to be coordinated. Russell (2004:317) expands on this by stating that what first appears in the social or interpersonal plane may (or, I argue, may not) be internalised, appearing on the cognitive or intrapersonal level. What is internalised may then, at a later stage, be externalised in future social activity, leading to further change and perhaps learning. This is what Engeström (1987) termed "learning by expanding." To extend this basic concept to the situation at the HEI, an 'online' course created by a lecturer may include not only study material, but also opportunities for interaction with the course presenter, other students or even other experts. I contend that it is those human interactions, mediated by the tools of ICT that will allow zones of proximal development to emerge for lecturers at the HEI.

To make sense of Engeström's concept of 'learning by expanding' (1987) one must take note of the irreversible time structure Engeström called the *expansive cycle* (see also Engeström, 1999:33). This originated from an analysis of the historical evolution of activity systems and the representation of this evolution as

cycles which ultimately lead to the formation of new social structures based on preceding cycles. This expansive cycle is, therefore a developmental process and involves both internalisation and externalisation. For the new activity structure to emerge, lecturers at the HEI must actively reflect on the existing activity structure and come to learn what they would like to transcend. This will involve initial reflection on what they know about their engagement with ICT and will demand that they address the internal contradictions of the activity system (some of which have already been mentioned earlier in this Chapter, and others that will be identified in the findings of this inquiry). This initial focus on internalisation or appropriation is, however, not sufficient for the emergence of a new structure and as the cycle of learning about implementing ICT into their teaching advances, lecturers gradually begin to show signs of externalisation. This is depicted schematically in Figure 3.7 below.

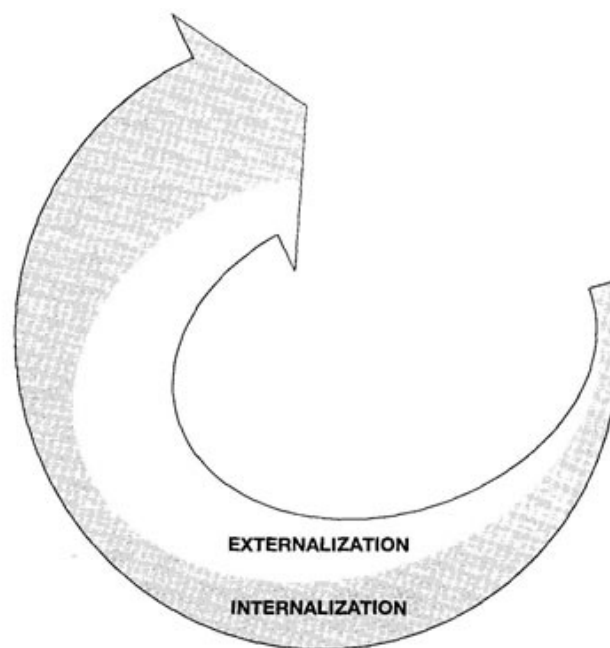


Figure 3.7: The expansive cycle of learning at the HEI (adapted from Engeström, 1999:34)

In Figure 3.7, the expansive cycle of the activity system at the HEI begins with an almost exclusive emphasis on internalisation. Lecturers at the HEI may, for example, initially begin with formal training or experiment individually with the tools of ICT. They then progress in some cases through social interaction within the ICT community at the HEI to become competent members of the activity as it is routinely carried out. The first signs of externalisation are evident when certain lecturers exhibit discrete individual innovations in the field. As the internal contradictions of the activity system become more demanding, internalisation increases and is typified by the lecturer's going through the process of critical self reflection. It is here where they actively begin to think about their teaching and, I argue, their emerging theories of knowledge in general. At the same time, however, externalisation increases as the lecturers actively search for solutions to the varying contradictions within the activity system. Externalisation reaches its peak when a new model for the activity is designed and implemented (Engeström, 1999:34). As this new model stabilizes itself, internalisation of its fundamental methods and procedures once again becomes the dominant form of learning and development as the lecturer engages once again with the tools of ICT at the HEI.

At the level of collective activity systems, the expansive cycle described above may be seen as the equivalent of Vygotsky's (1978) Zone of Proximal Development which he discussed at the level of individual learning (Engeström, 1999:34). The parameters of every individual lecturer's ZPD will differ, and the occurrence of internalisation and externalisation within their individual expansive cycles of learning will also vary, but each one will add something new to the collective activity system that I describe in this thesis. Every individual's expansive cycle of learning how to integrate the tools of ICT into their teaching practice will, in other words, be unique and form part of the complex set of contradictions that continuously drive the activity system at the HEI.

The expansive cycle in Figure 3.7 must not be seen as predetermined representations of one-dimensional development. They are dynamic and unique to every activity within the activity system. This activity system is a "multivoiced formation" (Engeström, 1999:35) and the expansive cycle in Figure 3.7 can be seen a reorchestration of those voices based on the varying viewpoints and

approaches of the various lecturers within the activity system. I contend that when these different 'voices' are viewed against their cultural and historical background, new insights may be obtained from an analysis of the developing expansive cycles within the activity system. The findings of this inquiry may reflect just that.

The following Chapter will now elaborate on these findings by providing a description of the processes and procedures in the analysis of the interview transcripts in order to expose tensions or contradictions that drive the individual activity systems at the HEI.

CHAPTER 4

EXPOSING TENSIONS IN AN ACTIVITY SYSTEM THROUGH SIMPLE CONTENT ANALYSIS

4.1 INTRODUCTION

In this Chapter I will briefly elaborate on the processes and procedures that were carried out during the analysis of the interview transcripts in order to expose the tensions or contradictions that drive the activity system as a whole. All of the textual data from transcripts of interviews in this inquiry have been analysed by means of interpretive content analysis in mostly inductive fashion, not unlike the basics of grounded theory analysis (Strauss & Corbin, 1990). Open coding refers to the creation of categories pertaining to certain segments of text. Coding of data in this inquiry has been done using sentences as segments and each code has been written with an 'action' verb in order for me as researcher to attempt to portray actions and activities within the activity system. Some examples include: *identifying, making claim to, downplaying, identifying, affirming, admitting, stressing, suggesting, meeting resistance, claiming, accepting, making a case for,* and *exposing* to name but a few. This has proven to be a 'comfortable' and logical approach to open coding and has made the process of highlighting the 'actions' behind the inherent tensions within the activity system much easier. In place of breaking down the data into segments of meaning (codes) for analysis and then categorising the segments (LeCompte & Preissle, 1993:210; Merriam, 1998:192) I have rather attempted as far as possible to reorganize the codes into a 'logical order' depicting some sort of a flow not unlike the natural flow of a story. In fact, if read sequentially, the codes sometimes read very much like a story themselves and have the added benefit of providing the reader with the opportunity to find their own meaning from the codes in order to attempt to explain the tensions that exist between the various components of the activity system.

4.2 CONTENT ANALYSIS OF INDIVIDUAL INTERVIEWS

As mentioned previously, the codes derived from simple content analysis of the individual interviews have been plotted onto the expanded Activity Theory triangle in order to show how Activity Theory can be utilised to expose inherent tensions that exist between the various components of the system. It has been argued in Chapter 3 of this thesis that it is these tensions or contradictions in activity systems that continuously drive these systems and lead to a number of changes in the subjects themselves. The first analysis (David's interview) is described in detail in order to show the intricacies of the data analysis process that led to the findings in this Chapter, but the subsequent analyses will reflect only the major tensions that are derived from the analysis of each interview and implications for the activity system as a whole. I will also focus mainly on the tensions that exist between the subject (lecturer) and the other components, only elaborating on other tensions between components if they have a significant impact on this discussion.

4.2.1 David's interview (See appendix B)

David has recently been promoted to the position of associate professor and has a special interest in the use of ICT in the teaching and learning process. He claims to be 'self taught' in the field of educational computing and downplays his major role in the historical process of introducing the new technology to the broader university community shortly after his initial appointment as a lecturer in 1998. David speaks at length in the interview of his lowly beginnings as a 'junior' in the Faculty (line 116) and also points out his limited pedagogy during this period. Figures 4.1 and 4.2 on the following pages have been constructed from the codes identified during the process of open coding and are the first example in this thesis of how these codes are mapped onto the Activity Theory triangle. Due to the amount of data on these Figures it was impractical to create a Figure with all of the data on one page. For this reason I have split the data into these two Figures as an initial example only and in subsequent analyses the codes will be provided on a single page (as in Figure 4.3).

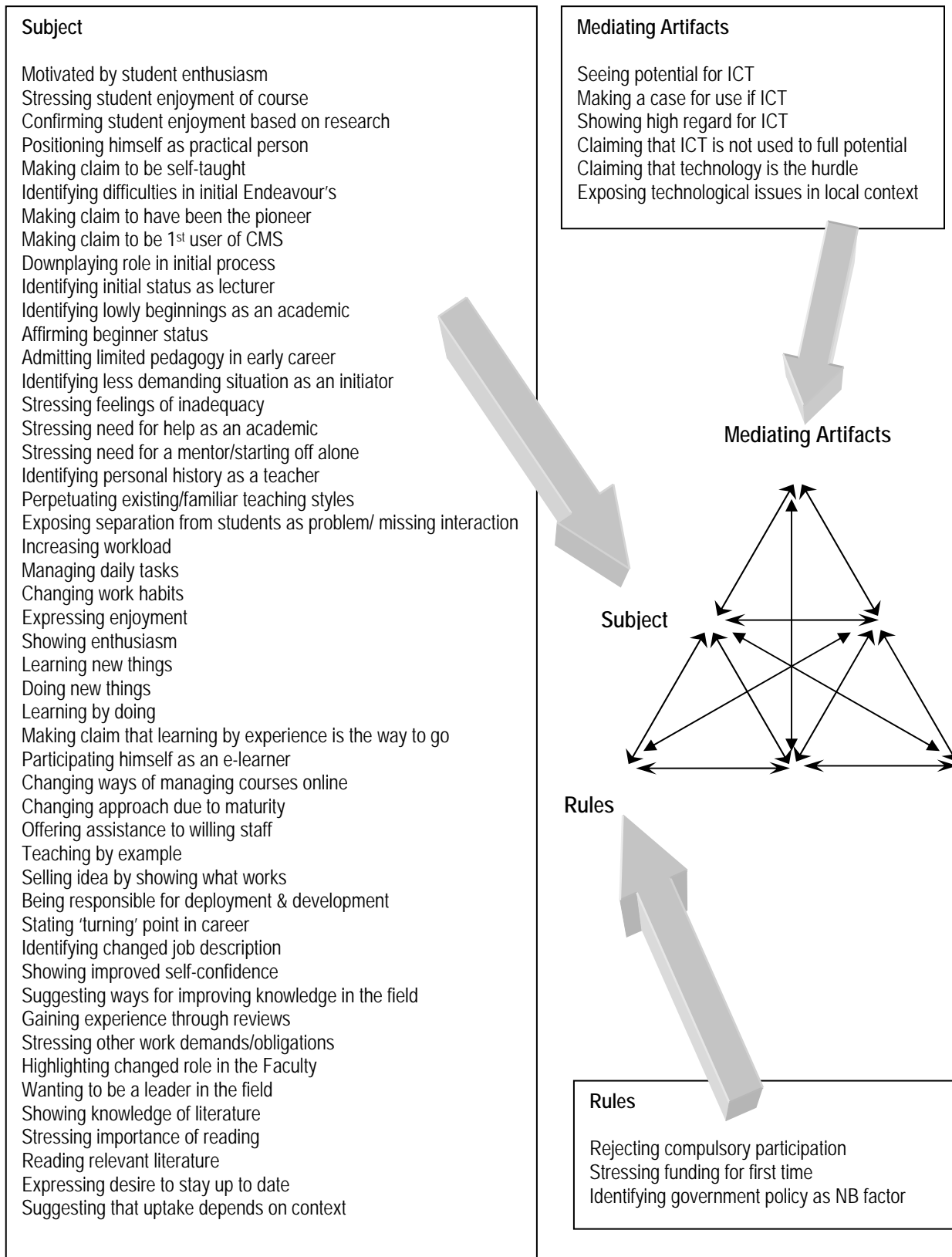


Figure 4.1: Initial codes from content analysis of David's interview relating to the mediating artifacts, the subject, and rules within the activity system

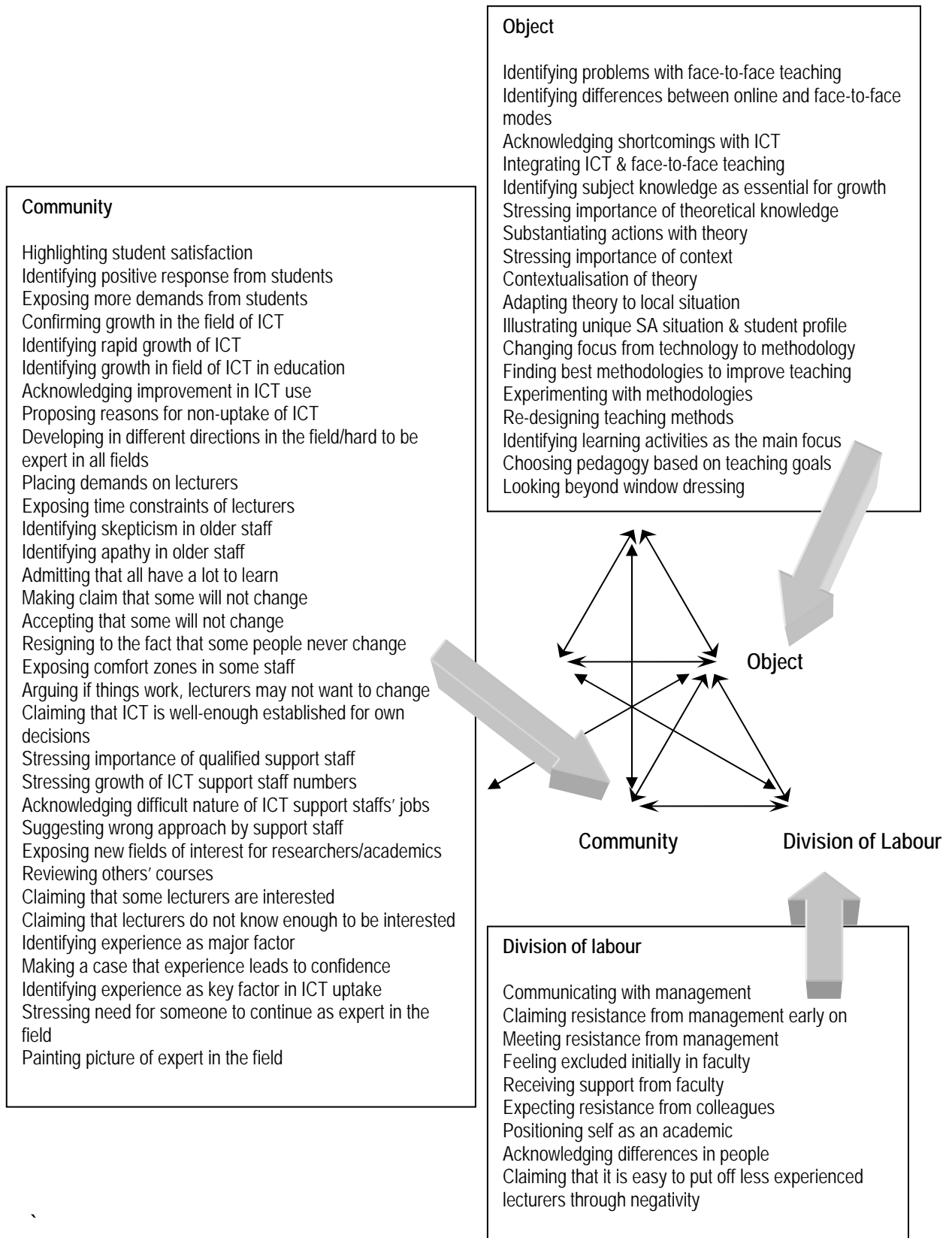


Figure 4.2: Initial codes from content analysis of David's interview relating to the community, division of labour, and the object within the activity system

Subject	Rules	Object
<p>Motivated by student enthusiasm Stressing student enjoyment of course Confirming student enjoyment based on research Positioning himself as practical person Making claim to be self-taught Identifying difficulties in initial Endeavour's Making claim to have been the pioneer Making claim to be 1st user of CMS Downplaying role in initial process Identifying initial status as lecturer Identifying lowly beginnings as an academic Affirming beginner status Admitting limited pedagogy in early career Identifying less demanding situation as an initiator Stressing feelings of inadequacy Stressing need for help as an academic Stressing need for a mentor/starting off alone Identifying personal history as a teacher Perpetuating existing/familiar teaching styles Exposing separation from students as problem/ missing interaction Increasing workload Managing daily tasks Changing work habits Expressing enjoyment Showing enthusiasm Learning new things Doing new things Learning by doing Making claim that learning by experience is the way to go Participating himself as an e-learner Changing ways of managing courses online Changing approach due to maturity Offering assistance to willing staff Teaching by example Selling idea by showing what works Being responsible for deployment & development Stating 'turning' point in career Identifying changed job description Showing improved self-confidence Suggesting ways for improving knowledge in the field Gaining experience through reviews Stressing other work demands/obligations Highlighting changed role in the faculty Wanting to be a leader in the field Showing knowledge of literature Stressing importance of reading Reading relevant literature Expressing desire to stay up to date Suggesting that uptake depends on context</p>	<p>Rejecting compulsory participation Stressing funding for first time Identifying government policy as NB factor</p> <p>Community</p> <p>Highlighting student satisfaction Identifying positive response from students Exposing more demands from students Confirming growth in the field of ICT Identifying rapid growth of ICT Identifying growth in field of ICT in education Acknowledging improvement in ICT use Proposing reasons for non-uptake of ICT Developing in different directions in the field/hard to be expert in all fields Placing demands on lecturers Exposing time constraints of lecturers Identifying skepticism in older staff Identifying apathy in older staff Admitting that all have a lot to learn Making claim that some will not change Accepting that some will not change Resigning to the fact that some people never change Exposing comfort zones in some staff Arguing if things work, lecturers may not want to change Claiming that ICT is well-enough established for own decisions Stressing importance of qualified support staff Stressing growth of ICT support staff numbers Acknowledging difficult nature of ICT support staffs' jobs Suggesting wrong approach by support staff Exposing new fields of interest for researchers/academics Reviewing others' courses Claiming that some lecturers are interested Claiming that lecturers do not know enough to be interested Identifying experience as major factor Making a case that experience leads to confidence Identifying experience as key factor in ICT uptake Stressing need for someone to continue as expert in the field Painting picture of expert in the field</p>	<p>Identifying problems with face-to-face teaching Identifying differences between online and face-to-face modes Acknowledging shortcomings with ICT Integrating ICT & face-to-face teaching Identifying subject knowledge as essential for growth Stressing importance of theoretical knowledge Substantiating actions with theory Stressing importance of context Contextualisation of theory Adapting theory to local situation Illustrating unique SA situation & student profile Changing focus from technology to methodology Finding best methodologies to improve teaching Experimenting with methodologies Re-designing teaching methods Identifying learning activities as the main focus Choosing pedagogy based on teaching goals Looking beyond window dressing</p> <p>Mediating Artifacts</p> <p>Seeing potential for ICT Making a case for use if ICT Showing high regard for ICT Claiming that ICT is not used to full potential Claiming that technology is the hurdle Exposing technological issues in local context</p> <p>Division of labour</p> <p>Communicating with management Claiming resistance from management early on Meeting resistance from management Feeling excluded initially in Faculty Receiving support from Faculty Expecting resistance from colleagues Positioning self as an academic Acknowledging differences in people Claiming that it is easy to put off less experienced lecturers through negativity</p>

Figure 4.3: Initial codes from content analysis of David's interview presented on a single page to facilitate identification of inherent tensions

4.2.1.1 *Tensions between the subject and the greater ICT community*

Focusing on the Figures on the previous pages it becomes immediately apparent by 'ordering' all codes related to the *subject* himself that David is highly motivated by student enthusiasm and his emphasis on student enthusiasm is a prominent part of his discourse during the interview: **"I think the greatest thing that - that - that - made me happy about online learning is the enthusiasm that the students have about it. They really do, they really have fun doing this. And they do things that they've never done before. To them it's innovative. To them it's exciting. To them it opens new doors."** In fact, even when making claims about the greater ICT *community* he seems to want to include students as key members of this group and not only lecturers, support staff and researchers in the field. David emphasises general student satisfaction with the use of ICT in education at the HEI, even confirming these claims with documented evidence based on research (line 355), but immediately exposes the rising number and changing nature of demands from students in recent times due to growth in the field of ICT in education. A major tension that is a driving force in the whole process, in David's opinion, is the rapid growth that is evident in the field of ICT. David mentions this expansion a few times and even goes one step further by stressing that the growth of ICT *in education* should in fact be seen as the main point of departure and not only ICT.

David also points out in his interview that *experience* with the tools of ICT in education is a major factor that may be influential in ICT uptake within the Faculty (line 173, 335). Experience, in his opinion, leads to the confidence that lecturers need to develop in order to engage with the tools of ICT (line 339) and it is this experience that is lacking in the community. David supports this view by relating his experiences as an 'e-learner' in an actual 'online' course (line 165) where he participated as a student and can, therefore, speak with relative authority from the perspectives of both lecturer and student on the topic.

David also makes a number of claims as to why, in his opinion, certain lecturers within the Faculty have not accepted ICT as part of their teaching. Despite the

extra demands placed on lecturers and the impact on their time management, David is quick to point out scepticism and apathy in older staff members. He makes the claim that some will not change and even shows acceptance of the fact that some will not change: **“You need to accept that some people are just never going to do it. They’ve been teaching in one way for thirty, forty years. They are successful, they’re successful as academics, they’re successful as teachers, why would they adopt it?”** David then goes on to claim that it is no longer his brief to ‘sell’ the idea to them: **In the beginning I wanted to convert everybody, now I think I’ve got a bit of a more mature approach and I just think those who want to will and I’ll help them if I can and I’ll support them and be enthusiastic about it, but those who won’t - they must do their own thing.”** He goes on to expose the ‘comfort zones’ that many lecturers have fallen into over the years and argues that if existing methods work, some lecturers are not willing to change their methods of teaching. This tension has the potential to influence a large number of lecturers at the HEI but David claims that he is no longer concerned about this due to the fact that ICT is presently well enough established at the HEI for lecturers to make well informed decisions on their own.

David’s self-admitted changing role in the community is further highlighted by his reference to the growth in numbers of ICT support staff at the HEI. This supports the notion that it is no longer his job and leaves the door open for him to continue as a pioneer in the field by keeping up to date with technological and educational matters and by exposing these new fields to students and lecturers alike. David acknowledges the role that the ICT support staff (who are now based outside of the Faculty of Education) have to play and highlights the difficulty of their jobs. He suggests in the interview that there are a number of well qualified support staff members at the Centre for Teaching Learning and Assessment (CTLA) but there are also a number of support staff members who are perhaps not so well qualified to do the job at present. David then admits that this is not unusual and that all members of the HEI community still have a lot to learn about a number of other issues too. He is, however, of the opinion that in some cases, support staff are still using the wrong approach when dealing with academics: **“I think they’ve got a lot of people that are not interested in what they’re doing. Maybe the way**

that they come across might be problematic. I'm aware of situations where they spoke to heads of departments and deans saying 'now we're going to come and roll out for you' and y'know people find that threatening, they don't want to hear people are going to roll out things on their behalf."

A fourth major tension in this activity system between the subject (David) and the ICT community at large can be seen by the way in which David positions himself within this community. His changing role in the greater community is evident by taking note of how he describes his role as the initiator or pioneer in the field and how he was the first user of a course management system at the HEI. From a self taught, beginner lecturer in a 'new' field at that time, David speaks further of a less demanding environment in the early days and how that has now changed with growing work demands and obligations being the order of the day: **"Maybe there was a little bit of comfort, three or four years ago when I knew I was one of a few people in the country that was doing this kind of thing. Nowadays everybody's doing it."** He speaks of the development in various directions in the field and how it is hard to be an expert in all fields within this community. David does not say it directly but implies that he was once the leader in the field but in the same breath stresses the need for others to continue as experts in the various fields and even paints a picture of how he sees the new 'expert in the field' (line 272). David goes on to highlight his changed role in the community and expresses the view that the field is well enough established now for community members to make their own decisions. By revealing that he still aims to be a leader in the field (line 254), David is still positioning himself within the ICT community as an innovator who has not given up on his role of exposing new educational technologies to the community but has taken on a new role of 'teaching by example' and exposing new fields of interest for academics and researchers.

4.2.1.2 *Tensions between the subject and the object*

The object in this activity system is engagement with the tools of ICT. David identifies a number of issues in his interview that expose contradictions or tensions

between the subject and the object in this process. The first tension is one that is caused by the perpetuation of familiar teaching styles (what David was 'used to' from his own school days and his personal experience of face-to-face teaching at various high schools) where familiar teaching styles are perpetuated and may inhibit the 'uptake' of new technologies in the teaching process at the HEI: **"I was a beginner lecturer at the time anyway, and I came out of a school and it was hard for me to - to get away from this idea of lectures. You know that's what I was used to, that was the example I had all these years, and - and I was perpetuating that."** This is one factor that he believes may play a role in many lecturers' engagement with ICT at the HEI.

David makes the claim to have struggled during early endeavours with ICT within the Faculty and briefly mentions lack of experience during this period. His lack of pedagogy at that time is mentioned and his expressed need for a mentor during his early career as an academic using ICT for the first time in his teaching are clearly expressed. It appears that this distinct lack of a support structure could be the reason why David went out and 'experimented' with various methodologies to improve his teaching using technology. He highlights the change in his thinking from a technological focus to a methodological focus and how to find the best methodologies to improve teaching. By identifying learning activities as the main focus in this process he proposes the selection of pedagogy based on teaching goals and not the other way around: **"I don't think the departure should be... I want to use this kind of pedagogy... I think the departure is this is my – these are my outcomes, this is what I want to do, how can I do that best?** In order for David to do this it was necessary for him to wrestle with the concept of teaching and he did this by firstly identifying problems with face-to-face teaching and then identifying differences between online and face-to-face modes. By addressing this major tension David was then able to identify differences between the two modes of delivery and acknowledge shortcomings that both modes presented for lecturers teaching at the HEI. David's solution to this tension was the implementation of courses and modules presented using a combination of the two modes where he professed to 'learn new things' by simply 'doing new things'. David's dilemma of limited contact with the students with normal face-to-face

teaching and a feeling of separation from the students when they were not in class (line 28) seem to have been addressed by this ‘mixed method’ or ‘multi-modal’ approach.

A major tension between subjects (lecturers) and object (engaging with the tools of ICT at the HEI) that David exposes is their possible lack of theoretical knowledge about the use of technology for teaching and learning. In this regard, David identifies a major shift in his way of thinking about teaching with technology and describes the moment when he decided that all actions must be substantiated with theory. Without actually saying so, David implies that a lot of the work done by lecturers’ at the HEI is done without in-depth knowledge of the theories that underpin the use of ICT in education.

Another tension that is pointed out by this analysis of David’s interview is the tension that exists as a result of lecturers being unable or unwilling to adapt theory to the local South African situation. The importance of context arises repeatedly in David’s interview. David argues that it is essential to contextualise theory and adapt it to the local situation which is very different to many other countries in the world. He also illustrates the unique South African situation by elaborating briefly on the local student profile (line 369). This is something that David seems to have come to terms with but has not been addressed by many lecturers within the Faculty who are still applying methodologies that are based on research within totally different contexts.

4.2.1.3 *Tensions between the subject and the division of labour*

David identifies himself in the interview as the pioneer in the introduction of earlier versions of course management systems at the HEI (line 12) and speaks of initial resistance to the idea during the early stages of the project (line 21). As a ‘beginner lecturer’ in the Faculty he experienced resistance not only from HEI management but also from certain members of the Faculty of Education itself. Feelings of exclusion during this period are accentuated in the interview by David’s concern about a lack of theoretical knowledge and pedagogy during this ‘lonely’

time in his career. David's claim that less experienced lecturers can easily be put off by negativity and resistance from more senior staff highlights the role that senior staff can play in this process (line 360). David's expressed need for a mentor early on in his career and his feelings of starting off alone are testimony to this fact. It is also pointed out that mentorship is not only needed in the technological field but also, as in David's case, in the general academic field.

David also mentions the 'expected resistance from colleagues' and acknowledges differences in lecturers' abilities and interests. Despite coming up against limited resistance he expresses pleasant surprise at the 'change of heart' and the overwhelming support eventually given to him by the Faculty of Education during these early years. David downplays his role in the initial process of introducing the entire HEI to ICT and encouraging the appointment of new staff (line 213) and chooses instead to position himself not as a 'leader in the technological field' but, first and foremost, as an academic. David does not identify any other 'horizontal' divisions of labour within the Faculty (like various subject divisions and disciplines) but (purposefully perhaps?) chooses to see academics at all levels in the same light and as people who are 'all in this together.'

4.2.1.4 *Tensions between the subject and the mediating artifacts*

David repeatedly makes a case for the use of ICT in education. He sees the potential of the technology and expresses high regard for the medium. He does, however, expose in the interview that ICT is still not being used to its full potential at the HEI (line 368). David has 'advanced' along with the technology and positions himself often in the interview as an innovator and still as a pioneer in many areas within the field. His desire to remain up to date with the technology is supported by his hands on approach and his quest to expose technological issues in the local context. Despite David's revelations, mastering the technology itself can still be seen as the lecturers' major hurdle to teaching with ICT in many cases within the HEI.

4.2.1.5 *Tensions between the subject and the rules*

David mentions very little about the rules and policies that guide the use of ICT in teaching and learning at the HEI. This is perhaps due to the fact that he had a major hand in establishing a number of these policies and practices himself, albeit in some cases in an advisory capacity. Government policy is only mentioned once in the interview and David seems to be content with trying to achieve some of these goals in his teaching. Faculty policy does not feature in David's interview and only one tension that does arise in this regard is David's total rejection of the notion of compulsory participation in this endeavour (line 83). He seems to favour the approach of teaching by example and showing lecturers what does and does not work (line 78).

4.2.2 Susan's interview (see appendix C)

Susan is an experienced academic credited with a number of publications in the field of Adult and Higher Education. She has risen through the ranks at the HEI and has served for the past few years as professor and departmental chair, and currently fills the position of Deputy Dean of the Faculty of Education. Susan admits to having very little experience with the use of ICT in education but has experimented briefly with multimodal teaching at the HEI and has never stood in the way of progress in the Faculty, showing both enthusiasm and high regard for the successes of other lecturers in this field. Susan is well aware of the tools of ICT that are available to lecturers at the HEI but her changing role from lecturer to a more specific focus on management-related issues is clearly identifiable in the interview transcript. Codes from the content analysis of Susan's interview transcript may be found in Figure 4.4 on the following page. As in David's example, I have chosen to leave the 'raw' codes in this format and have only rearranged them slightly into loose groups or clusters under each category in order to identify the tensions between components within this activity system.

<p>Subject</p> <p>Revealing field of expertise as learning Exploring notion of dialogue in Higher education Admitting relevance of educational background Showing knowledge of ICT tools Exploring new aspects of ICT in education Expressing comfort with the change Admitting that interest grew as a result of exposure to ICT utilisation in faculty Hearing of successes of other lecturers Being exposed to colleagues using ICT Building on the success of others in the faculty Stressing enjoyment of the unexpected online Making a case for learning new things Expressing interest in new developments in education Changing way of thinking at work Becoming more aware of how she works using ICT Admitting to have NOT done much online Admitting uncertainty due to lack of experience Emphasising lack of experience Admitting lack of experience Professing not to have changed teaching methods Using the same old principles for teaching online Recreating what she has always done on the web Expressing comfort with what works Expressing need for support with large groups Showing concern for large groups with no support Asking for help Suggesting use of trained assistants Placing emphasis on co-inquiry Revealing possible changes in her life / work situation Placing ICT lower down on personal agenda</p>	<p>Mediating Artifacts</p> <p>Claiming to use ICT daily Identifying that ICT should be seen as a tool only Making a case that ICT should not be threatening</p>	<p>Object</p> <p>Distinguishing between ICT for educational purposes and ICT in general Claiming to use Internet for research Restructuring procedures during research Using Internet for day-to-day enrichment Working on many things simultaneously Admitting lack of ICT use for teaching Expressing high regard for ICT in communication Stressing importance of increased communication Stressing use of web for communication Improving communication Stressing importance for feedback Claiming that many students do not have access to ICT / blaming SA context Stressing need for greater student access Claiming success with small postgraduate groups Using ICT in a supportive role Using ICT for support only Helping students to help one another Placing focus back on learning Placing focus on learning</p>
	<p>Community</p> <p>Aiming to form learning communities on the web Establishing learning communities initially through contact Expressing confidence in the web for sustaining learning communities Sustaining communities online Stressing importance of pedagogy Stating that a lack of pedagogy leads to a technical approach Showing awareness of some lecturers perpetuating bad habits online Exposing ICT's potential as a dumping site for content Admitting that lecturer's all think they are experts Stating that lecturers all have something to learn Stressing need for education in the field of ICT Stressing need for support for lecturers Predicting negative situation without support Distinguishing between different kinds of support Acknowledging problems identified by other lecturers Placing demands on lecturers Feeling threatened by ICT Emphasizing time constraints Expressing need for tutors Positioning 'people' as an important part of the ICT environment</p>	<p>Rules</p> <p>Identifying funding as an issue regarding ICT support Showing knowledge of HEI's vision</p>
		<p>Division of labour</p> <p>Focusing on admin and other matters at the HEI Changing focus from teaching to management</p>

Figure 4.4: Initial codes from content analysis of Susan's interview presented on a single page to facilitate identification of inherent tensions

4.2.2.1 Tensions between the subject and the greater ICT community

Susan's positions herself as an educator in her interview and elaborates on the relevance of an educational background for lecturers engaging with ICT in education. She stresses the importance of pedagogy for lecturers within the ICT

community and states that it is a lack of pedagogy that leads to some lecturers adopting a 'technical approach' to ICT in education. She is aware of some lecturers perpetuating bad habits from the face-to-face classroom situation to the online environment and also exposes some lecturers merely using the online environments as dumping sites for content (line 143). Susan identifies a major tension in the ICT community by admitting that, in her opinion, many lecturers think they are experts in a variety of fields when in fact they still have a lot to learn. Susan's disclosure of her knowledge of the pedagogical limitations of certain lecturers within the ICT community and her subtle insinuation about the need for further education in the field of ICT within the community reveals her specific leadership style and approach regarding this tension. In other words, Susan plans for the Faculty to move ahead in this field through education itself.

On a personal level, Susan admits changing the way she thinks at work. She reveals that by using ICT in her day-to-day tasks she has become more aware of *how* she works (line 50). She does, however, also reveal that she has not done much teaching online as such and puts this down to an 'uncertainty' that may be due to lack of experience. In fact, she reveals lack of experience with teaching with ICT as a major factor at least three times in the interview (lines 52, 133, 152). Susan advocates more support for lecturers in the ICT community as a possible solution to this shortcoming. She displays her knowledge in this regard by distinguishing between a number of different kinds of support that can be offered within the Faculty and paints a picture of the negative situation that could arise as a result of a lack of lecturer support.

4.2.2.2 *Tensions between the subject and the object*

Susan reveals in the interview that she has become more aware of how she goes about her daily tasks at the HEI using ICT. Even though she distinguishes between ICT for educational purposes and ICT in general, she admits to have not done much 'teaching' online. Her engagement with the tools of ICT seems to be restricted to using the Internet for personal research, gathering of information for day-to-day enrichment of administrative and managerial tasks, and

communication. In fact, Susan elaborates often on her high regard for ICT in communication.

When mentioning teaching online using ICT Susan claims relative success with small postgraduate groups (line 79) but expresses the need for support with larger groups (line 91) even though she has not yet attempted to teach a large group online. She bases this belief on the experiences of other lecturers who have such experience and in doing so shows that she is aware of certain limitations of teaching online and that she has made a conscious effort to keep up to date with events within the Faculty. In her personal capacity, however, Susan professes not to have changed teaching methods that have worked for her in the past in traditional classroom situations. She is still using the same 'old' principles for teaching online, basically recreating what she has always done on the web: **“I can't really say I've changed my way of teaching, I found the WEBCT, the umm... and the web in itself very useful as a tool to enable this inquiry and exploration process.”** She expresses comfort with what works for her and ascribes this to her knowledge and experience in education in general. As mentioned before, Susan professes to only want to use ICT in a supportive role for providing feedback to students and for improving class communication. It is, therefore, not clear to me from this interview how she plans to put the focus back on 'learning' without engaging with the tools of ICT for teaching purposes.

4.2.2.3 *Tensions between the subject and the division of labour*

Susan reveals possible changes in her life which is also indicative of her work situation at the HEI. By focusing more on administrative and managerial matters within the Faculty of Education she has forced herself to place ICT lower down on her personal agenda and is unsure of whether or not she will need to actively engage with the tools of ICT in her teaching in the near future. Susan's expressed interest in new developments in education is a positive sign and suggests that her changing focus from teaching to management within the Faculty will not have a negative influence on those lecturers who are actively engaging with ICT in their teaching. Her support in this regard has already been mentioned.

4.2.2.4 *Tensions between the subject and the mediating artifacts*

Susan claims to use ICT daily at the HEI and backs up this claim by exhibiting knowledge of a number of ICT tools that are currently being used at the HEI. She professes to actively explore new aspects of ICT in education and identifies that ICT should only be seen as a tool in this process. Susan admits that her interest in ICT in education grew as a result of exposure to ICT utilisation by lecturers in the Faculty and from hearing of their successes in this field (line 209). She then goes on to make a case that ICT should not be threatening which may reflect that it is indeed threatening to herself and many others within the Faculty. Later in the interview, Susan indicates that lecturers should not worry too much about this 'threat' by revealing that she positions 'people' as perhaps the most important part of the ICT environment and not the tools of ICT themselves.

4.2.2.5 *Tensions between the subject and the rules*

Susan exposes another major tension by expressing the need for lecturer support in a number of contexts regarding teaching with ICT. In her case, help is needed with large groups and she makes the suggestion of using trained assistants in this matter. On the other hand regarding the rules, Susan identifies funding as the one issue that may influence the establishment of ICT support within the Faculty. She fortunately also reveals her knowledge of the HEI's vision regarding multi-modal teaching and the support that this receives from higher management at the HEI. Funding and other issues of power are, therefore, unlikely to be of great concern in the near future.

4.2.3 Brian's interview (see appendix D)

Brian is a senior professor within the Faculty of Education and perhaps one of two lecturers with a strong grounding in quantitative research methodology, the methodology he teaches and uses in the online module he conceptualised and developed. Brian chose to call in the help of the newly constituted Centre for Teaching Learning and Assessment (CTLA) at the HEI and jointly conceptualised and created the course with this team of instructional designers and developers whose main brief it is to assist lecturers within the HEI with multi-modal teaching. A major project of this nature was a first for the Faculty of Education where a number of relatively simple courses have been designed and developed 'internally' by the lecturers' themselves in the past.

Figure 4.5 which depicts the initial codes from content analysis of Brian's interview may be found on the following page.

<p>Subject</p> <p>Wanting technical ability to update online courses alone Being personally involved / Learning by doing / Doing new things / Initially feeling uncomfortable with new procedures Actively involved in conceptualising course Showing knowledge of the development process Claiming to be the origin of all ideas Being forced to think in-depth and creatively Admitting to learning 'unconsciously' Knowing what he wants to do Not wanting to make excuses Showing exceptional knowledge of course content / Elaborating on course content / structure of content / Concentrating on explaining course content & important concepts Wanting to expose important issues to students Designing to cater for unique SA context Identifying content students usually struggle with / Catering for weaker students too Claiming success at making content clearer to students Claiming that learning is not always easy Identifying early roots as teacher Remembering how he taught concepts as a teacher at school / Remembering knowledge of teaching from early career as teacher Admitting to having tried different ways of teaching in the past / Expressing boredom with the way he taught in the past Stating that he had never thought of teaching online Striving to be a better teacher / Exposing fear of being a poor teacher Acknowledging satisfaction with animations and design / Showing enthusiasm about representations that are possible online Making claim to be creative / positioning himself as a creative person Wanting to do something different and new Vowing not to stop learning new things Identifying multiple activities in a course Exposing difficulty of teaching online Moving away from playing the central role Moving away from 'sage on the stage' Admitting to a lot more marking / work Expressing new excitement in his work Unable to explain what excites him Claiming that he can judge if a teaching style works or not Being positive about the outcomes of the course / Showing pride in modules Showing amazement at what he has done Speaking as one who has mastered something</p>	<p>Mediating Artifacts</p> <p>Making conscious decision to use ICT Expressing amazement at the technology Being impressed by animations / wanting more animations Predicting improvement in online facilitation Putting ICT before other work tasks Prioritising daily tasks to include ICT Expressing frustration with technical issues</p>	<p>Object</p> <p>Attending WebCT courses Identifying limitations in WebCT courses Putting a course online Making initial changes to course Doing voice-overs for content Placing some content on CD ROM Getting involved with development process Conceptualising innovative ways to teach basic concepts online / Identifying novel ways to teach basic concepts online Finding new ways to teach / rethinking concepts Claiming improved subject knowledge through design of online course Claiming that teaching multi-modally is better Describing multi-modal strategy Wanting course to be accessible to all Expressing desire to do more advanced things in future Wanting more interaction and active participation Proposing ideas similar to online tutorials Simulating real life activities Finding similarities between face-to-face and online teaching Re-conceptualising courses / planning to make changes to course Planning online assessment Wanting to explore ICT in more detail through research</p>
	<p>Community</p> <p>Finding increased contact with students beneficial Claiming that good students will benefit more Forcing students to get involved practically Making students responsible for their own learning / Getting students to work / Highlighting students having to work Learning from students Expressing unfamiliarity at having limited control over student work Focusing on concepts and not the design Claiming that lecturers procrastinate Confirming that lecturers can be motivated through seeing examples of what is possible Saving time through team work Being given the space to be creative will assist lecturers Making claim that lecturer's biggest deterrent is fear Proposing that some lecturers will learn by simply getting involved Admitting that other lecturers will learn differently Making claim that ICT may not benefit every lecturer Questioning whether lecturers really change their approaches to teaching Expecting different experiences from various lecturers Suggesting that forcing lecturers may be the answer / Claiming that forcing some lecturers may not work Claiming that not all lecturers will be excited</p>	<p>Rules</p> <p>'Having' to put course online Being approached to 'convert' others Placing financial demands on HEI not faculty Identifying forces / powers within HEI Exposing demands from management Seeing encouragement as 'subtle force'</p>
		<p>Division of labour</p> <p>Identifying changing role of the lecturer Getting technical support from CTLA Using support from outside faculty Acknowledging role of the design team Identifying team work through his discourse</p>

Figure 4.5: Initial codes from content analysis of Brian's interview presented on a single page to facilitate identification of inherent tensions

4.2.3.1 *Tensions between the subject and the greater ICT community*

Brian speaks at length during his interview exclusively of the students and the lecturers as the major role players in his ICT community. There is no mention of any other external factors influencing this community except for the Centre for Teaching, Learning and Assessment (CTLA) who assisted him in the design and development of his multimodal module at the HEI. Very little of his discourse about the design and development phase mentions the CTLA's role in the HEI community as such and so I have preferred to include any further discussion of the CTLA's role under the 'division of labour' section. By not including this department that was set up at the HEI to assist in the design and development of multimodal modules within the HEI as part of his community, Brian may be 'revealing' some hidden tensions that have arisen between himself and the CTLA during what he describes as a new phase in his career.

Brian's main motivating factor emerged in the interview as *wanting to be able to update his own online modules* and being personally involved in the day-to-day running of the course. His personal approach, which includes being personally involved (line 35) and learning by doing,' is also clear from the initial analysis of the data and manifests itself in direct contrast to how he views a large portion of the lecturers within the Faculty. He sees the lecturers within the Faculty as a group of people with a fear of the technologies, who procrastinate (line 18), and who need to be motivated or coerced into active involvement with ICT in their teaching: **"maybe the best way is to force you... because then you... you just got to do it."** He does not see himself as any better than these lecturers and only describes himself as someone who 'knows what he wanted to do, who was not willing to make excuses and just started doing new things even though he was initially uncomfortable with the change in his teaching and the new procedures that he had to adopt. This tension, in Brian's opinion, may be addressed by giving lecturers within the Faculty the space in which to be creative and by letting them simply engage with the tools of ICT and be involved. He admits too that not all lecturers will benefit from using ICT in their teaching and claims that if they do, each lecturer will experience the process differently.

Another tension that is exposed by Brian is the tension that exists between himself as a lecturer with exceptional personal knowledge of the content he wishes to carry across to the student and the students who have to make a totally new mind shift in order to be taught in this 'new' way: **“This is not an easy pattern I am working in now, because the students are going to ask you questions. They are going to get stuck, and they are going to get frustrated, but nobody said learning is easy.”** By elaborating frequently throughout the interview on course content and how he plans to structure it in order to explain and teach important concepts Brian exposes sensitivity to the needs of students at the HEI. He admits to wanting to adapt his teaching for the unique South African context by focusing particularly on concepts that these students traditionally struggle with. He also admits to wanting to help the 'weaker' students and claims in the interview that he already has achieved some success at making the content clearer to the students. On the other hand Brian predicts that the 'better' students will actually benefit more from this approach perhaps widening the gap between themselves and traditionally weaker students. Brian explains this tension further by admitting not only having to change his traditional lecturing approach, where he played a central role, but to enforcing a situation where students are made responsible for their own work. He mentions students having to get practically involved, hinting perhaps at the lack of student involvement in the traditional face-to-face lectures at the HEI. In fact, 'Getting students to work' arises as a theme throughout the interview with Brian. Expanding on this tension, Brian mentions that he also learns a lot from the students when teaching with ICT but expresses unfamiliarity at having such limited control over student work.

4.2.3.2 *Tensions between the subject and the object*

Brian claims that doing new things is never easy. He identifies his early roots in education as a teacher who had always tried out different ways of teaching in the past. When thinking back about how he taught during his early career as a teacher, he expresses 'boredom' with some of the teaching strategies he implemented in the past and highlights that he has always wanted to be a better teacher. Even now he admits to wanting to be a better teacher at the HEI. Brian

admits that teaching using ICT had never occurred to him until recently when he found that this 'new ' approach forced him to think in-depth and creatively about his teaching. Reading between the lines I argue that it is in many cases this stagnation and petrified vision of teaching that inhibit lecturers' engagement with ICT in their teaching at the HEI. It is this tension that Brian was able to overcome by attending courses to learn about ICT and actually creating his own multi-modal module. Brian recommends active involvement in all aspects of the conceptualisation of a course. He describes involvement at many levels ranging from the conceptualisation of innovative ways to teach basic concepts using ICT to active participation in technical issues like creating the voice-overs for segments of content. By doing this Brian was able to improve his own subject knowledge: **“And I think I do understand my quantitative research better now... after having designed this... on the web... I've been forced to think deeply and creatively about concepts that before... we just accepted... and we didn't really think about it, ... now that was a great learning experience.”** He was also able to explore new teaching strategies, and place himself in the position to claim that, in his opinion, the multi-modal model of teaching at the HEI is better for all involved.

Brian claims that he has always been a creative person and reveals that he is enthusiastic about the many possibilities that using ICT in his teaching has exposed. Simple animations and good instructional design, for example, have inspired him to want to do much more. He expresses the desire to engage with more advanced components of ICT in the future in order to create more interaction and opportunities for active participation by the students. He is, however, proposing to use multimedia tutorials and simulations which require rigorous instructional design, and development on a level that is way above what he has utilised up to this point. Brian also indicates his resolve to attempt to utilise online assessment in future courses. This tension promises to result in further tensions being exposed, as a result of Brian's work in this field, between various other components of the activity system; most notably between the HEI management and Faculty management (division of labour) and the ICT and financial policies of the HEI (rules).

Brian's positive views on the outcomes of the course and his expressed pride in what he has created are clearly evident when he speaks later in the interview in the manner of 'one who has mastered something' and is showing great self confidence. This creates a final tension between himself (the subject) and his engagement with the tools of ICT (object) that he aims to address by re-conceptualising his multi-modal modules, and by exploring the use of ICT in education through research.

4.2.3.3 *Tensions between the subject and the division of labour*

Brian claims in the interview to have been the origin of all ideas used in the course: **"They came from me, they are my ideas. They certainly... I had read about them in the literature, and they came from me, but even then, I could see as a teacher when I did these, they worked very well, and yet, I've never thought of using it at this level."** He affirms this creativity elsewhere in the interview and admits to knowing what he wants to do, basing this knowledge on his long background in education. The tension that led Brian to seek technical support from the CTLA, which is a separate department within the HEI with no special affiliation to any particular Faculty or Department, can be identified from the interview as the 'changing role of the lecturer' at the HEI. Brian knew what he wanted but had to approach ICT support staff from outside of the Faculty to achieve these goals. He knew he could not do it alone and acknowledges the role of the design and development teams in the interview. The use of the term **"we"** throughout most of the interview clearly points to a team approach.

Brian did not mention expertise and knowledge of ICT of colleagues within the Faculty of Education at all during the interview. When asked about this at a follow-up meeting, Brian disclosed **"there is no way I can use up you guys time for my benefit. Us lecturers here in this Faculty are already so swamped with work... who needs to put up with someone else's (expletive)? Let's rather use those who are getting paid to do the job even if they do not always have the answers. It's their work... Just a pity they don't always have an**

educational background.” The pressures exerted on the lecturer due to their changing roles within the HEI can therefore, be seen as the tension that led Brian to exploit the ‘division of labour’ during the development of his course.

4.2.3.4 *Tensions between the subject and the mediating artifacts*

Brian speaks in his interview of the difficulty of teaching using ICT, mentioning the increased workload and having to totally change his methods of teaching as two important factors. Despite this he discloses a ‘new excitement’ in his work that he is unable to explain: “**...in the last ten years I think it’s the most exciting thing I have done... and I can’t really tell you why, but it’s something that excites me, something I got hooked on. And you just can’t leave it, you want to finish it, so I will put that before a lot of other things... I would push meetings one side to do the web just to get it correct.**” This excitement is perhaps the tension that led him to making a conscious decision to use ICT in his teaching in the first place. He also expresses amazement at the technology while at the same time expressing frustration at certain technological issues. This could be seen as a second tension that drives Brian to embrace ICT in his work. These two distinct tensions can be seen as the key factors that have led to Brian’s acceptance of the tools of ICT and can help to explain why he now puts ICT before other work tasks on his personal agenda and why he now prioritises daily tasks to always include his multi-modal course.

4.2.3.5 *Tensions between the subject and the rules*

Brian mentions in his interview “having to put courses online.” This indicates a stronger force that is playing a role in this activity system. He talks about ‘wanting to’ and ‘vowing not to stop doing new things’ but also implies that ‘having to’ reflects forces from above. He even refers to these forces as “powers” within the HEI and points explicitly to one of these powers when he talks about ‘demands from management’ during the interview. He exposes the hierarchy and power relations that exist by also mentioning the policies that mandate that the financial demands of ICT are placed on the HEI itself and not directly on the Faculty.

A further tension that exists is one that became evident due to Brian's success with using ICT. Encouragement from Faculty management is described by Brian as "subtle force" that is directed on him to inspire and motivate other lecturers to follow in his footsteps; something he is not willing to do: **"So I think there is this type of force... make no mistake... I see it from the Head of Department who... I can't say is forcing me, but does encourage me tremendously. But there is a reason behind this encouragement, and I think the reason may be to get other people online."**

4.2.3 Mark's interview (see appendix E)

Mark is a senior lecturer in the Faculty of Education who has limited experience in teaching multi-modal courses with small web-based components. He has seen ICT implemented in a number of courses by other lecturers within the Faculty and is aware of both success and failure in this regard. In his interview, Mark steers away from talking too much about himself and this is evident in the relatively small number of codes under 'subject.' He, in contrast to previous lecturers, chooses to focus more on the other components of the activity system, which may point to him 'still standing on the outside looking in.' It does appear from this initial analysis that this is the case and that, even though Mark has dabbled with teaching using ICT in the past, placing himself as a key component in this system will only be realised when he stops seeing ICT as 'someone else's field' and rethinks his own first encounters with ICT.

The initial codes from the analysis of Marks interview may be found on the following page in Figure 4.6.

<p>Subject</p> <p>Recognizing early adopters of ICT Following on in footsteps of other lecturers Claiming to be initially uninformed about using ICT / Making claim that he does not know enough about ICT Highlighting lack of knowledge of ICT as main cause of failure Attempting to improve interaction / Wanting more contact with students / Exposing limited contact with students Wanting to increase participation Not coping, even with tutors / exposing problems with large groups Expressing need for gradual staff development / staff training Learning by doing Claiming (wrongly) that CD ROM tutorials are always well developed Accentuating 'teaching' aspects online Seeing education as 'interaction' Exposing a variety of issues related to ICT and teaching in general Questioning what ICT can do that face-to-face cannot (value added) Putting himself in shoes of students Revealing greater work demands Placing blame on lack of time Going back to what worked in the past</p>	<p>Community</p> <p>Highlighting student interaction with one another Exposing forms of cheating online Overloading students with content Overloading students with links Neglecting students due to sheer numbers Claiming that lecturers at HEI should note logistical problems of students Identifying SA context and student demographics as a problem for ICT Exposing lack of infrastructure / logistical problems Experiencing technical problems from home Exposing students lack of theoretical knowledge about ICT Claiming that ICT only helps the better students / exposing totally different nature of the learning process for students Claiming that some lecturers will not change ways of teaching / Repeating online what lecturers did face-to-face / acknowledging low numbers of lecturers using ICT effectively Exposing lecturers' different approaches Claiming that lecturers do not know enough about ICT / Claiming that lecturers do not have theoretical knowledge of ICT / exposing lack of use of ICT due to lack of knowledge of ICT and education Identifying poor pedagogy by some lecturers online / Needing to adapt pedagogy to teach online Revealing that some lecturers use trial and error when teaching online Losing interest due to failed attempts Stating that all lecturers should have basic ICT skills Claiming that lecturers learn from experience</p>	<p>Object</p> <p>Focusing initially on applying technology Reproducing study guide on the web Printing out assignments for assessment Identifying duplication of work online Streamlining courses / Limiting ICT interface Using only private communication Proposing the use of CD ROM's with tutorials</p>
<p>Mediating Artifacts</p> <p>Seeing ICT as a field on its own Admitting that ICT is suitably established at the HEI Expressing uncertainty as to ICT's usefulness at present Identifying incorrect use of ICT initially Claiming to have a lot to learn about ICT Not using full potential of ICT Shifting focus to ICT for communication Using ICT for admin purposes Identifying other components of ICT Proposing getting basic ICT structures in place</p>		<p>Rules</p> <p>Raising issue of making ICT use compulsory Making claim that ICT is not yet compulsory Making some tasks compulsory Identifying no difference from compulsory participation Showing knowledge of ICT policy at the HEI Raising the issue that student numbers are a barrier to ICT</p>
		<p>Division of labour</p> <p>Seeing ICT as someone else's field Suggesting that ICT is not all lecturers field of expertise / Claiming that not all lecturers can teach with ICT Claiming that ICT support staff approach all problems from a technical point of view Exposing lack of educational background of support staff x2 Suggesting faculty-based support Learning from educational ICT expert within faculty</p>

Figure 4.6: Initial codes from content analysis of Mark's interview presented on a single page to facilitate identification of inherent tensions

4.2.4.1 *Tensions between the subject and the greater ICT community*

Mark, like many of the previous lecturers in this Chapter, identifies only the students and the lecturers as members of the greater ICT community. There is no mention of leaders in the field, researchers and other key members of this community. Mark chooses instead to focus on the ICT community within the Faculty itself and does not look beyond these boundaries. By 'putting himself in the shoes of the students' he is able to see things from their perspective and identify a number of tensions that affect his role as lecturer at the HEI. For example, by wanting to improve interaction with the students and striving to improve participation in the learning events Mark initially overloaded students, firstly with content (line 27) and subsequently with links to the Internet (line 42). He found himself neglecting the very students he had set out to help mostly due to sheer numbers of students online. He also identifies the logistical problems of South African students with regard to Internet access, access to computers, and speed of Internet connection and also speaks of the student demographics as a barrier to using ICT in teaching at the HEI.

Another tension is caused by the students' lack of theoretical and practical knowledge of ICT in general. Mark questions what ICT can do for the students that other methods of teaching cannot do and even professes that if no value is added to the process then lecturers are wasting their time. He goes on to claim that ICT exposes a totally different learning process to the students and that, in his opinion, ICT will only help the better students: **"I very soon realized that the same pattern emerged and that's that the good student, the one that really wanted to learn according to my perception uhm, those are the people that make contact with me, those are the people that went to the sites, those are the people that got more information, those are the people that gave in enhanced assignments."** This seems to help remove the myth that it is only logistical problems that affect the performance of South African students in multi-modal courses.

Mark admits to 'not coping' even when making use of tutors with large groups in his online courses. He puts this down to 'not knowing enough about ICT' and being 'initially uninformed' about the use of ICT in teaching and learning. He expresses the need for gradual staff development through training and supports the idea of 'learning by doing' that has arisen in a number of previous analyses in this Chapter. When discussing the lecturers within this ICT community Mark claims that some lecturers will not change their ways of teaching and are merely repeating online what they normally do face-to-face. He also exposes a variety of different approaches used by the lecturers within the Faculty and claims that only a small percentage of these lecturers are using ICT effectively. He ascribes this to a general lack of knowledge about ICT and also limited knowledge of ICT in education: **"my perception is that, there, there are people in the Faculty, quite a number of people in the Faculty that don't stick their hands in there because they don't know how, they don't know what it is, myself included."** Poor pedagogy online is mentioned and Mark suggests that there is a need for lecturers to adapt their ways of teaching using ICT.

4.2.4.2 *Tensions between the subject and the object*

Mark admits to following in the footsteps of early adopters of the technology who happened to be 'around' within the Faculty at that time. He admits further to see education as 'interaction' but ended up focusing on applying technology (line 15) in place of teaching efficiently online. He mentions reproducing study guides on the web and duplicating a lot of work that could have been done in a classroom situation (lines 25, 37). Initial engagement with the tools of ICT was, therefore, dominated by this technical approach and led to the streamlining of Mark's courses where he cut down on content and limited the course management system's user interface (WebCT) by limiting the number of options available to students. The fact that some of these endeavours also did not work confirms once again to Mark's claim that he still does not know enough about ICT in education.

4.2.4.3 *Tensions between the subject and the division of labour*

Mark sees ICT as ‘someone else’s field of expertise: **“we don’t understand the epistemologies and methodologies etc. because in many cases it’s not our field of expertise”** and **“I don’t think everybody or anybody has the time or energy to really get stuck into that field because it’s a field on its own...”** He claims that not all lecturers have the necessary theoretical knowledge about ICT in education and claims that this is the reason why not all lecturers succeed in this process. The lecturers’ different levels of expertise and knowledge in the field can, therefore, be seen in this case as one tension that drives the activity system. A second tension is identified when Mark repeatedly identifies the lack of educational background that is evident in ICT support staff at the HEI: **“I like the people and I have no problem with the people, but they don’t... they’re not in our situation, and don’t know our students, they don’t know what the students are like.”** Technical ability of support staff according to Mark is adequate but he claims that approaching teaching-related problems from a technical point of view is not the right way to go. He calls for a Faculty-based support team and bases this request on his previous experiences where he was able to learn a lot from an ‘educational ICT expert’ from within the Faculty (David). I have already elaborated on David’s changing role within the Faculty in the analysis in paragraph 4.2.1 and can also point out the recurring theme of ‘limited time’ and ‘extra workload’ that arises in every subsequent analysis. A Faculty support team would then have to be made up from new appointments and this has financial and ‘power’ implications that will once again have an impact on the rules and division of labour that form part of the greater Faculty activity system.

4.2.4.4 *Tensions between the subject and the mediating artifacts*

Mark sees ICT as a ‘field on its own’ (line 151) and concedes that it is now suitably established at the HEI. On the other hand, he questions its usefulness at present and bases this stance on the number of lecturers not using ICT to its full potential for teaching and learning: **“I know one or two people who are using it, but at this point in time I think there are less people using it uhm, or ready to use it**

then there should be.” He claims to have temporarily gone back to using ICT for administrative purposes only in his day-to-day tasks and proposes getting ‘basic ICT structures in place’ first before trying again. He is still playing around with the idea of using ICT for improved communication in his courses and also mentions wanting to use CD ROM based tutorials based on the (wrongful) idea that all CD ROM based tutorials are well developed. He also does not mention whether he is going to design these tutorials himself or purchase generic tutorials from a vendor. For the time being he claims to be going back to ‘what worked in the past.’

4.2.4.5 *Tensions between the subject and the rules*

Mark raises the issue of making the use of ICT in education compulsory. He claims that by forcing lecturers to comply, through the implementation of more stringent policy documents, students will by default be obliged to take part in this process. He then raises the issue that, in his opinion, student numbers remain a barrier to ICT in education. This is in direct contrast to the other lecturers’ seeing ICT as the solution to high numbers itself. In his discussion, Mark shows adequate knowledge of ICT policy at the HEI but in this interview it seems to me as researcher that he is raising a lot more questions than answers.

4.2.4 Ellen’s interview (see appendix F)

Ellen is a senior professor in the Faculty of Education with a special interest in human learning who has embraced ICT with open arms. She admits to what she terms “selfish reasons” for engaging with the tools of ICT and claims that she initially got involved in order to research human learning with technology. Ellen portrays herself in this interview as the ‘brave protagonist’ who is ‘fighting the good cause’ in support of ICT in education but does not position herself as a leader in this process. She rather comes across as an *explorer* with an agenda to do research and to find out more about human knowledge and how ICT can play a role in this process of teaching and learning.

<p>Subject</p> <p>Revealing short 5 year history with computers / Seeing tremendous growth in herself / Learning from experience Exposing growing confidence Claiming to be self taught in many fields Claiming selfish reasons for engaging with ICT / Wanting to research human learning with technology Becoming more creative / Creativity infusing into teaching / Expanding possibilities for teaching Unable to identify what attracted her to ICT in education / Telling story of life-changing events / Telling story of changing focus over many years Revealing pleasantness of initial attempts online / Expressing excitement Finding process hard / Expressing hard work Admitting to doing too much Exposing personal limitations with software Being 'put off' temporarily Changing what did not work in the past Learning from previous mistakes Showing knowledge of good practice with ICT in education / Changing whole way of thinking about teaching with ICT / Changing way of thinking about education Expressing knowledge of her general epistemology / Not having to change epistemology online Exploring her pedagogy of learning with ICT Expressing knowledge of teaching / Stating that pedagogy cannot be learned from books / Claiming that changing pedagogy impacts on everything else Admitting to have attended ICT courses earlier on / Criticising focus of earlier courses / Rejecting the idea of starting with formal courses Expressing need for guidance / Needing very specific support / stating that working alone is unhealthy / Needing educational ICT expert x2 (security) / Expressing insecurity if left to own devices / Needing to know there is backup & support Seeing theoretical links to ICT at conferences / Needing research to be done to understand ICT / Highlighting limitations in methodology to research ICT in education Not wanting to teach basic computer skills Aiming to publish more on the web Isolated for many months due to faculty conflict / Affirming her strength Expressing surprise at lack of ICT uptake in faculty Comparing blended learning to a stew Stressing interaction in education Cautious of new ICT opportunities Showing preference for post graduate students / smaller groups</p>	<p>Mediating Artifacts</p> <p>Expressing fascination with ICT / Seeing ICT as a scary experience Understanding ICT but not technically proficient / Making distinction between technology and learning Finding link between learning & e-learning Rejecting idea of only using face-to-face teaching Wanting badly to get involved with ICT 'Living on the web'</p>	<p>Object</p> <p>Stating that knowledge of teaching cannot just be transferred to ICT Wanting to transfer content directly into ICT course / confirming cannot be done Identifying problems with good design & poor use of ICT Streamlining second attempt with ICT Refining / reinventing courses Using WebCT tools more smartly Experimenting with tools in WebCT Implementing smaller ICT component Matching approach with what she wants to teach / Changing pedagogy by blending methodologies Planning teaching events Combining face-to-face with ICT Becoming more flexible in the design process Conceptualising collaborative course online x2</p>
<p>Community</p> <p>Stressing student engagement, freedom, & security Finding more value in student talk that faculty talk Identifying changes in the minds of students Identifying students' misuse of the tools / need for computer literacy and CMS training Remembering conflict situation with students Claiming that lecturers do not know enough Exposing lecturers' fear of change / some will not change Claiming that lecturers cannot be forced / not everyone will engage with ICT Recommending teaching by example / faculty show and tell events Exposing need for mentors Proposing learning by doing / stating that pedagogy will change only due to hands-on experience / proposing learning by experience / experience is the key Invited by colleague to do ICT research in education Associating with international leaders in the field / Involving subject experts online / Revealing contact with well known authors and researchers online / contacting subject experts online</p>	<p>Division of labour</p> <p>Affirming senior status in faculty Moving over from different field in faculty Rejecting role of CTLA / Exposing shortcomings of support staff / lack of theoretical knowledge / Support staff taking the heart out of technology / criticizing non-faculty support staff / showing uncertainty in abilities of support staff / admitting she would not use support staff / showing concern at CTLA contributions at conferences Claiming not all work in faculty is good Affirming good ICT work in faculty of education / proposing high quality work and research x2 / Exposing potential for research on learning Impressed with open, vibrant educational ICT community in department / feeling comfortable in micro-situation in faculty Trusting educational ICT staff only / Working with staff with teaching background only / becoming part of a community that promotes thinking / Enjoying an active community / Stressing importance of belonging to a healthy community Identifying staff aggression as reaction to threatening situations / Noticing negatively changing attitude of colleagues at others success / Claiming to have been victimized by colleagues / Expressing suffering at the hands of colleagues / Identifying bias in gender issues / Identifying conflict in faculty over ICT</p>	
<p>Rules</p> <p>Mentioning government policy Showing knowledge of HEI policy on ICT Recognising that requirements for ICT are spelled out by HEI policy Revealing power relations at HEI / 'will not give credit where credit is due' Exposing policy makers as non-educators Identifying publication on the web as an achievement Recommending applying for research funding Claiming that SA cannot afford to stay behind Making technological / financial demands on students</p>		

Figure 4.7: Initial codes from content analysis of Ellen's interview presented on a single page to facilitate identification of inherent tensions

4.2.5.1 *Tensions between the subject and the greater ICT community*

Like most of the lecturers interviewed in this inquiry, Ellen includes students as part of her greater ICT community; going so far as to state that recently she was finding more value in *student talk* than in *Faculty talk*. This is perhaps not an indication of her distancing herself from the rest of the Faculty, but rather an indication of her changing field of interest with a focus on how students learn using the tools of ICT. On the other hand, however, it could also be an indication of Ellen's response to a conflict situation (line 350) with students that was resolved but led to a great deal of animosity between herself and colleagues at the time who felt that she had done some damage to the course and students alike. Ellen's focus on the students could also be ascribed to lecturers' fear of change at that specific time of her engagement with ICT and their negative attitude towards trying something new. This tension will be discussed further as a tension between Ellen and the division of labour within the HEI community.

Lecturers' form the second component of Ellen's ICT community at the HEI. Ellen claims to see tremendous growth in herself and describes herself as one who has learned from experience. Her growing confidence with the tools of ICT has also led to newfound creativity which has also manifested itself in her teaching. In direct contrast to Ellen are a group of lecturers within the Faculty who are afraid of change and some who go so far as to state that they probably will not change. Ellen claims that some lecturers cannot be forced (line 323) as not everyone is equally motivated to teach with ICT. She proposes to address this tension by 'teaching by example' and recommends that regular 'show and tell' sessions be held within the Faculty to highlight lecturer success stories with ICT: **“people need to see results of success, and they need to see good work and I would suggest that ...that you guys run more... I would suggest monthly seminars on what you've been doing, what's been working well, and to just keep on doing it. And talk about research successes.”** She rejects the idea of formal courses for staff training based on her personal negative experiences of such endeavours where she claims 'the focus was wrong' (lines 300, 315) She rather

points to 'learning by doing' stating that pedagogy will only change due to hands-on experience. In her view, experience is the key to success in this field.

Lecturers from the educational computing (or computer-based education) division of the Faculty of Education are mentioned as the backbone of Ellen's ICT community. This 'active community' of lecturers that 'promotes Ellen's thinking' will be discussed in the section describing the division of labour within the Faculty where they are described as a subdivision of the Faculty with certain characteristics that set them apart from other groups. .

The third and final component of Ellen's ICT community is made up of international leaders in the fields of ICT and learning in education. **"...and that's what I wanted to teach to students – that you can now learn with anybody who is willing anywhere in the world, and that excites me no end."** Ellen reveals that contact with these subject experts online has been a major part of her development in the field (lines 419-447) and plans to continue involving international experts in her courses in the near future: **"I have at the moment the opportunity perhaps to work with the new so-called 'African Virtual University' that's going to be run by our colleague in Nairobi"** and **"I mean this is incredible, where else can you co-teach like this? – I mean there we are paying tens of thousand of Rands for people to travel out here and to teach us ... and if people can just make that switch ... you can be taught by the best people in the world. And then one day when you meet them face-to-face it's just a bonus."** Thus far, Ellen is the first lecturer to mention the role that international experts in various fields can play in the ICT community at the HEI.

4.2.5.2 *Tensions between the subject and the object*

In order to engage with the tools of ICT (object) in her teaching, Ellen admits to having to change her entire way of thinking about teaching in general. She claims to have been comfortable with her own personal theory of knowledge (epistemology) and states that she initially did not have to change her epistemology when teaching online: **"So it (the online component of her course)**

was really, um, really linked to my general epistemology and that is that we must learn and work together, and that um, what one learns is what one does and thinks about.” Ellen then found herself exploring her theories of teaching (pedagogy) during first encounters with ICT in the presentation of early courses: **“And from a purely pedagogical teaching point of view I think I’ve – what I’ve got out of it which is most precious is that one can combine face-to-face with e-learning and um that’s a nice recipe. I like that.”** Ellen points out that pedagogy cannot be learned from books and that a changing pedagogy impacts on everything else. In doing this she discovered that knowledge of teaching cannot simply be transferred to teaching with ICT. She, for example, wanted to transfer content directly from an existing course to an online course, and discovered that her theories of knowledge and of teaching were both being challenged when this did not succeed. She also found out that even good course design will also not succeed due to poor implementation of the ICT tools. For this reason she found herself reinventing and refining her courses.

Ellen found herself trying to use the tools of WebCT more smartly and also ended up experimenting with these tools. Possibly due to the conflict and negative experiences, as discussed under division of labour, Ellen decided on implementing a smaller ICT component in her course which may be seen as an indicator of her changing pedagogy by making use a blend of methodologies. She also found herself matching her approach with what she was wanting to teach, thus, indicating a major change in her thinking about teaching in this way. By planning ‘teaching events,’ rather than just placing content online, Ellen demonstrates a greater maturity in using the tools of ICT in her teaching.

4.2.5.3 *Tensions between the subject and the division of labour*

Ellen expresses a need for guidance with regard to teaching with ICT but stresses that it is a ‘very specific support’ that she requires. She reveals her preference for an educational ICT expert within the Faculty at least twice in the interview and expresses a feeling of insecurity when left to her own devices. She continues to say that working alone in this field is ‘unhealthy’ and that she needs to feel that

there is reliable backup and support close at hand. This preference exposes a major tension within the HEI where ICT support is not Faculty-based and exists as a separate department (CTLA) within the HEI with no specific affinity to any particular Faculty. She states her preference for Faculty-based support in no uncertain terms: **“You people are – are - are, supportive in the right way, maybe I’m just lucky, maybe my style of work is acceptable here? I don’t know? I am *quite sure* that I wouldn’t have touched it with a ten-foot pole if it hadn’t been for the folk’s right around me. ...And you can quote me on that!”** Ellen is clearly more ‘impressed’ with the ‘open, vibrant educational ICT community’ that has developed in a specific department within the Faculty and expresses feeling more comfortable within this smaller, more user friendly group group: **“...when people are here. Things are moving, things are going on here, students are actually *engaged*. There’s not this nonsense of dumping your essay or your assignment into somebody’s post box, and getting it marked, there’s always talk and engagement- talk and engagement - via the Web or otherwise, people are talking, people are doing, offices are mostly open.”** Ellen goes on to claim that she trusts the members of this smaller community due to their knowledge in the field and extensive teaching background. She further exposes this lack of theoretical knowledge as one of the major shortcomings of the CTLA and admits uncertainty in their abilities within the educational field: **“And I don’t think that an organisation like the *Centre for Learning and Teaching and Assessment* are the ideal people because they – they’re dislocated – they’re far from us, they don’t - they’re not interested in our – in our subjects and in our themes. They’re not really interested in our students, and I think they take the heart out of the technology.”** Ellen backs up this claim by showing concern at the content and quality of CTLA contributions she witnessed at a local conference in 2004.

The reason why I have added this discussion here, and not as a tension between Ellen and the community, is purely due to the fact that at no time during the interview does Ellen ever refer to the ICT support staff at the CTLA as part of her community. She has recognised instead that there are a number of lecturers with different abilities and fields of interest within the Faculty and has chosen rather to

take advantage of an easily accessible community that stimulates and promotes thinking on a level that is acceptable to herself and community members alike. Ellen refers to this small, supportive group as a 'healthy community' and, therefore, implies that the ICT support staff at the CTLA have not yet developed into the support unit they were appointed to form.

The great variety of skills and abilities displayed by lecturers, as well as the number of different fields of interest or subject disciplines within the Faculty can be seen as a major cause another tension between Ellen and the Faculty members. Ellen identifies conflict within the Faculty of Education over ICT and backs up her claims with stories of staff aggression when faced with change. She also mentions observing the changing attitudes of colleagues as a result of other lecturer's success stories with the use of ICT in their teaching. She, in fact, claims to have been victimised by colleagues for this very reason and expresses 'suffering' at the hands of these individuals. At one stage of the interview, Ellen makes the claim that this could have simply been the result of 'gender bias' or because, as a senior member of the Faculty, she was seen as 'tough enough' to take the abuse.

Ellen affirms her status as a senior member of the Faculty and claims to be witness to a great deal of good work in the field of educational ICT within the Faculty. She makes the recommendation that there is still room for more good quality work and research in this field with a specific focus on learning. She admits that this is the "selfish reason' she originally engaged with ICT in her teaching but also reveals that she has seen tremendous growth within herself during this time: **"the biggest joy, is to, is that here, at this stage of my career .. um ... the technology of e-learning and my own passionate interest in human learning have come together, and it it's fun."** She is unable to pinpoint exactly what attracted her to ICT but tells stories during her interview of life-changing events and a change in focus as an academic that has taken place over a number of years. One excerpt from one such 'story' is: **"...this is at AERA nineteen-ninety-one. Chicago, I remember the - the room in which it was done, and they showed me and I thought "but this is distributed cognition,**

this is networked learning, ...this is the stuff that I've been dreaming ...and I was just hooked. Completely hooked"

4.2.5.4 *Tensions between the subject and the mediating artefacts*

Ellen expresses fascination with ICT and claims to understand it but admits that she is not yet as technologically proficient as she would like to be. In particular she exposes personal limitations with software and admits to not wanting to have to teach basic computer skills to the students. She does, however, make a clear distinction between technology and learning and suggests that the focus should, in fact, be on the learning. She then claims to have found the link between 'learning' and 'e-learning' and has evolved from a person who wanted badly to get involved with ICT to a person who is now practically 'living on the web.'

4.2.5.5 *Tensions between the subject and the rules*

Ellen is well aware of government policy with regard to ICT in education and also acknowledges the ICT policy as set out by the HEI itself. One problem that she identifies is the fact that policymakers are in many cases not educators themselves and this leads to a number of tensions. She feels bad, on the one hand, about having to make technological and financial demands on the students, but on the other hand, recognises that South Africa cannot afford to lag behind technologically. Ellen claims that there are power relations within the HEI and that, even though a lot of excellent work has been done within the Faculty, management will not give credit where credit is due.

Internal policy also places demands on lecturers and Ellen, who has already published extensively elsewhere, is most impressed with her online publication which she sees as a personal milestone and achievement. Although publishing online is not every lecturer's main aim, policy still dictates that research is an important part of the academic world. Ellen recommends applying for research funding and highlights that there is a need to research ICT in a lot more depth: **"Because at the moment it's like er, er a funny stew, you know we just throw**

everything into the pot and we cook and stir. But I think there needs to be er good research that helps us to understand it.” She even highlights the limitations of the methodologies that can be used to research ICT in education; an issue that this very inquiry aims to address.

4.2.5 Irma’s interview (see appendix G)

At the time of the interview, Irma had been a lecturer in the Faculty of Education for the past three years and had started her engagement with ICT by taking over an existing course that had been designed and used by colleagues up to that point. The course was WebCT-based and Irma decided to jump in and learn something new rather than **“redesign and get back into a comfort zone”** that was working for her up to that point. Despite expressing the difficulty of learning new things in such a short space of time, Irma claims success with her engagement with ICT up to this point and is slowly-but-surely trying out new things with the aim of ‘keeping one step ahead’ (line 231) and keeping up to date with the latest developments in the educational ICT field.

Codes from the analysis of this interview are once again presented in Figure 4.8 on the next page and followed by a discussion of the major tension that have been identified between the various components of the activity system.

<p>Subject</p> <p>Forced to learn quickly Expressing difficulty of learning new things Claiming limited time for learning new things Taking over existing online course Using what existed on the course Attending a basic WebCT course Repeating WebCT course Listing existing WebCT tools Seeing no need to do advanced course due to basic nature of interaction Unable to tell support staff what is needed due to lack of technical knowledge Wanting to use the tool without technical knowledge Keeping a technical support journal Downloading the WebCT manual for backup support Questioning whether technology is her responsibility Placing responsibility on students Claiming success with teaching with ICT</p>	<p>Mediating Artifacts</p> <p>Claiming to initially know nothing about ICT Stating that ICT is just the tool Stating that ICT is here to stay Wanting to be adequately proficient Claiming to be using another 'tool' Claiming that using ICT does not take intelligence but demands emotional intelligence (attitude) Claiming that technology can take away your dignity</p>	<p>Object</p> <p>Changing course in second year Making life easier by working smarter Finding strategies to save time & effort through communication Using communication tool more Enhancing teaching with ICT Doing a bit more every year Making administrative tasks easier wrt students / Saving time Prescribing e-journals in courses Projecting the 'self' into ICT Conscious of projecting teaching style through ICT Giving 'heart' to the technology Re-packaging course content Designing in advance Wanting to keep one step ahead</p>
<p>Division of labour</p> <p>Claiming to be the subject expert Wanting to remain the expert Clarifying roles of lecturer & support staff Claiming need to integrate coursework Needing to break boundaries between staff Making conscious choice to improve status</p>	<p>Community</p> <p>Supported by original designers of course Working with colleagues within faculty Receiving assistance from faculty member</p> <p>Getting quality time with students</p> <p>Rejecting ICT support staff Feeling unsure of job description of ICT support staff Unable to put a name to ICT support staff Using support staff but fixing own problems Feeling better about fixing problems 'alone' Needing 'on-demand' support Questioning duration & content of WebCT courses Demanding better support</p> <p>Showing interest in how lecturers react to new technology Demanding that lecturers make an effort Claiming that teachers have a responsibility to keep up to date & learn Professing teaching by example</p>	<p>Rules</p> <p>Identifying power relations between faculty members Identifying power games between support staff and lecturers</p>

Figure 4.8: Initial codes from content analysis of Irma's interview presented on a single page to facilitate identification of inherent tensions

4.2.6.1 Tensions between the subject and the greater ICT community

Irma had the good fortune of inheriting a course that had already been set up in the WebCT environment by other members of the Faculty. She took over the course and used the existing components until she found herself in a position to be able to make basic changes. She claims that she was forced to learn about the tools of ICT and teaching online very quickly (line 11). Besides attending a beginners WebCT course which she repeated the following semester, Irma also

had the backing of the original designers of the course who were 'close by' within the Faculty (line 19). She found the support from these colleagues within the Faculty to be most helpful and claims that their contribution was most valuable at times when she needed support 'right away.' For this reason she initially rejected the ICT support staff from the CTLA (a department she could not put a name to), who she claimed were not always available (line23), and continued working with the original designers and other colleagues from within the Faculty (line 32) who were able to help her with problematic issues on demand.

Irma admits in the interview to being unsure of the role and job descriptions of the ICT support staff from the CTLA but eventually started using them to guide and help her to fix her own problems with the online course (line 59). She admits to overcoming this tension by fixing these problems 'alone': **“I’d rather do things and fix things on my own with guidance and support than have somebody come into my office, sit at my keyboard... perform some magic and disappear... that leaves me feeling dumb.”** She makes a case for 'on-demand' support and questions the duration and content of WebCT courses at the HEI (line 172-177) but admits that these courses were sufficient to keep her going.

The third component of Irma’s ICT community at the HEI is the lecturers. In the interview, Irma indicates an interest in how lecturers at the HEI react to new technology. She notices the lack of engagement with ICT in their teaching and demands that lecturers make the effort, claiming that teachers have a responsibility to keep up to date and learn: **“If, you are a teacher, in your soul, and this is going beyond the heart, then you have a responsibility to do this, because if pedagogy is all about teaching and learning, it starts with the self, and that’s it, to me, that’s it you know, if I am truly interested in pedagogy and I want to teach others, you learn by example, so you are the example and if you as the teacher are not prepared to learn, then why on earth are you teaching?”**

4.2.6.2 *Tensions between the subject and the object*

Irma admits to not seeing the need to do the advanced WebCT course as she is still struggling with the basics but later in the interview she then admits that she is unable to instruct ICT support staff due to a lack of technical knowledge. She hints that there must be a way to use the tool without having to have the technical knowledge: **“when I go the people that are supposed to assist, ...then I need to understand the intricacies of the tool and instruct them on what I want them to do, but I don’t know this, so I have no way of instructing them, ...I don’t want to be involved in the technical setting up of anything... alright, I just feel if I know how to use the tool in my teaching, it is enough ...I’m not sure in this point in time whether it is my responsibility.”** Despite these statements Irma keeps a ‘technical support journal’ to help her and has printed out the WebCT manual as a backup. Even though she exposes the tension created by technological inadequacies she shows advances by making claims of changing the course structure and making her life easier by ‘working smarter.’ She has found strategies to save time and effort using the communication tool in WebCT and feels she is enhancing her teaching with ICT. She also admits to saving time and effort by streamlining administrative tasks using the technology and designing in advance for new teaching opportunities.

Another tension between Irma and her engagement with the tools of ICT arising from the analysis of the data is highlighted when Irma states that engagement with the tools of ICT is not enough and proposes projecting the ‘self’ into ICT: **“...to me what it represents is, I am actually there, the student is with me, is hearing my voice, is interacting with my personality...”** and she is also conscious of projecting teaching style through the medium of ICT: **“...my teaching style is coming through, my demands are coming through, all of these hidden messages are coming through.”** What she is trying to say in this section is that she is proposing giving heart to the technology: **“I don’t see it as something that is inhuman and is taking away the human interaction...”**

4.2.6.3 *Tensions between the subject and the division of labour*

Irma claims in the interview to be the 'subject expert' (lines 60, 214) and raises the question about the unclear roles and job descriptions of the lecturer and the ICT support staff (line 207-221). For Irma, the division between the two is blurred and clarifying these roles remains an issue that will continue to create tension in her engagement with the tools of ICT at the HEI.

Another tension exists as a result of the boundaries that have formed between staff who each believes they are the subject expert. Irma suggests the need to integrate coursework and to provide links and connections that are visible to the students between the courses: **"we need to start integrating as a Faculty how we are using the tool but we can only do that if we integrate coursework and course content, which is very difficult to do, ...different people are responsible for course content umm, its difficult to integrate that because each person feels, this is my domain, and this is what I will do in my domain and you have no right to talk about what feeds in, and what results from, you know, so that is also a challenge."** Irma suggests breaking down these boundaries but this will be described in more detail later as 'power issues' that create tensions at the HEI.

Finally, Irma states that she is making a conscious choice to improve her status within the HEI (line 116) through her involvement in teaching with the tools of ICT. She mentions terms like professional being, professional status, and personal development implying that the tensions that drive her to adopt these new technologies are influencing her life on all levels, including both the professional and the personal.

4.2.6.4 *Tensions between the subject and the mediating artefacts*

Irma claims to have initially known nothing about using ICT in teaching but by being forced to learn quickly through being 'thrown in at the deep end' she has, in a short space of time, been able to gain experience in the field and formulate her

honest opinion in this regard. She attributes her quick learning process to wanting to be adequately proficient with the technology in order to be able to help herself in times of need, but at the same time questions whether or not it is her job to worry about technological matters. Irma later comes back to address this tension and makes the claim that technology can quite easily 'take away your dignity' as a lecturer. She then states that ICT is 'here to stay' but points out at least twice in the interview that she sees ICT only as another 'tool' she can use in her teaching. Irma then makes the interesting claim that using the tools of ICT does not take too much intelligence as such, but rather demands a fair amount of 'emotional intelligence' on the part of the lecturer. She sees this 'EQ' manifested in the 'attitude' of the lecturer and it is this attitude about using the tools of ICT that will determine lecturers' success when teaching online.

4.2.6.5 *Tensions between the subject and the rules*

Irma does not mention policy at government or even at university level during the interview but does focus at least twice on issues of power between individual Faculty members and between Faculty members and the ICT support staff at the HEI. Irma mentions that tensions are created by lecturers 'protecting' their domains (line 96) and not wanting to allow intrusions into their specific fields of interest. The second tension mentioned by Irma is created by the interplay between ICT support staff and the lecturers (line 208) who seem to be uncertain of the roles that each party is supposed to play in the process of getting a course online using the tools of ICT. By doing so these parties are, in fact, exposing the need for more stringent HEI policy with regard to integration of ICT in teaching and learning.

4.2.7 Hester's interview (see appendix H)

Hester is a lecturer in the Faculty of Education who claims to be fully aware of the lack of engagement with ICT within the Faculty but also admits to 'not being able to speak on behalf of colleagues.' Hester does not mention lecturers' successes or failures regarding the use of ICT in their teaching and only discloses a few of her personal observations and opinions on this matter in the interview. These issues may indicate a lack of transparency within the Faculty and reveal a situation where lecturers are mostly left to their own devices and are working in isolation with their courses. In Hester's case it seems as if she is merely assuming that there is a lack of lecturer engagement with ICT within the Faculty due to insufficient knowledge of their teaching activities on her part. This is evident throughout the interview where she only refers to lecturers a few times without really claiming to know anything about their engagement with the tools of ICT. This may also be an indication that Hester has been too busy focusing on her own teaching and demanding workload at the HEI to really notice what others have been doing around her. From personal observation I can also state that at the time of the interview Hester was completing her own doctoral studies and this may also help to explain the abovementioned phenomenon.

Hester has been involved with using ICT in her teaching since the year 2000 where she was one of the first users of the course management system that was implemented at that time (line 32). She is quick to point out her involvement as an early adopter at that time early in the interview (line 27) and is openly proud of this fact. She is clearly impressed with the potential of the medium (lines 26, 217, 230) and is still actively involved with ICT in her teaching where she constantly plans and implements new ideas in her online component of her courses: **"I think in terms of that, I don't think one can stagnate it, uhm, the whole, uhm, web changes so much over time, that, uh, you must stay abreast and to stay abreast you must also continuously change what you're doing."**

<p>Subject</p> <p>Not being able to speak for colleagues Being aware of lack of ICT uptake Claiming to be an initial user of ICT Needing time to gain experience with ICT Stressing need for assistance in getting started Making claim that starting off is the hardest part Getting more time to focus on specific student issues Working at night on the web Losing track of time when engrossed in ICT work Neglecting other tasks due to workload Impressed with web being available on demand Learning by doing Showing fear of stagnation Proposing workshops in place of courses Seeing show & tell sessions as an option Needing reminders in email about ICT related activities</p>	<p>Community</p> <p>Enjoying being in touch with students / aiming to be in contact with students / enjoying contact when students are away on prac Claiming to have more student contact Building relationships online with students Emphasizing role of relationships in education Getting an idea of students' worlds through ICT Providing better support for students Revealing greater involvement from students Focusing on student thinking Making the research process easier for students Identifying interaction between students and ICT itself Listing students' technological problems</p> <p>Making contact with international scholars Including work of international scholars in her course</p> <p>Exposing lecturers fears of ICT Identifying full work load of lecturers Claiming procrastination of some lecturers Stating that some lecturers plan too much</p> <p>Disclosing importance of a dedicated tutor / help by motivated tutor Learning from tutor Losing tutor slowed process down Not having time for training new tutor</p> <p>Exposing lack of knowledge of ICT support staff from CTLA</p>	<p>Object</p> <p>Focusing on content Progressing from content dissemination Using communication tools for admin purposes Stressing organization of course Saving time by not having face-to-face appointments Getting to the point quicker using ICT Proposing to use a blended course Analysing course discussions Infusing theory of teaching into ICT Using f2f sessions for ICT training Suggesting 'new' uses of the web for teaching Planning to implement new ideas Planning ICT activities for following year Keeping up to date with developments in ICT Using WebCT tools differently Using different tools all the time</p>
<p>Mediating Artifacts</p> <p>Seeing potential of ICT x2 Seeing potential for ICT in teaching Stressing interaction in teaching with ICT Listing benefits of ICT over face-to-face teaching Demonstrating enthusiasm about ICT Stressing passion for ICT Seeing ICT as a tool Claiming 'love' for the web</p>	<p>Rules</p> <p>Showing concern over policy that stops lecturers subsidised web access from home Mentioning demands placed on students, technical & financial</p>	<p>Division of labour</p> <p>Revealing availability of educational ICT 'experts' within faculty for support Stating preference for faculty-based support Stressing lack of interested parties in department Wanting to know what other lecturers are doing with ICT</p>

Figure 4.9: Initial codes from content analysis of Hester's interview presented on a single page to facilitate identification of inherent tensions

4.2.7.1 Tensions between the subject and the greater ICT community

Hester emphasises the role of forming healthy relationships in education in general and supports this notion by referring to influential scholars: **“Carl Rogers**

had a profound influence on me, uhm, and, uh, not only, in, in Educational Psychology, but also in learning and again he emphasizes the role of a relationship between the, uh, facilitator of learning and the learner themselves” and then advances the idea by wanting to build relationships online: “And I do believe that elearning can facilitate that as well. I don’t think that e-learning is a thing where you just sit behind the computer and you are not really visible, I think that you can have a presence on the web in terms of building a relationship with students.” A major tension that confirms Hester’s need to create healthy relationships is the ‘need to be in touch” and to always be ‘in contact’ with students. Much of the interview focuses on the student as the most important component of Hester’s community and reveals her enjoyment of the extra ‘contact that ICT has brought to her teaching (line 65).

Hester claims greater involvement from the students using ICT and is also able to identify increased use of ICT by the students in their work. She also expresses having seen greater interaction between students themselves (line 144), improved student thinking (line 90) and claims also to have obtained a better idea of the students’ worlds through ICT which in turn enables her to provide better support as a lecturer. In this regard, Hester admits to presenting her own ICT training for students where she uses face-to face sessions at the beginning of the course to highlight technical issues (line 157).

Hester identifies her tutor (student assistant with a tutoring function dedicated to the course or module) as a second important component of her greater ICT community. She stresses the importance of a tutor who is motivated and dedicated to the course: **the tutor that you have available for, uh, WEBCT group, must be interested and, uhm, and as passionate as you are about it, cause otherwise it doesn’t help”** and admits to learning a lot from her tutor in the past “**after the first year, she was just as passionate as I am, she knows what she must do, and so between the two of us we could really run it, and she would come with other ideas which I could now use again”** Hester also admits to have been ‘slowed down’ when her tutor left and exposes the problem

that lecturers face when they have to find time to re-train new tutors for their courses (line 220).

When mentioning the lecturers who form part of her greater ICT community, Hester exposes their fears of ICT and highlights their busy work schedules at the HEI. She admits to limited contact with these lecturers and little knowledge of their engagement with ICT in their teaching. She does, however, claim to know enough to be able to state that some of the lecturers she has observed tend to procrastinate and appear to plan too much before getting involved: **“I find that people are still not going to go into it because they want to plan it... in some ways too much I think, and I think sometimes you’ve got to go and start, even if you start with one thing and then develop it from there. But if you don’t start, I get the impression you’re gonna leave it.”** This is in direct contrast to her approach of ‘learning by doing’ and simply getting involved: **“well fortunately I’m not that way. I like to climb into a thing and find out about it”** Hester also identifies the ICT support staff from the CTLA as a part of her community but at the time of the interview had not yet been sufficiently involved with this division to be able to make any comments about their role. Since then, Hester has actively engaged the help and assistance of this group of support staff and has utilised their experience in developing a new module for implementation in her multi-modal course.

A final component of Hester’s community can be seen as the international scholars who provide content and ‘credibility’ to her courses. By making contact with these scholars (line 177) and including their work in her course, Hester has indicated that she has seen the potential of such contact.

4.2.7.2 *Tensions between the subject and the object*

Hester recognises having concentrated initially on content and the dissemination of content using ICT in her courses but admits to have progressed from this to changing her ideas about teaching online. She now stresses the organization of

the course (lines 56, 59) and proposes using a 'blended model' incorporating both online and face-to-face components in her teaching (line 69). In direct contrast to the other participants in this inquiry, Hester states that her structured and planned engagement with ICT has given her 'more time' to focus on specific student issues in the course of her daily work: **"I find it more tedious to have to make an appointment to come in and see them, than to have a discussion, with them on the web, sometimes I find that we get to the issue quicker because we can focus quicker on the question that they're asking."**

Hester's engagement with the tools of ICT has progressed to the stage where she admits to trying to infuse the theory of teaching into her online course components (line 94). She proposes in the interview to keep up to date with developments in ICT in education and is already able to suggest 'new' uses of the web in her teaching (lines 267-279, 321). There is a tension that drives Hester to implement new ideas in her teaching which is clearly visible in her planning of teaching activities for the following year and is highlighted once again in her self-confessed 'fear of stagnation' (line 332). This is perhaps the driving force that has led to her using the tools of WebCT differently with each course and also using different WebCT tools all the time (lines 334-339).

4.2.7.3 *Tensions between the subject and the division of labour*

Hester suggests in the interview that 'starting off' with new technological challenges is perhaps the hardest part for her (line 208). She stresses the need for assistance in some cases to initiate certain projects and admits to still needing time in order to gain experience in using ICT in her teaching. Hester is aware of the availability of educational ICT 'experts' within the Faculty (line 255) who can be approached for support, and states her preference for this kind of support within the Faculty, but also recognises the full work loads of these lecturing staff members who are not officially appointed to carry out such functions: **"I prefer to come to the people here, rather than to go outside cause I think the people here have got a better idea of, uh, what you want and what you're doing and where you would be going"** Hester points to definite divisions of labour relating

to work allocation and job description of the lecturers within the various subdivisions of the Faculty but also expresses the need to know what other lecturers within the Faculty are doing with ICT: **“but I think the most important of that meeting was that there was some sharing of what’s happening.”** Her feelings of isolation within the system are clear. Hester constantly positions herself as a lecturer and highlights her teaching role without making any mention of further divisions of labour within the Faculty. She does, however, mention a distinct lack of lecturers within her field of expertise with an interest in ICT: **“there’s not really somebody in my program group with whom I can sit and say but let’s do this, and let’s do that, and let’s do this... I think we know that there’s not a lot of people who, who get on to the bandwagon and go for it.”**

4.2.7.4 *Tensions between the subject and the mediating artefacts*

Hester clearly sees the potential of ICT and also, more specifically, of the potential of ICT in teaching. She demonstrates enthusiasm about ICT and even describes ICT as a passion in her life (line 186). Her particular joy is her unsuppressed love of the web in general (line 164). She admits to working until late at night on the web and becoming engrossed in her ICT work often neglecting other tasks (line 372). She does, however, stress that she now only sees ICT as a tool in her teaching (line 229) which she is manipulating to her benefit in order to find out what works best in her specific situation.

4.2.7.5 *Tensions between the subject and the rules*

Hester has already implied through her ‘disregard’ or ‘rejection’ of any notable divisions of labour within the Faculty that she is not too concerned with issues of power at the HEI. She only shows concern over the policy changes that affect her directly such as the abolishment of lecturer’s web access from home through the HEI network (line 169). She does, however, also refer to the technical and financial demands placed on students as a result of ICT at the university showing a deeper understanding of policy issues that in some way not only affect the students but the entire ICT community.

4.2.8 Walter's interview (see appendix I)

Walter is a senior lecturer within the Faculty of Education who admits to not being 'technologically strong'. He originally got involved with ICT in his courses by seeing the 'rush' by Faculty members to try out the 'new' technology that was available at the time and did not want to be left behind. Walter speaks of struggling initially with technological issues: **"this is like, you know, trying to play tennis under water"** and about the full workload that has been mentioned by all other participants in this inquiry.

From feeling 'inadequate' and 'alone' with a 'constant need for support', Walter has come to terms with ICT 'one step at a time' and has experienced both low and high points on this journey. He claims to now have a better understanding of the demands placed on lecturers regarding ICT at the HEI and is quite willing to have a minimal presence online in all of his courses and has even expressed the intent to try out some innovative ideas for using ICT, not only in the teaching situation, but also to increase possibilities within the Faculty writing centre.

Walter still shows a distinct preference for the 'old' ways of dealing with administrative tasks by hand (with written mark sheets, files and other documentation) and aims to stick with what works for him at present (line 183-189). This may be indicative of Walter's preferred style of 'learning things gradually and in an orderly fashion.'

Walter admits to have changed his teaching style and thinking about teaching in general by becoming aware of the students' point of view and has accordingly adapted his teaching for implementation 'on the web.' He claims to have heard many 'stories' from other lecturers regarding the initial 'hype' within the Faculty about ICT but has now developed his own view on ICT in education and openly admits to have included ICT as part of his thinking.

<p>Subject</p> <p>Not wanting to be left behind Expressing excitement at new challenges Highlighting role as a teacher Claiming knowledge of teaching Questioning teaching approaches with and without ICT Admitting to struggling initially Telling story of struggling initially with technology Stressing time constraints as a lecturer Claiming full workload Resigning to the fact that work has to be done Admitting not being 'technologically strong' Feeling inadequate Feeling initially alone Starting off with no support Wanting support all the time Identifying 'turning point' at conference Seeing all dimensions of ICT in education at work for the first time Being exposed to a real life example of ICT in his field Participating in a real online course / actively involved / learning by doing Learning a lot from participation in a course Unable to reproduce his vision at the HEI Temporarily giving up with ICT in education Attending courses on teaching online Feeling patronised by level and focus of course Attending a more technical course on WebCT Being exposed to the tools of WebCT Discovering that he was not as 'inadequate' as he thought Thinking that he must have everything 100% online Expressing relief at only having to have a minimal presence on the web Coming to terms with ICT one step at a time Expressing confidence to continue unaided Feeling better informed Showing knowledge of online resources Sticking to what works with 'manual' admin Changing teaching by being aware of students' points of view</p>	<p>Mediating Artifacts</p> <p>Expressing ICT as the cutting edge of education Seeing potential of ICT Seeing ICT as an aid to teaching Seeing ICT as an aid to learning Seeing ICT in all aspects of life Proposing to blend ICT into teaching style Including ICT as part of his thinking Seeing the link between teaching and technology Claiming positive experiences with teaching online</p>	<p>Object</p> <p>Having to be selective with ICT Choosing selective interventions & activities Confirming success with selected activities Restricted by CMS Not impressed with what WebCT had to offer Using the web for student tasks & research Exposing limitations of the web Adapting teaching for implementation on the web Using web for personal research Seeing web as indispensable for research Suggesting new teaching strategies with ICT Finding innovative ways to extract personal & high quality work from students Highlighting role of ICT in writing centre Using technology in writing centre Proposing a virtual writing centre Planning future implementations of ICT Aiming to focus on writing through all ICT endeavours Exposing possibilities for research on ICT</p>
	<p>Community</p> <p>Confirming that lecturers are still needed Hearing stories of life-changing events from lecturers Hearing exaggerations by lecturers Highlighting full workload of lecturers Suggesting that lecturers do what works for them using ICT Claiming initial 'hype' among lecturers over ICT Claiming that it should now be easier for new lecturers Making suggestions for lecturers using ICT</p> <p>Interaction with international scholars Feeling welcome in international community Gaining confidence from international contact</p> <p>Showing uncertainty at roles of support staff Feeling surprised at the pro-active approach of ICT support staff x2 Identifying positive approach of support staff Claiming that support sessions will be attended by lecturers as they become ready</p>	<p>Rules</p> <p>Affirming the urgency of adopting ICT Feeling pressurised by others in faculty x2 Identifying pressure from colleagues and department Exposing power relations in HEI Identifying institutional pressure Finding out what is expected of him Exposing miscommunication within faculty over ICT Gaining confidence to make demands Confirming faculty and departmental support Stressing importance of financial support</p>
	<p>Exposing demands of students Stating that students still do the same thing online Identifying student excuses with technology Recommending orientation courses for students</p>	<p>Division of labour</p> <p>Making assumption that all lecturers should be educationally sound Claiming that all lecturers are different Suggesting that some lecturers will not cope Expressing high regard for support from faculty members Enjoying support on a more personal level within faculty</p>

Figure 4.10: Initial codes from content analysis of Walter's interview presented on a single page to facilitate identification of inherent tensions

4.2.8.1 *Tensions between the subject and the greater ICT community*

Walter confirms that he still sees a major role for lecturers to play in higher education and is not threatened at all by the concept of ICT taking over the role of the lecturer at the HEI (line 25). Lecturers form a major part of Walters ICT community and it was, in fact, these very lecturers who created the initial hype around ICT and led to Walter not wanting to be 'left behind' (line 18). He admits to being gullible and believing the exaggerated accounts of how fellow lecturers were succeeding with ICT in their courses and implementing them one hundred percent online (line 16) and was also prone to believing their stories of 'life-changing events regarding this mode of teaching: **“the web has taken over their lives, its taken over their jobs, you know, take their place so to speak, and I, I could never figure this out you know, and people kept on telling me about how wonderful this is and you know their life, lives have changed and the lives of the students have changed, and all these things...”** The tension he experienced was, therefore, created partly as a result of his own inexperience and amplified feelings of inadequacy at seeing the so called success of other lecturers in the Faculty with ICT: **“and I, and for some other reason I could not get it right...”** This, along with stressful time constraints due to a full workload as a lecturer left Walter feeling inadequate, alone and feeling as if he needed support at all times.

Walter resigned himself to the fact that the work had to be done and even attended some courses on using the course management system WebCT and a workshop on teaching online. He claims to have good knowledge of teaching (line 152) and admits to feeling slightly 'patronised' at the level and focus of the workshop and makes the assumption that everyone in the Faculty understands what learning is: **“...but I think he then went too far back, you know, its like starting with Adam, uhm, I think the people, well that's my sense of the workshop was that uhm, that's all good and well, you know, we are in education, we have that in place, and we understand that...”** In a way Walter is making a claim that lecturers (particularly within the Faculty of Education) should

have a strong educational background but the reality of the matter is that some lecturers are not pedagogically sound and some do not have a well developed theory of knowledge and teaching at all. Lecturers thinking they 'know it all' (and others actually just accepting that they know it all) is hereby exposed as a major tension in this activity system.

By attending courses Walter claims he was introduced to the ICT support staff from the CTLA. At first he was unsure of their exact role (line 128) but was soon surprised by the proactive approach of this division (line 310). He found their approach positive and refreshing which may help to explain why he eventually went back to them for further assistance with his teaching online. By making this division a part of his ICT community Walter was addressing the tensions created by his lack of technical knowledge and ability which soon led to him discovering that he was not as inadequate as he thought. Walter supports the concept of regular support sessions and claims that these sessions will be attended by lecturers as they "become ready" (line 424).

A tension that has served to 'pull' Walter in a positive direction and create self confidence with using ICT in his work as an educator is the tension that is caused by the 'need to belong.' Walter has made contact with international scholars in his field and has successfully interacted with them and seen examples of what these scholars do with technology in their courses (from line 69). He feels welcome in the international community (line 103) and has been exposed to real life examples of ICT use in his field.

Students form the final component of Walter's ICT community. He exposes student demands regarding the use of ICT in their courses and recommends orientation courses for students in order to iron out the most common technical issues (line 265). He claims that students will always try the same old excuses and has even identified some common practices of students in his online modules (line 228). Walter recommends that in order to nullify this tension, lecturers should look beyond these age old student habits or practices and rather focus on

the teaching. In doing so Walter claims to have changed his teaching to adapt to the ICT environment by being aware of students' points of view (line 231).

4.2.8.2 *Tensions between the subject and the object*

Walter claims to be coming to terms with engaging with the tools of ICT one step at a time (line 254). By simply feeling more well informed Walter expresses confidence to continue largely unaided with future ICT endeavours in his teaching and research. Walter claims to use the web for personal research and sees it as an indispensable tool in this process (line 236-247). He has gained confidence and is now willing to suggest new teaching strategies when using ICT and is exploring ways to extract personal and high quality work from students online (line 348-363). He admits to now having to be more selective with the tools of ICT (line 47) and finds himself choosing selective interventions and activities in his courses: **“so eventually I did short, selected and selective type of interventions and activities and interactions, ...with, with the students, and that, that worked for me, you know, and uhm, and I am still doing that...”** This is a methodology he claims success with but admits that he has also had to adapt his teaching for implementation on the web: **“...I think it is a way of sort of like integrating it with your, with your teaching personality, uhm, with what works for you, uhm, what you know, the students, the students will benefit from that...”** Gaining the confidence to engage with the tools of ICT is therefore the tension that Walter has had to overcome here.

The 'turning point' in Walter's engagement with ICT occurred at an international conference where he saw an example of 'all dimensions of ICT in education at work' for the first time: **“so I could immediately see that three dimensionality of the whole thing, and it was absolutely wonderful, I mean you know, I felt like Moses seeing the promised land.”** Being exposed to a real life example of ICT being used in his field of expertise was the stimulation he needed to renew his fading interest in ICT: **“but what happened then was that I actually uh, participated in, in their course, they invited me to do that...”** Walter was 'allowed' to participate actively in the online course and professes that 'learning by

doing' is the answer to engagement with ICT: **"I mean you know it was like a learning curve like you can not believe I mean, one week."** By participating in the course he was able as an educator to view the course from both the perspective of the lecturer and the student. This is something that not all lecturers at the HEI have intimate knowledge of and can be seen as the cause of possible tensions within this Faculty. Another tension within this system was exposed by Walter wanting to reproduce what he had seen 'overseas' and not being able to do so due to limitations with the tools available to him at the time **"I really really liked that, and here I couldn't do it you know, that is what I had in mind, and that to me is what ideally what I wanted to do, but uhm people just looked at me as if I was mad you know and sort of like... what, what is it... what are you trying to do? So WebCT, e learning here in this institution, to me became sort of like a glorified e mail correspondence..."** The need or drive to want to do 'new things' with ICT and not quite having the ability to do so unaided also seems to be the driving force that drives Walter to want to highlight the emerging role of ICT in the Faculty writing centre where he is the centre 'manager.' He already makes use of technology in the current writing centre but exposes plans to create a virtual writing centre in the future (line 380).

4.2.8.3 *Tensions between the subject and the division of labour*

When talking about the lecturers within the Faculty of Education, Walter makes the assumption that they all are 'educationally sound' and that their knowledge of teaching in general is good. He then contradicts himself by admitting that all lecturers are different (line 306) and suggests that some lecturers will not cope with ICT in their teaching: **"I mean people are different, uhm, some people would give up, in that way, or uhm, would abandon the whole thing, or whatever, and I know people do that..."** Walter then claims that it is a number of diverse factors that together create this tension and play a role in the individual lecturers' success with using ICT in their teaching: **"with ones own teaching style and personality and beliefs of, of learning and teaching and pedagogy and the whole lot, uhm, I think if it is integrated and it works for you that's fine."**

Walter expresses high regard for support provided by certain Faculty members with knowledge of using ICT in the teaching process: **“I like knowing that I can come to you and for instance say ‘God, just help me with this’, or ‘how the hell must I do this’, or ‘put this on the web’ or whatever. You know, so, so I really like that and I really appreciate that. And I know it’s probably not in your job description and so on and so forth, but that I like, so there’s that collegial spirit...”** Although he has more recently accepted help from outside of the Faculty he admits to enjoy the support given by these individuals on a more personal level within the Faculty. This is another indication of the varying abilities of staff within the Faculty itself and the tensions that are inherent within any similar system.

4.2.8.4 *Tensions between the subject and the mediating artefacts*

Walter acknowledges the potential of ICT in general (line 20), seeing ICT in all aspects of life (line 27), but also highlighting it as the ‘cutting edge of education’ (line 14) He goes even further to describe ICT as an aid to teaching and an aid to learning: **“you can’t really take away the teacher, you know I think it is always important to have the teacher in the class, and this, I always see it as sort of a, you know an aid to teach, e learning is an aid to learning and teaching you know, it’s not... It cannot take the place of the teacher.”** To be able to make these claims based on personal experience, Walter has had to overcome many obstacles and come to terms with ICT one step at a time. By highlighting his role as a teacher and claiming intimate knowledge of teaching, Walter was able to question teaching approaches with and without ICT and make a comparison: **“how can I use it, how can I, you know, develop something for the learners on the web? So you know it’s always at the back of my mind, is this something, this lecture, or this series of lectures you know, would it have been better on the net or not, you know, would they benefit more from me standing in front of them, or from doing it in class or so, so forever, it is always in my mind you know sort of like, what about the web, what about the web, what about the web, so I think it has penetrated my conscience (laughing) and my**

consciousness. This led to Walter proposing to blend ICT into his teaching style and not the other way around. Doing this in reverse could be the possible source of another major tension in this field.

4.2.8.5 *Tensions between the subject and the rules*

From Walter's interview it appears that there was a feeling of 'urgency' for him to adopt ICT (line 48) related to 'pressure' exerted by other lecturers within the Faculty and also to pressure at departmental level: **"I think you know initially, there was such a big fuss about e learning, you know, everybody said, oh no, you have to do it, because otherwise you are going to fall off the bus, uhm, you are not at the cutting the edge of learning and teaching, so it was a big thing you know, everybody from all corners just said, you need to have your whole course on the web, uhm, how far are you, how's it going and everything like that..."** Having to have courses 'fully online' was the 'vision' that drove Walter to start using ICT and he ascribes this misconception partly to institutional pressure (line 36-40) and partly to peer pressure (line 29). An exploration of these power relations within the HEI led Walter to eventually find out that no official document or policy exists that demands courses to be one hundred percent online. After exposing this miscommunication over ICT within the Faculty (line 136-241) Walter discovered that he was not as inadequate as he thought: **"I got the impression that it must be a hundred percent, and everybody said they are a hundred percent on the web (laughing) so, so it was very funny when I realized that, here I've been blaming myself, chastising myself for feeling so inadequate, uhm, and really racking my brain and thinking of ways of uhm, you know uhm getting myself hundred percent electronically available to my students..."** His gain in confidence and his approach of 'learning by doing, has led to Walter being able to make both *technological demands*: **"I asked most of the people here... I asked the people in IT, the webmaster..., and you know the whole lot... I went to all of them and as I say I... within a week you know, I uh, I, I got it!"** and *financial demands* regarding use of ICT in

the field of writing support at the HEI (line 402) and he now acknowledges support from all levels of management in these undertakings (line 398).

In terms of research, Walter has also found a new source of inspiration and aims to focus now on all aspects of writing by looking through an ICT lens in order to consolidate his academic output under one 'umbrella' field: **"I also want to uh, uh, just research e-writing, uh, because you know, uh, one of the things that is often said is that in your academic career, your articles must be, you know, it must not be sort of like a mixed *breidie*, it must be coherent... my anchor is writing it's the writing centre, I'm writing about that, it is writing in class, service learning, and writing, and its electronic writing and so on."** Walter intends to address the demands of the HEI to publish in this way.

4.2.9 Rose's interview (see appendix J)

Rose is a senior lecturer in the Faculty who, like Irma, had a quick and 'forced' introduction to ICT in education. She was asked to assist a senior colleague in the presentation of an undergraduate module with both online and face-to-face components. Rose admits in the interview to be new to ICT in education and although she rejected the idea of large classes online she took on the task of teaching the course to the large Afrikaans speaking section of the class. The online component of the course was largely planned, designed and presented in English and Rose accepted the task of translating and setting up the Afrikaans equivalents for the benefit of the demanding Afrikaans student population who felt they were not getting the same attention as the English speaking students.

Rose mentions having the same initial problems as most of the other newcomers to ICT in this inquiry but unlike these other lecturers she did not take positively to the concept of teaching online and still shows a distinct preference for face-to-face teaching and 'what she is comfortable with'. Rose's interview took place in Afrikaans but the analysis has been translated into English.

<p>Subject</p> <p>Admitting to be new to ICT Having initial problems with ICT Concerned with language issues Identifying problems with random group allocations Rejecting the idea of large classes online Blaming technical problems for students losing interest Confusing network problems with Internet problems Needing to be in control x2 Not wanting to let the students go Questioning increasing numbers of computers on campus Claiming that eye contact and face-to-face teaching should be 1st priority Highlighting preference for face-to-face contact x2 Showing preference for what she is comfortable with Not planning to teach large classes with ICT Claiming to have been put off by bad experience Reliving bad experience with 1st attempt Showing preference for text book or journal Wanting easy access to good sources of knowledge Not seeing the sense in what is currently presented online Hearing success stories but not believing Seeing herself trying again in the future Showing preference for what she is comfortable with</p>	<p>Community</p> <p>Exposing student frustration Seeing student overcrowding at under equipped labs Seeing students wanting to print out electronic pages Feeling for students and their problems with ICT Highlighting technical problems exposed by students Claiming waste of students' time due to technical issues Stressing student negativity building on negativity Placing demands on student finances Finding problems with student basic computer literacy Exposing conflict between senior colleague & students</p> <p>Seeing student problems through the eyes of a mother Using the experiences of her sons to describe poor teaching with ICT / going back to her children's bad experiences Stating perceptions of parents regarding financial implications</p> <p>Stating problem with having to retrain tutors Seeing tutor as an extra interference between student & lecturer Questioning the power of tutors</p> <p>Identifying bad planning & design of learning tasks by lecturers Claiming that lecturers' bad planning can lead to student apathy Questioning all attempts by other lecturers Exposing lecturers placing content/transparencies on web Claiming that lecturers use ICT without knowledge about pedagogy</p>	<p>Object</p> <p>Blaming technical differences between online course & study guide for problems Using discussion groups for large class Accommodating students during face-to-face teaching time with computer work Suggesting using ICT more in post graduate classes when basic skills have already been learned Finding search engine frustrating Revealing abundance of poor content on the web</p>
<p>Division of labour</p> <p>Working with senior colleague on online course Showing lack of understanding of colleagues attempts at using ICT for teaching Teaching alone in second year</p>	<p>Mediating Artifacts</p> <p>Claiming lack of experience to be able to comment on ICT Seeing internet access as a problem Claiming that bandwidth is poor on Fridays Identifying lack of computers on campus Still claiming lack of computers at the HEI Exposing logistical problems with printing Technology causing unnecessary frustration with students Stating that ICT was not yet well enough established Losing control when using ICT Claiming that ICT can become a back door for lecturers who with poor face-to-face teaching techniques Seeing ICT as cold & impersonal Rejecting ICT</p>	<p>Rules</p> <p>Having to work with senior colleague</p>

Figure 4.11: Initial codes from content analysis of Rose's interview presented on a single page to facilitate identification of inherent tensions

4.2.9.1 *Tensions between the subject and the greater ICT community*

A major section of Rose's interview deals with student issues and points to the student as the 'most important' or dominant component of her greater ICT community. Most of the comments about the students deal with student grievances regarding the technology itself. Rose feels that it is these technical issues that waste the students' time (line 56) and lead to growing negativity among the students on the course. Rose 'feels' for the students and their problems and recounts personal stories of having seen student overcrowding at the computer laboratories (line 29). Rose also exposes problems with student's basic computer literacy (line 124) but does not mention this as a possible reason for their lack of progress with ICT and neither does she mention the bad habits that students normally expose in face-to-face and online courses (as mentioned in Walter's interview) as a possible reason for overcrowding in computer laboratories just before due dates for assignments. Rose is clearly looking at ICT in education 'through the eyes of the student' exposed to the use of ICT in education for the first time without focusing on the issue from the perspective of the lecturer on strategies to improve teaching and learning with technology. Achieving the balance between these two perspectives is the ultimate aim and is the cause of this first tension.

Rose clearly sees the problems of the students through the eyes of a mother looking at her students as her 'children.' She uses the experiences related to her by her own two sons (line 57) to describe cases of poor teaching practice using technology (albeit in another Faculty at the HEI) and states the negative perceptions of parents regarding the financial aspects of ICT in education that this mode of teaching is placing extra financial burdens on families.

Rose 'inherited' a tutor to help with administrative and tutoring tasks in the course but clearly sees the tutor as an 'extra interference' between the student and the lecturer with 'too much power.' **“en dit het ook in die verlede probleme veroorsaak, met so n tutor wat tussenin kom, wat punte toeken aan hierdie besprekings van die studente, en dan is die studente ongelukkig oor die**

punt, dan sê hulle maar hoe kan so tutor in ons geval spesifiek wat self nie eers n graad het nie, hoe kan sy 'n punt vir 'n student toeken vir 'n bespreking. So ja, hoeveel van hierdie tutors is werklik mense wat daai kennis het en dit kan doen?" / (*"and it also caused problems in the past, with a tutor intervening, awarding marks to these student discussions, and then the students are unhappy about the mark, and then they ask but how can a tutor in our specific situation who does not even have a degree, how can she award a mark for a discussion. So yes, how many of these tutors have this knowledge and are capable?"*) Speaking from her own personal experience she questions the 'power' of tutors in online courses and what they are 'allowed' to do in such a course. "so nou het jy nie meer n dosent-student verhouding nie, jy het nou al klaar n persoon tussen in wat gedurig moet verander en almal het frustrasies..." / (*"so now you do not have a lecturer-student relationship anymore, you already have a person in between to make constant changes and everyone has frustrations..."*). This tension seems to be caused once again by Rose not having being involved in the initial decisions about teaching strategies and administration of this course and having to fall in line with the ideas of the other course presenter.

Although Rose has mentioned students and tutors as part of her greater ICT community she does not seem to place herself into any specific community at all. Throughout the interview Rose speaks as an 'outsider looking in'. The tension that is identified here seems to be one that is partially caused by being a novice and not quite fitting in to the developing ICT community. This is also evident when Rose questions all aspects of other lecturers engaging with ICT in their teaching (line 139-143). She identifies bad planning and design of learning tasks by lecturers as a problem that may lead to the student apathy and frustration that she encountered. She exposes other lecturers in the Faculty simply placing large amounts of content on the web (line 143) and others who are just dumping their lecture notes and transparencies into the WebCT environment (line 147). She goes on to make the claim that many lecturers are using WebCT without proper knowledge of pedagogy (line 216).

4.2.9.2 *Tensions between the subject and the object*

Rose's engagement with the tools of ICT seems to be limited to what she did in the initial implementation of the course with her colleague and the subsequent implementation of the same course that she modified drastically and presented alone the following year. It is evident that Rose has used the discussion forum (line 66) and made use of group discussions but that she does not find much use in this tool. She points out the need for the online and printed study material to correspond and points out that differences between these two can lead to major frustrations among students (line 18). These observations regarding good practice for teaching online are a major improvement from someone who professes to have found search engines frustrating.

By allowing students to interact with the online components of the course during certain face-to-face sessions in the second year of implementation, Rose attempted to address the technical issues she had identified in the first year: **“..ek het byvoorbeeld my studente geakkommeer, ...die helfte van hulle lesing per week het ek hulle in E Lab geakkommeer, sodat hulle die tyd in hulle lesingtyd het om werklik voor die rekenaar te sit en te werk.” / (I did for example accommodate my students, ...at least half of their lecture per week I accommodated them in E Lab, so that they would have time during their lecture to really sit in front of a computer and work”)**. This is a visible sign that Rose has purposefully attempted to change her way of teaching to incorporate ICT even though the second implementation had a greatly reduced online component and relied more heavily on face-to-face contact.

4.2.9.3 *Tensions between the subject and the division of labour*

Another tension is exposed when Rose speaks about having to work alongside a more senior colleague (line 10) teaching part of a course that was not designed by her. Working together with someone who thinks like you often has the potential to cause friction but in this case two lecturers with totally different approaches and divergent agenda's (see Ester's interview) were put together to teach a large

group of mostly computer 'illiterate' students (line 124). Rose approached the course from the perspective of a 'traditional' teacher who was faced with learning about new technologies and coping with a number of students also with varying technical abilities. Her colleague approached the course for self proclaimed 'selfish reasons' wanting to find out how students learn with the new technology but also attempted to change her way of teaching to suit the online medium and aimed to teach the students in a new and mutually beneficial way. Both lecturers, however, had the best interests of the students at heart.

A further division of labour in the Faculty is revealed when Rose shows a lack of understanding of other colleague's attempts at using ICT for teaching (line 166-170). This indicates a number of lecturers who are actively involved and others like Rose who are not; and a further division between those who are successful and those, once again, who are not.

4.2.9.4 *Tensions between the subject and the mediating artefacts*

Rose admits a lack of experience to be able to make claims about ICT but then makes a number of controversial statements about a number of ICT related issues. Institutional issues such as number of computers (line 24), internet access/bandwidth (line 13), and lack of printing facilities (line 34) are mentioned as major issues of concern. Rose claims too that it is the technology that is causing most of the unnecessary frustrations experienced by students (line 93) but nowhere in the interview is any such statement backed up by theoretical evidence. The statements seem to be purely emotional and based on personal (line 56) and student interpretations (line 40-49) of specific situations. There may be a lot of truth in these claims but a lot of the negative aspects mentioned in the interview could have possibly been avoided by using a number of teaching strategies and activities that lend themselves to the online situation. In order to explain this tension further it is necessary to look once again at the subject (Rose).

Rose expresses at least twice in the interview how she needs to be in control: "**Ek, ek is n persoon wat hou daarvan om in beheer te wees, en hoe meer mens**

betrokke is, smaak dit vir my... ek verloor beheer.” / (*I am a person who likes to be in control, and the more one is involved, it seems to me... I lose control*”). In many situations during the implementation of the course she claims to have felt as if she had lost or released control over the activities within the course. She shows a preference for what she is comfortable with and suggests that text books and paper-based journals are more reliable than the web: **“ek voel op hierdie stadium, solank as wat ‘n mens die studente kan akkommedeer op die kampus, in die klas, met goeie studiehandleidings, goeie lesingsmateriaal, weet ek nie of ek werklik vir eers wil gebruik maak van e-leer nie.” / (“I feel at this stage, as long as one can accommodate the students on the campus, in the classroom, with good study guides, good lecture material, I don’t know if I really want to make use of elearning.”)** Her focus is on easy access to good sources of knowledge. Rose has heard success stories regarding ICT in education (line 250), but possibly due to the characteristics mentioned above and the first bad experience she had with teaching online, she is inclined not to believe them. Possibly due to her background as a teacher and her claim that ‘eye contact’ and ‘face-to-face teaching’ are essential in the teaching process, she still sees ICT as cold and impersonal: **“Vir my, is daar niks wat ooit daarby sal uitkom as n persoonlike interaksie van n dosent teenoor n student...” / (“For me there is nothing that will ever match the personal interaction between a lecturer and a student”).**

Rose also claims that ICT can become a ‘back door’ for lecturers with poor face-to-face teaching skills and implies that poor teachers will adopt ICT more easily: **“Raak dit nie vir van die dosente n “agterdeur” as hulle nie hulle werk in die klas doen nie, en nie betyds voorberei nie en nie betyds die leeswerk reg het vir die studente om dit maar op die web te sit nie?” / (“Is it not becoming a “back door” for certain lecturers to place it on the web if they are not doing their work in the class, and do not prepare on time and do not have the reading material ready for the students?)**

4.2.9.5 *Tensions between the subject and the rules*

The only reference to rules or policies in Rose's interview is when she admits 'having to' work with a colleague in teaching the online course. 'Having to' in this case implies power relations within the Faculty where Rose was asked to teach the module even though she felt uncomfortable with the idea. There is further no mention of government, HEI or even Faculty policy in this interview and the only other mention of related issues is when Rose mentions the 'level of student's computer literacy' which can be linked to ICT norms and standards that propose what the students should be able to do at this level.

4.3 SUMMARY OF THIS CHAPTER

In this Chapter I have elaborated on the processes and procedures that were carried out during the analysis of the interview transcripts and a number of tensions or contradictions that drive the individual activity systems have been identified through the analysis of data obtained from the nine individual interviews. In Chapter 6 I offer a further analysis of the commonalities between the nine sets of data in this Chapter and reflect further on their significance in this inquiry.

In Chapter 5 I argue that the discourse about information technology within the social context of the Higher Education Institution is often overlooked by lecturers and researchers as a means of understanding the effects of the 'recent' emergence of ICT in education and a narrative analysis of these same nine interviews will be carried out in order to illuminate this issue further. This section will reveal a search for narrative discourse using Activity Theory once again as an analytical lens.

CHAPTER 5

EXPOSING GENERAL SOCIAL PROCESSES THROUGH NARRATIVE ANALYSIS

5.1 INTRODUCTION: NARRATIVE ANALYSIS

In this thesis I portray narration as a complex social process. Chase (2003:290) points out that many researchers who study narratives produced during interviews concur that it is possible to learn about general social processes through analysis of specific narratives. I have already argued that the discourse about information technology within the social context of the Higher Education Institution is often overlooked by lecturers and researchers as a means of understanding the effects of the 'recent' emergence of ICT in education. This Chapter now explores this phenomenon through a narrative analysis of nine interview transcripts from lecturers using ICT in their daily lives at the HEI. The organisational and social contexts into which ICT is integrated at the HEI will be explored through the narratives in this Chapter as a major factor that may influence whether or not lecturers change any of their general social processes, including their fundamental ideas about teaching and knowledge (which is the main focus of this inquiry).

“Understanding general social processes requires a focus on their embodiment in actual practices, that is, in actual narratives. In other words, life stories themselves embody what we need to study: the relation between this instance of social action (this particular life story) and the social world the narrator shares with others: the ways in which this narrator makes use of cultural resources and struggles with cultural constraints. By analysing the complex process of narration in specific instances, we learn about the kinds of narratives that are possible for certain groups of people, and we learn about the cultural world that makes their particular narratives possible – and problematic – in certain ways” (Chase, 2003:290).

By taking note of the content of each narrative, and any hint of ‘disjointedness’ in the telling of the stories, I aim to expose the boundaries of cultural discourse about professional work of lecturers engaging with ICT at the HEI. Smoothly narrated parts of the transcripts, which may be seen as segments of the story that depict comfort with certain aspects of engagement with ICT (compare Chase, 2003:290), will also be used to point out the very specific cultural discourse that has developed among these lecturers. The general social processes that are of particular interest to me as researcher in this inquiry are the *changing epistemologies and pedagogies* of these lecturers as they engage with ICT in their daily practice as educators. I argue that changing epistemologies and pedagogies qualify as social processes and that evidence of their existence is embedded in the stories told by the lecturers’ themselves.

As educational technologies develop, the role of narrative has become more prominent, indicating that the distribution of cognition (Brown, Duguid & Collins, 1989; Salomon, 1993; Brown, 2000) cannot rule out the influence of lecturers’ stories and their emotional and social content. Bruner (1996:133) supports this view by stating that narrative can be used as a context for much of ‘human-with-tool action’. This Chapter, therefore, presents excerpts from narratives of the nine lecturers’ first encounters with the tools of ICT, constructed from the analysed interview data and with verbatim data linked into the excerpts. The data that were collected were from the nine individual narrative interviews that were carried out with purposefully selected participants (Merriam 1998) as described in the previous Chapters. These data were also narratively-rich (Clandinin & Connelly, 2000) and had sufficient ethnographic qualities (Wolcott, 1994) to justify the interviews in which they told their experiential stories – the “way of life” (Wolcott, 1994) that they had cultivated during their engagement with the tools of ICT (see also Henning & Van der Westhuizen, 2004).

Table 5.1: Working the data towards narratives (Adapted from Henning & Van der Westhuizen, 2004).

Data source Working procedure	Narrative Interviews
Content analysis – coding and categorizing	What lecturers actually said – coded strictly in terms of content and then categorised and clustered in grounded theory mode
Discourse analysis – identifying discourse markers related to how lecturers were constructing meaning of course content and mediation, support, and social context	Locating lecturers’ talk/text in a discourse and identifying references to discourses. Capturing how they were making sense of their experience by invoking these discourses
Narrative analysis – identifying stories of experience – locating sequential markers, characters, settings, actions, tool use	Capturing the elements of lecturers’ experience in narrative

The above Table illustrates how the whole idea of capturing *content* as well as *discourse* eventually led me, as researcher, to the related *stories* that would possibly not have emerged through other forms of analysis. The narratives were thus constructed systematically from the various data sources. Content, discourse and narrative data were crystallised into elements of the eventual stories (Henning & Van der Westhuizen, 2004). In the rest of this Chapter, I will present excerpts from these stories that expose the emerging epistemologies and pedagogies of these lecturers ‘as told by the lecturers themselves’ during the nine narrative interviews.

5.2 LECTURERS' STORIES

Even though some of the participants found the narrative interview different from what they were used to as 'seasoned researchers' themselves and tried to revert to the 'traditional' semi-structured interview format (see Susan's interview for example), in all cases I was still able to guide the flow of the interviews in order to elicit a variety of narrative segments. In other words, I was still able to approach the subjective world of each participant in a comprehensive fashion without having to rely on simple question –answer techniques. Each of the narrative segments in this Chapter outlines a definite beginning followed by a logical progression of events. Each narrative demonstrates the changing nature of situations and how they eventually lead to the participant's present situation. I have already elaborated in Chapter 2 on how I aim to emphasise the performative approach in this study seeing story-telling as a reciprocal event between the story-teller and the interviewer" (Riessman, 2002:701). The lecturers' 'preferred identity' will be revealed in the stories they tell. This implies that I will be looking firstly at *the kind of story that the narrator places him/herself in*; secondly, *how he/she locates the other characters in the story* in relation to him/herself; and, *how the narrator relates to him/herself, i.e. what are the identity claims that the narrator makes?* The identity of the lecturer is situated and accomplished in social interaction and in no way should be seen as inauthentic. By viewing all of the above-motivated factors as part of the three-dimensional narrative inquiry space as proposed by Clandinin and Connelly (see Paragraph 2.3.3), I aim in this analysis to derive interpretations and write research texts in the form of narrative segments that address personal and social issues while also addressing temporal issues by not only looking at the event but also to its past, present and future (Clandinin & Connelly, 2000:50).

In order to 'see' the narrative segments using the same Activity Theory analytical lens as before, I have arranged each of the nine sets of data as derived from the basic content analysis in the previous Chapter into tables based on continuity (temporality), and used this as a starting point in the analysis to identify further

tensions in the activity systems and to initiate the narratives themselves. I present one of these tables here as exemplar and the others can be viewed in appendix K.

Table 5.2: Temporality / continuity of David's data

	Past	Present	Future
Subject	Motivated by student enthusiasm Stressing student enjoyment of course Confirming student enjoyment based on research Positioning himself as practical person Making claim to be self-taught Identifying difficulties in initial endeavour's Making claim to have been the pioneer Making claim to be 1 st user of CMS Downplaying role in initial process Identifying initial status as lecturer Identifying lowly beginnings as an academic Affirming beginner status Admitting limited pedagogy in early career Identifying less demanding situation as an initiator Stressing need for help as an academic Stressing need for a mentor/starting off alone Identifying personal history as a teacher Perpetuating existing/familiar teaching styles Exposing separation from students as problem/ missing interaction Participating himself as an e-learner Changing ways of managing courses online Changing approach due to maturity Stating 'turning' point in career	Increasing workload Managing daily tasks Changing work habits Expressing enjoyment Showing enthusiasm Learning new things Doing new things Learning by doing Making claim that learning by experience is the way to go Offering assistance to willing staff Teaching by example Selling idea by showing what works Being responsible for deployment & development Gaining experience through reviews Stressing other work demands /obligations Highlighting changed role in the Faculty Showing knowledge of literature Stressing importance of reading Reading relevant literature Expressing desire to stay up to date Suggesting that uptake depends on context	Identifying changed job description Showing improved self-confidence Suggesting ways for improving knowledge in the field Wanting to be a leader in the field
Object	Identifying problems with face-to-face teaching Identifying differences between online and face-to-face modes	Integrating ICT & face-to-face teaching Identifying subject knowledge as essential for growth Stressing importance of theoretical knowledge Substantiating actions with theory Stressing importance of context Contextualisation of theory Adapting theory to local situation Illustrating unique SA situation & student profile Changing focus from technology to methodology	Finding best methodologies to improve teaching Experimenting with methodologies Re-designing teaching methods Identifying learning activities as the main focus Choosing pedagogy based on teaching goals Looking beyond window dressing

Mediating artifacts	Seeing potential for ICT Making a case for use of ICT Showing high regard for ICT Acknowledging shortcomings with ICT	Confirming growth in the field of ICT Identifying rapid growth of ICT Acknowledging improvement in ICT use Proposing reasons for non-uptake of ICT	Identifying growth in field of ICT in education
Rules	Rejecting compulsory participation Stressing funding for first time	Claiming that ICT is not used to full potential Claiming that technology is the hurdle Exposing technological issues in local context	Identifying government policy as NB factor
Community	Highlighting student satisfaction Identifying positive response from students Exposing more demands from students Identifying scepticism in older staff Identifying apathy in older staff Admitting that all have a lot to learn Making claim that some will not change Stressing importance of qualified support staff Acknowledging growth of ICT support staff numbers Acknowledging difficult nature of ICT support staffs' jobs Claiming that some lecturers are interested Claiming that lecturers do not know enough to be interested	Developing in different directions in the field/hard to be expert in all fields Placing demands on lecturers Exposing time constraints of lecturers Accepting that some will not change Resigning to the fact that some people never change Exposing comfort zones in some staff Arguing if things work, lecturers may not want to change Claiming that ICT is well-enough established for own decisions Suggesting wrong approach by support staff Exposing new fields of interest for researchers/academics Reviewing others' courses	Stressing need for someone to continue as expert in the field Painting picture of expert in the field Identifying experience as major factor Making a case that experience leads to confidence Identifying experience as key factor in ICT uptake
Division of Labour	Communicating with management Claiming resistance from management early on Meeting resistance from management Feeling excluded initially in Faculty Receiving support from Faculty Expecting resistance from colleagues	Acknowledging differences in people Claiming that it is easy to put off less experienced lecturers through negativity	Positioning self as an academic

The components of the activity system plotted onto the above table for each participant provides a mere starting point for each of the nine analyses using Activity Theory once again as an analytical tool. This analysis is then supplemented by further discourse analysis and the conceptualisation of narrative segments from the interview transcripts. Each narrative then starts with a short description of *the kind of story* each participant places him/herself in. This covers the notion of place (situation) and sets the scene for each narrative. I then describe *how each participant positions themselves and others in the story* with emphasis on the personal and the social (interaction). This is followed in each

case by an elaboration on the *identity claims* made by each participant. Each of the three above-mentioned sections are loosely based on what the participant did in the past, what they are currently doing, and what they aim to do in the future (continuity/temporality). I end each narrative with a specific focus on the nature of each participant's emerging epistemology and pedagogy.

5.2.1 David's Story: The conquering Crusader who lived to tell the tale

David's story is the tale of the *crusader* who left the relative safety of his 'home' and set out on a 'pilgrimage' to spread the word about ICT in education and fight for its recognition and existence in a hostile and challenging environment at a Higher Education Institution. David describes very humble beginnings as a school teacher completing post graduate studies who was working as an assistant to a professor at the HEI when he saw the need to explore the possibilities of teaching using technology and exposing this 'new' field to the lecturers there. David's crusade continues as the story develops and tells of a lone crusader who braved initial resistance to his cause, overcame many setbacks and feelings of initial exclusion, and eventually commanded a large following and respect at the HEI. Just like the crusaders of old who were helped by a variety of benefactors, David drummed up support from HEI management and the Faculty of Education and began a movement for teaching using ICT that has grown from strength to strength. David speaks in his narrative of a brief secondment to a non academic department where it was his brief to sell the idea of teaching using technology to the HEI. Just as the early crusaders would have tried to convert all in their paths, David carried out this role until the use of course management systems (CMSs) had been established campus wide. David admits to completing this task successfully and then returning to his role as a lecturer and academic just as many returning heroes from the Crusades might have done.

David initially situates himself in the story as a young, inexperienced but enthusiastic academic who began his career as a "professors assistant." He totally downplays his role in the introduction of ICT to the teaching community at the HEI in the story but humbly recognises this feat as a major contribution to the

higher education community later in the story and ultimately speaks with pride from the position of a *leader and expert in the field* about these exploits and possibilities in the future. David now clearly positions himself once again as an *established academic* with no further agenda to 'sell' the idea of teaching with technology. He is still willing to offer assistance and support to willing staff but aims mainly to teach by example, showing what is possible to those who are willing to see. He highlights his changed role within the Faculty but also stresses his continued desire to remain a leader in his field.

David positions the students in his world as an 'indicator of success' with the use of ICT in his teaching. Student enthusiasm and satisfaction are the indicators he identifies to motivate himself to continuously improve the learning process for students. David relates to the lecturers within the Faculty as 'brothers in arms' who have joined with him in this quest. Using words like "we all have a lot to learn..." David clearly places these lecturers in the same category as himself but goes on to differentiate between his 'soldiers' by categorising them. Besides those who continue to use ICT in their teaching he mentions scepticism and even apathy in older staff members. He realises that this is due to new demands being placed on staff and time constraints but is quick to admit that not everyone will change. He ascribes this to 'comfort zones' and argues that if things work as they are, lecturers may not want to change their way of teaching. David sums up his position about staff members when he claims that ICT is now well enough established at the HEI for them to make their own informed decisions.

With regard to his identity, David portrays himself in the early parts of the story as the *'self taught pragmatic pedagogist'* who liked to be actively involved in discovering the best ways to teach using technology. He suggests that 'learning by doing' is the best way to learn these new things and that there is no substitute for experience. At present he is comfortable with his 'changed role' in the Faculty as an established academic and even though he is no longer 'leading the charge', he still expresses the desire to remain up to date with educational ICT issues and demonstrates this desire through his actions. To this end he still reads widely in the field of educational technologies and constantly introduces new fields of

interest, research possibilities, and various topical ICT matters to relevant parties within the Faculty. David admits that there must be such an 'expert' in the field within the Faculty to expose new issues to the lecturers and researchers and stresses the need for someone to continue in this role of educational ICT expert in the future. He paints a picture of this 'expert in the field' in his narrative by speaking about him in the third person. In doing so, David hints at the fact that he is still shouldering most of the responsibility in this role and it is also evident that he aims to continue to do so as long as he is required to do so or until a new 'leader' takes over or shares the load.

Concerning his own emerging epistemology and pedagogy David admits to a limited theory of teaching with ICT in his early career but credits his general knowledge of teaching to his early years of experience as a school teacher. In these early months of his academic career at the HEI David already began to identify problems with face-to-face teaching and recognised colleagues perpetuating the type of teaching he had become accustomed to at school level. At this early stage he had already identified differences between online and face-to-face modes of teaching and his changing focus from technology to methodology. He soon progressed to integrate the two modes of teaching where he discovered the importance of sound theoretical and subject knowledge. From that moment on, David subsequently substantiated all of his activities in his online teaching with theory. He currently displays awareness of the latest available literature and most up to date research in the field of educational ICT and repeatedly stresses the importance of theoretical knowledge in his narrative. A further development of this theme is that David highlights the contextualisation of theory and the adaptation of theory to the unique local situation. In the future, David aims to continue trying to find the best methodologies to improve his teaching, and his hands-on approach should lead to a lot of experimentation with various methodologies. He now sees learning activities as the main focus of his online teaching and he professes to adapt his online pedagogy for every activity based on teaching goals.

5.2.2 Susan's Story: The chameleon who learned to blend in

Susan is a senior professor and head of an academic department who has recently been promoted to the position of Deputy Dean within the Faculty of Education. Susan narrates a story of the *chameleon* slowly adapting herself to match the colours and rich textures of her surroundings. She does not do this in order to hide away in her world but rather to blend in and feel comfortable amongst the other components of her ecosystem and to be able to see things from their perspective. She tells of using the Internet for day-to-day enrichment in her work, personal life and research and of how the technology has changed her entire way of thinking. By being in touch with her environment in this way, Susan finds that she can work on a number of things simultaneously, and professes to be able to be more aware now of the way in which she works. She ascribes this to the distributed nature of the content on the web and having to think about how things relate to one another at all times. Just like the chameleon, Susan does not have to be concerned about what is happening in the 'background', and can rather channel her energy into manipulating the environment in her favour. Like the chameleon who has picked up experience and is aware of her surroundings, Susan admits to the relevance of having an educational background when exposed to the field of ICT. She demonstrates knowledge of the tools of ICT even though she professes in her story to have not used them much in her teaching, and ascribes this to being exposed to colleagues who have achieved some success in their teaching with technology. By keeping an open mind and taking an interest in what is happening around her, Susan has formulated an opinion without actually having taught much herself using ICT. What she lacks in personal experience is cancelled out by her tenacity and drive to be well informed in the field of educational ICT.

Susan immediately situates herself in the story first and foremost as a *researcher* and elaborates on the role of computers in her daily tasks at the HEI with emphasis on her role in management. She quickly refers to her role as departmental head, seemingly in order to explain the 'uniqueness' of her position within the Faculty and perhaps to provide reasons why she has not yet had much

experience with teaching using technology. She then situates herself in the role of *manager* and speaks at length in the past tense of her experience as a *teacher* highlighting her changed role within the Faculty.

A second important performative aspect of Susan's narrative is the way in which she positions other lecturers within the Faculty, in relation to herself in her story. It is evident from this that Susan sees the potential for ICT in the establishment of learning communities for lecturers through the web in which she can play an active role as a community member. She has the same idea for establishing a relationship of togetherness and interaction between herself and her students and advocates the use of face-to-face contact sessions to first establish these communities that she then intends to maintain online. This is evident from the way in which she speaks about communities of inquiry and how the web is an excellent tool for sustaining these communities. Susan then separates herself from other lecturers by stating her belief that lecturers must have a well developed theory of teaching in order to be able to teach using ICT. In doing so, Susan implies that some staff members do not have this quality and she backs up her claim by showing awareness of some lecturers 'perpetuating bad teaching habits online.' She is well aware of the potential for ICT as a dumping site for content, and maintains that all lecturers still have a lot to learn. As departmental head, Susan has had the opportunity to interview all staff members and claims that lecturers all think they are 'experts in the field of education' when in fact, some are in serious need of education in the field of teaching with technology. On the other hand, Susan clearly shows in her narrative that she has the best interests of the lecturers at heart and that she is aware of the need for support for those engaging with the tools of ICT in their teaching. She is aware of the variety of 'problems' in this field and suggests solutions to a number of these issues. Like the chameleon within the ecosystem that relies on complex interaction between a number of components, Susan positions her staff (people) and not only the technology as an important part of her ICT environment.

With regard to her identity, Susan portrays herself in the narrative firstly as a *head of department*, an *expert in the field of human learning*, a *researcher*, a *teacher*,

and finally once again as a *manager*. She narrates the story of a long and successful career in teaching but places the focus now directly on administrative and managerial matters at the HEI. The identity claims that Susan makes in her narrative are examples of identities in conflict that she slowly came to terms with in her life. Through a discourse of change, Susan succeeds in painting a picture of a transitional period in her life where she is preoccupied with structural changes due to the merger of institutions and departments at the HEI and with planning for the future (It must be noted here that shortly after the interview with Susan, she was promoted to the position of Deputy Dean of the Faculty of Education, explaining this point).

Concerning her own emerging epistemology, Susan reveals her field of expertise to be human learning which she still explores in her research at the HEI. She also professes not to have changed her teaching methods much over the past few years and with regard to her pedagogy is still using the 'same old principles' for teaching online. This seems to work for her because of her notion that 'teaching must be seen as dialogue' and that it is a 'process of collective inquiry in which students and the teacher explore together.' She ascribes this to the fact that the tools within the course management system very much support this 'co-inquiry.' To this end, she claims to be 'doing what she has always done' on the web indicating that a well developed personal epistemology and pedagogy is perhaps the secret to success when teaching online. Unlike Rose, who claims to be comfortable with what she is used to (and prefers face-to-face contact with the students), Susan's comfort is different and can be ascribed to a deeper knowledge of human learning and a willingness to explore new avenues using her fundamental knowledge on the topic to the benefit of both herself and the student.

5.2.3 Brian's Story: The man who found a new lease on life

Brian, a senior professor in the Faculty of Education, narrates a story of a man who has been doing the same routine job for a number of years who suddenly finds a *new lease on life*. The lecturing fraternity within the Faculty can be seen as

his extended family and the HEI as his home. Not unlike some men who experience what is sometimes referred to as a 'mid life crisis' and go off and do strange things seemingly out of context like growing their hair and purchasing a Harley-Davidson motorcycle, Brian admits that designing and developing a course for multi-modal delivery is the most exciting thing he has done in the past ten years. He is unable to pinpoint exactly what excites him about this new venture in his life but he admits that he is 'hooked' and that at times he cannot bear to tear himself away from his work. He even finds himself lately putting his ICT work before other important tasks and functions at the HEI.

Brian initially situates himself in the story as '*one of the crowd*' in a family of lecturers who attended a number of courses on how to teach using ICT. Unlike the other lecturers who attended the courses, Brian separates himself from the crowd in his story by approaching the newly appointed ICT support division at the HEI with the view to "do the whole gig." He ends the introduction to this narrative by expressing that if he had been left to his own devices at that stage of his career, that he would have soon become frustrated as in the past, and ended up procrastinating and denouncing the possibilities of teaching with ICT. By letting the ICT support division eliminate a lot of the technical issues that were bothering him, Brian was then left to once again become the '*subject specialist*' and stand out from the crowd. From this point on, Brian's narrative is characterised by a discourse of teamwork and belonging. He speaks of "we" and "us" and is not willing as a '*team player*' to take full credit for the design and development of the entire module. This team, however, is not the same one that he originally placed himself in (the team of lecturers in the Faculty of Education) but a new family consisting of the ICT support staff members, designers, developers and other key role players.

Brian positions the students in his narrative as *lazy children* in the family who have not been expected to do much up to now and are only recently being forced to take charge of their own learning. He finds the increased time with the students beneficial and admits to learning more from the students than before. He finds himself in the unfamiliar position in his story where he tells of having limited control

over student work. He speaks of his changing role as an educator and how he finds it difficult to move away from being the 'centre of attraction' in the teaching process to facilitator and guide. Later in the narrative Brian seems to come to terms with this 'unfamiliar feeling' and makes peace with the idea through seeing the benefits of making the students responsible for their own learning. The only concern that he raises is that the 'better' students will benefit more from this way of teaching using technology. This is not related to access to technology or logistical or financial issues in any way but is based solely on Brian's opinion that the good student will naturally 'do more' and in doing so will consequently be exposed to so much more than before.

Early in the narrative, Brian positions the lecturers in the Faculty as equals in the larger family group but soon separates himself from them, seeing them subsequently as close relations who have 'strayed from the flock' who are in need of guidance and support in order to regain their position in society. He ascribes their downfall to procrastination and fear of the technology but confirms that lecturers can be motivated to teach using ICT by exposing them to examples of good practice and by simply getting them involved. He sees these lecturers as unique individuals who will all learn differently but claims in the same breath that ICT may not necessarily benefit every one of them. In the future Brian suggests that lecturers be given the 'space' to be creative and predicts that various lecturers will all encounter different experiences with ICT. Brian has a dialogue with himself at one point in the story where he first suggests forcing lecturers to use ICT in their teaching and then questions whether or not this is such a good idea after all.

With regard to his identity, Brian portrays himself first and foremost as an *educator*. His passion for teaching is evident in his concern for students and their welfare. He wants them to become involved in the learning process and is excited by the way in which he is now able to make them responsible for their own learning. A second identity claim is that he is a *creative person* who has always come up with unique and new ways to teach certain concepts. He ascribes the freedom to be creative to not having to worry too much about technical issues in the design of the module which he has relinquished to the ICT support division.

He also identifies himself through his discourse as a *proud achiever*. He expresses amazement at what he has done up to this point and ‘speaks as one who has mastered something substantial.’

Regarding his personal theories of knowledge and teaching, Brian goes right back to his history as a physical science teacher at school level and elaborates on how he used to teach at that level and how his teaching has not changed much over the duration of his career. He claims to have been creative then and that he is still “normally quite a creative guy.” He ascribes his general knowledge of teaching to his early career as a teacher and admits to having tried various ways of teaching in the past. He even admits to boredom with the way in which he taught certain concepts in the past and adds that he had not, until recently, even considered teaching using the tools of ICT. At present, Brian has gained experience in teaching using technology but thanks to the technical support during the design and development phases, he has been afforded the ‘extra time’ to conceptualise innovative ways to teach basic concepts using technology. He tells of being able to find new ways to teach, and of how he has even improved his own subject knowledge by reflecting on the design of learning activities. He addresses the similarities between face-to-face teaching and teaching with technology indicating a practical working knowledge of the basic theory behind each mode but also expresses the desire to ‘do more advanced things in the future.’ Brian already envisages using more interaction and more complex animations in his future teaching and speaks of complex online tutorials, the simulation of real-life activities, and online assessment in future courses. He does not speak of the implications for the design and development of such activities at present and does not elaborate on his role in this process. He seems to realise his limitations but has enough enthusiasm and theoretical knowledge of teaching online to dream of these activities becoming a reality. In the meanwhile, Brian is content with pursuing educational ICT issues through research.

5.2.4 Mark's Story: The traveller who lost the urge to explore

Mark narrates a story that is situated mostly in the past. All of the references to his present situation at the HEI as a lecturer are based on his early dealings with teaching online, and a lot of the comments he makes are based on what he sees happening around him. This is a story of the *world traveller* knowledgeable about many countries in the world who set off in order to explore a new and uncharted country. In order to cope in this new world Mark tells of how he was obliged to try out new things that he had not done before anywhere else in the world. In some cases, he overwhelmed the local population (students overloaded with content) and in other cases he found he was repeating himself to get simple things done (duplicating work online). Because of the lack of understanding between himself and the locals, Mark also found that a lot of time was wasted and that he was neglecting his main aim which was to interact with as many of them as possible. He speaks of wanting to increase contact and participation and of how he failed in this endeavour even with the help of tour guides (tutors in the online course). He then tells of other explorers (new lecturers) joining him in this new world and how they also attempted to make sense of the situation there (teaching modules using ICT). He was no longer alone in his travels and was subsequently able to observe the various approaches of fellow tourists and how they interacted in this unfamiliar situation. Mark soon refined his 'approach' and began to use only certain tools at his disposal (mostly the communication and administrative tools of WebCT) to improve communication and support him in making sense of this world. Ultimately, he tells of how he was able to make sense of his new situation through 'learning by doing.'

Mark situates himself throughout the story as a *tourist* who has recently visited a place in the world and has had the opportunity to 'live in their world for a short while.' He speaks at length about what happened during this time and speaks briefly about a number of events that he took part in and 'places' that he has seen. Like any tourist he has fond memories of some of these things but also identifies times and happenings that in his opinion were less meaningful. After his initial exploration of this new world, Mark was content to sit back and allow other

'tourists' to continue to discover more about this world. He now positions himself as an '*armchair explorer*,' not unlike the television viewer on the 'Travel Channel' who can relax in the comfort of his home and discover the secrets of new and exciting locations, as seen through the eyes of another tourist. Since his early sojourn into the world of teaching with ICT, Mark has not returned.

When relating to fellow lecturers' at the HEI, Mark speaks about them in the third person. He creates the impression that he is talking about 'them' but many of the things he says are directive indicators of his own situation and his own shortcomings. He seems to find safety in associating himself with the crowd. Mark claims to know about the very few lecturers who are using ICT effectively in their teaching and ascribes this to their different approaches to teaching in general and their lack of knowledge about ICT in teaching. He even identifies lecturers using trial and error in their initial attempts at teaching using technology. He stresses the importance of theoretical knowledge of ICT (something he professes to have limited knowledge of) and education in general and claims that this can only be addressed by learning from experience. He also hints at the fact that not all lecturers have acquired the basic ICT skills needed to function at this level. Mark positions the students in his story as *demanding clients* who are being exposed to a totally different and new product. He confirms in the story that ICT, as a 'new product,' has totally changed the way in which students are expected to learn. These student 'clients' will make certain demands as a result of being exposed to this new product and Mark warns of a few things he has observed like not overloading the students with too much content or overpowering them with a multitude of links to web sites. He admits to neglecting some students in his online courses due to 'sheer numbers' but also points out that this may not have been totally his fault when he exposes a lack of infrastructure amongst students and many logistical problems in this regard, the most common factor being Internet access and even limited availability of computers at student homes. Although Mark sees the students as demanding clients, he also points out that they are also largely *uninformed* about the use of ICT for teaching and learning and that many of their claims and demands may be unfounded.

The first identity claim that Mark makes is that he is an *'explorer.'* As one of the first lecturers to use the new course management system for the teaching of a course module, Mark was exploring uncharted waters. When others joined the exploration process, Mark was then content to sit back and allow them to continue doing the ground-breaking work. No further identity claims are made in this narrative.

With regard to his own theories of knowledge and of teaching it is important to note that Mark sees ICT as a field on its own, and even describes it as *'someone else's field,'* clearly indicating that he has not yet incorporated these into his teaching practice. Mark claims early in the narrative to have been initially uninformed about the use of ICT in teaching and admits that his initial focus was on *'applying the technology.'* Based on a brief period where he was actively involved in online modules, he is now able to expose and discuss a number of topical issues related to ICT and teaching in general. Even so, Mark expresses uncertainty as to ICT's potential usefulness at present, based on his observation that some lecturers do not change their way of teaching when teaching online and tend to repeat what they normally did in face-to-face contact sessions. As an educator, he is aware that this is an example of *'petrified pedagogies'* or pedagogies that have not changed to meet the demands of a new medium. Mark's awareness of the need to adapt his pedagogy for teaching online is evident from his discourse but it is also clear that he has not yet personally attempted to do so. He does, however, indicate that he will seriously consider using ICT in his teaching in the future if it can offer something that normal face-to-face teaching at the HEI cannot. He speaks of this as *'value added.'*

5.2.5 Ellen's Story: Finding the foot to fit the glass slipper

In Ellen's interview transcript I see a typical Cinderella story. It is the rags-to-riches story of a successful senior academic who gradually *'lost touch'* with colleagues within her field of interest and ended up working in isolated projects with colleagues who also eventually developed diverging fields of interest or

simply made drastic career moves away from the HEI leaving her 'alone' in her academic discipline. As a result of these events, Ellen was left to work on her own for a period of time but soon realised that this was an unhealthy situation and even further attempts at collaboration with another colleague in a 'new field' led to dead-ends and in her own words "a feeling of isolation I could not understand at the time." Ellen admits to not being able to identify what initially attracted her to ICT in education in the first place but tells her story as someone who was proactive and through reading and research came to attend conferences in the early 1990s where she 'rediscovered' concepts like *distributed cognition* and *networked learning* being discussed in a new and exciting way. The first significant event in this story that I refer to as an 'aha moment' was when Ellen tells of her meeting with an unqualified black teacher from an informal settlement community who showed great excitement at the prospects of using technology in his teaching. She quotes him as saying "Oh my life has changed so much. Previously I had to write by hand and now I just say rat-a-tat-tat..." symbolising the sound of his fingers on the keyboard. She also expresses his excitement, telling of how he broke into an impromptu song and dance about the computer. Ellen tells of how she saw a link between her work in human learning, distributed cognition, and tool use (based in sociocultural and Activity Theory) in this simple interaction with a single teacher. Just like Cinderella who was excited about the possibility of going to the grand ball at the palace, Ellen too was excited about her newly discovered link between her field of interest and the use of ICT in education. But just like Cinderella who was prevented from going to the ball, Ellen was subsequently hesitant to become actively involved in this field where she still felt like an outsider with no right to "gate-crash" into someone else's field of expertise. During the time that followed, Ellen continued to attend courses on the use of ICT in education within the HEI but admits that the focus of these courses was "not suitable for her needs." Just like Cinderella who was left to do all of the menial household chores, Ellen was left once again to her own devices. All of this was soon to change with the appointment of a younger male colleague within the Faculty of Education. Ellen could see how this colleague was sidelined and restricted by 'the system' in all of his attempts to introduce ICT to the Faculty of Education but she found that she could respect and support his enthusiasm and approach to teaching with ICT

because of the values and lifestyle he projected through his enthusiasm and care about student learning. It was this ICT innovator and pioneer in the field of ICT in education at the HEI who offered Ellen the 'glass slipper' when he invited her to take part in ICT research with him which she subsequently grasped with both hands. Ellen notes this as "probably one of the best invitations I have had in my life." She reveals in her narrative that she was accepted with warmth into this group of educational ICT staff members and sees this as a major turning point in her story. From this point on, the discourse of loneliness is replaced in Ellen's story with a discourse of *new-found scholarly engagement*. She tells of how her work was exposed to a fresh audience and how the publication of four to five new articles led to her being recognised at an international level within a field that was totally new to her.

Ellen situates herself in the story as the *explorer* searching for a new epistemological home. She claims to be "living on the web" along with many other people whom she has never met but knows very well through their web sites and email communication. She claims that "you don't have to see them because they live on their web sites and through their work." The world in which she was once lost has somehow shrunk, become less unfriendly, and has opened up new horizons for exploration. Ellen looks back on her progress with ICT in education and admits to 'getting there by chance.' This is something that was definitely not planned and something she ascribes to circumstance. In her own words her life is "not a life designed for e-learning." She admits to selfish reasons for becoming involved with using ICT in her teaching. She tells the story of wanting to do research and having a particular interest in knowledge and how humans learn using technology and how she saw an opportunity to research this by co-presenting an undergraduate course with another colleague within the Faculty.

Ellen positions the students in her narrative as co-investigators in her study of human learning with technology. She even mentions initially finding more value in student-talk than in the talk of fellow lecturers within the Faculty. Unlike other participants, Ellen does not focus on student perceptions and opinions on the use of ICT in teaching and learning, but rather focuses on the change in their 'minds' -

in the way students work, respond, and learn. Ellen then positions her fellow lecturers as people who are all in the same boat as herself with the same limitations and fears. She does not speak on behalf of them but chooses to say “I think most of us don’t know enough” thereby placing herself initially on the same level as them. She does, however, go on to say that some lecturers display a greater fear of change and that some may never change at all. Despite seeing everyone in the same situation as herself, Ellen then claims that not all teaching with ICT in the Faculty is good. She now distances herself from what she sees as ‘bad practice’ and chooses instead to associate herself with the good quality work being done by other individuals in the Faculty. At present it is her opinion that lecturers cannot be forced to implement ICT in their teaching but it is clear from her positioning in the story that she believes they must be guided in this direction. She goes so far as to reject the idea of only teaching using the face-to-face mode. In the future she proposes ‘teaching by example’ and suggests the implementation of show-and-tell events where lecturers can share their ICT success with others. Ellen also proposes the imperative for high quality work and research from the lecturers within the Faculty in the future with a specific focus on learning.

With regard to her identity, Ellen portrays herself in the early parts of the story as *‘the brave protagonist’* who had to deal with changes in her own academic focus, student discontent at having to come out of their comfort zones, and changing attitudes of fellow lecturers within the Faculty towards the success of others. She goes as far as to mention aggression and victimisation by other staff members and admits to ‘suffering’ at their hands. She identifies this conflict in the Faculty over ICT issues and even admits to being put off temporarily but then tells the story of how she overcame these issues through changing what did not work in the past and learning from past mistakes. Even though she positions herself as the central character in this story she admits that she is *not a leader in the field*. She identifies herself on more than one occasion as a *‘senior academic’* at the HEI but makes it clear that she is not out to force others into following her example. By setting certain examples and creating the opportunity for other lecturers to make up their own minds about using ICT in their teaching she positions herself in the story as one who is merely *‘fighting the good cause’* within a community in which

she is “once again able to think.” Ellen identifies herself at the present moment as a member of a vibrant, active, educational ICT community which is in fact a small part of one academic department within the Faculty of Education. It is within this ‘healthy community’ of lecturers with both an educational and ICT background that she claims to be able to think once again. The narrative points out that for Ellen the working context must have a heart: “and the heart of technology is as important for me as the mind.” It is within this “open minded community” that Ellen has found the link between the ‘human factor’ she enjoys and the technological and educational issues she works with. Despite the seemingly fearless front put up by Ellen in the early parts of her story, she is currently not at all hesitant to admit her personal limitations with regard to software and certain other technological issues. She honestly expresses a need for guidance and ‘very specific support’ in some cases and expresses insecurity if left to her own devices.

Concerning her own emerging epistemology and pedagogy, Ellen narrates the story of how she initially wanted to directly transfer content from an existing course into an online version of the same course - “I really believed that I could transfer my knowledge of pedagogy just like that...” - and how she came to discover that this was not an effective and practical way of teaching online. She ascribes the demise of her first attempts to good course design but poor use of the technology. In other words, the design was good for traditional lectures but not for use in the WebCT environment. At present, Ellen is comfortable with the idea of teaching online and admits to having theoretical knowledge of good practice in this field. She admits to changing her whole way of thinking about teaching with ICT and couples this with a change in her way of thinking about education in general. She is aware of her personal theories of knowledge and teaching and uses the terms epistemology and pedagogy freely in her story indicating that she is comfortable with these aspects of her career as an educator. She expresses knowledge of her own personal epistemology and admits to not having to change her epistemology when teaching online. Ellen stresses her advanced knowledge of teaching based on many years in education and tells of how she is still exploring her pedagogy of learning with ICT. The one thing that Ellen professes to have got out of this process from a pedagogical point of view is the way in which she can now

combine face-to-face teaching with online components of her courses. She clearly states that this is something that cannot be learned from books and that her online pedagogy is dependant on her practical experience in the field. She proposes 'learning by doing' and 'learning from experience'. She implies in her story that her current experience in the field of educational ICT has led to her changing her pedagogy which seems to impact on 'everything else.'

5.2.6 Hester's Story: The lonely path of the long distance runner

Hester's narrates the story of a *long distance athlete* and begins by stating that she is unable to speak on behalf of her colleagues and will therefore only give her opinion. This is very much like the individual athlete who only recognises her own strengths and weaknesses and has no control over what her team-mates do and think. She admits to being in the sport (teaching using ICT) longer than other athletes (fellow lecturers) and shows concern at the low numbers of athletes actively adopting the discipline (lack of ICT uptake). She finds the beginning of the race (the design and conceptualisation of a course for online implementation) to be the most difficult part and admits to needing assistance in order to get going. Hester tells of the early days of her long distance racing where she concentrated on the very basic task of running the race (simply providing content online) and how she has progressed from there to incorporate strategy (organisation of an online course) and a variety of techniques (communication and administrative tools) to make her a more effective athlete (getting to the point quicker using ICT). Now that she is a seasoned athlete Hester finds more time to concentrate on critical issues in her training sessions (focus on student issues). She also finds herself enjoying the activity more and claims to continue until late at night, sometimes losing track of time while engrossed in her work. One problem that she identifies is that like the athlete who may use up a lot of time on training, she often neglects other tasks at the HEI due to a 'self imposed' workload. Like a fit athlete who can call upon her reserve energy in order to climb a hill at any time in the race, Hester is also impressed with the Web being available on demand. Similar to an athlete whocannot get fit by observing others training, Hester advocates

'learning by doing' and getting actively involved. Throughout this discourse, Hester expresses an underlying fear of stagnation.

Hester initially situates herself in the story as one of the *early users* of the first course management system at the HEI where a lot of the learning took place through trial and error. She then positions herself as a *salesperson trying to promote a product* with the only difference being the fact that she is expressing her honest opinion which is based on her personal experiences with the tools of ICT, whereas some salespersons have ulterior motives for doing so. At least three times in the story Hester mentions the potential of ICT in the teaching and learning process. She finds the 'interaction' particularly suitable for her style of teaching and is able to easily list a number of benefits of ICT over face-to-face teaching based on personal experience and not book knowledge. Hester does indicate her identity as an *educational psychologist* late in the story but she ultimately portrays herself simply as a '*tool user*' with a love of the web.

As with the previous narratives, another important performative aspect of Hester's narrative is the way in which she positions other characters in relation to herself. It is apparent from her story that Hester wants to constantly be in touch with her students in order to establish meaningful relationships online. This is evident in a number of places in the story including the one where she tells of enjoying contact with students who were away on practical teaching sessions at a number of schools. The interaction and sense of belonging that she experienced led her to decide to build meaningful relationships with students in all of her future teaching using ICT which has resulted in her emphasis of relationships in education that is embodied in this narrative. Hester distances herself from other lecturers within the Faculty and claims that she cannot speak on their behalf. She does, however, identify their full workload in a possible attempt to include herself as one of the lecturers with this problem without actually complaining about it herself. She does attempt to justify why certain lecturers do not take to using ICT in their teaching and ascribes this to simple procrastination often caused by 'too much planning.' Like David, Ellen, and Walter she also includes international scholars as important

components of her current ICT community. She has already included the work of these international scholars within her current courses utilising the tool of ICT.

With regard to her identity, Hester portrays herself throughout the narrative as the concerned educator who is constantly worrying about better and more effective ways of interacting with the students. Strangely enough, she makes no direct identity claims to this effect throughout the entire story. The one identity claim that she does make concerns her role as a *pioneer* in the early days of the new course management system. She admits that she was 'one of those people' who started with it initially. Another term she uses to describe herself during this time is a *lone ranger*. Another claim that she makes regarding her identity is that she is *passionate* about the potential of teaching with ICT. She also admits to '*liking to climb into a thing*' in order to find out more about it. This supports her hands-on approach and her drive to become more knowledgeable about the tools of ICT in her teaching.

Concerning her own epistemology and pedagogy, Hester is comfortable with what she does and is obviously well read in the field of education. As an educational psychologist she shows her need for interaction and the formation of relationships in the teaching and learning process and also proposes infusing the theory of teaching into ICT. She does not, however, speak about changing her pedagogy when teaching online. It appears, as in Susan's narrative, that a well developed personal pedagogy is a major contributor to success online. Even though Hester and Susan do not say so directly, it may be easy to adapt your existing theory of teaching for online teaching whereas not having a well developed pedagogy does not afford one this luxury. Hester ascribes her success online to keeping up to date with developments in the field of ICT, using the tools available to her differently each time in order to see what works for her, and trying out different tools and activities all the time. At present she is also coming up with 'new' uses of the web that can be implemented in her teaching in the future.

5.2.7 Irma's Story: The professional woman keeping one step ahead

Irma tells the story of a *professional female executive* in a demanding world who makes conscious choices in her life and sets out to achieve certain goals in order to improve her professional status and boost her personal development as an educator, a woman and a leader in her field. She narrates the story of how she initially took over and started presenting an existing online course based on limited knowledge and skills obtained in a single course on how to use the course management system WebCT. Being a novice at teaching using ICT and as a new staff member at the HEI, Irma claims to have had limited time to learn new things and describes how she would have preferred to have been able to 'use the tool without technical knowledge.' Even now she questions whether technology is the responsibility of the lecturer or not. By taking on this new challenge, Irma found she could make her professional life easier by 'working smarter.' She explains how she saved time and effort by finding strategies that worked for her online. In a discourse of scholarly engagement she describes how she enhanced her teaching using ICT. The communication tool, for example, improved contact with her students and afforded her more quality time to improve her professional role as lecturer. In this time, Irma tells of how she repeated the basic WebCT course and started to implement more of the tools available to her in her teaching of the online module. At present she still finds herself 'designing in advance' and indicates her continued desire to improve her professional status by professing to 'wanting to keep one step ahead.'

Irma initially situates herself in the story as the '*new kid on the block*' with '*something to prove*' who was asked to take over an existing online course and was not willing to 'fall back into the comfort zone' of what she had been doing up to that point, but rather opted to attend an introductory course and try something new. She tells of being forced to learn very quickly about teaching online and how she found learning certain things to be very difficult especially as a result of the lack of time in her busy schedule. Irma comes across later in the narrative as the *motivated professional* who discovers that the very tool that initially took up so much of her time was the very tool that ultimately saved time and enriched her

teaching experience at the HEI. By seeing ICT merely as another 'tool' in her teaching arsenal Irma indicates advanced knowledge of teaching and cements her position in the story as *professional educator*.

Another important performative aspect of Irma's narrative is the way in which she positions other characters in relation to herself in her story. Irma positions herself as a *team player* who is *part of a team* of lecturers at the HEI and sees everyone as having the same responsibilities regarding their teaching practice. She recognises that some lecturers are not 'pulling their weight' as part of this team and demands that they make an effort in this regard. She claims in her narrative that teachers have a responsibility to keep up to date and to learn and finds it unacceptable that some lecturers are not doing so. Despite this, Irma tells of how she was initially supported by colleagues and continues to work and interact with other staff members within the Faculty who provide help and motivation regarding her online teaching. She also provides a possible reason for the lack of 'team spirit' within the Faculty when she portrays each lecturer as an expert in his field who may be unwilling to let others enter their domain. She claims that these boundaries need to be broken down and that coursework, course content, and activities need to be integrated across all levels in order to make it clear to students how various modules and courses relate to one another. Although some team members are not 'doing their bit', Irma is content to do what she sees to be 'the right thing' and continue to improve herself personally and professionally.

With regard to her identity, Irma portrays herself as an *educator* and the *expert in her field*. In her narrative, the identity claims she makes become evident through the way in which she labels herself as the *knowledge expert* and the way that she portrays her active role in the teaching process, whether face-to-face or online. Appearances are important to Irma and she makes it very clear that she does not want to appear 'dumb' in the eyes of her students. She wants to be seen as an expert who has knowledge to share with others, somebody who is intelligent, and somebody who is an authority in her field but sees technology as having the potential to 'take away her dignity'. She also describes her policy of being 'minimally proficient' with technological issues and how she keeps an 'idiots guide

to computer technology' in which she jots down solutions and procedures in order to be able to help herself in future. Keeping up appearances at work is not the only issue visible in this story and Irma also mentions how important it is to her to appear "smart as a mother" at home and to have a basic working knowledge of many issues. Irma has, therefore, adopted the dual role of *mother* and *independent professional woman* in her narrative but on closer scrutiny she seems to hide her personal identity and prefers to accentuate her professional academic identity as a lecturer. The independent nature of her activities is once again highlighted by her desire to get things done as far as possible on her own and the fact that she tries not to ask for assistance if possible.

Regarding her theories of knowledge and teaching Irma tells the story of being comfortable with her own epistemology and repeatedly brings up the issue of striving to be the subject and knowledge expert. She speaks of her fear that technology has the potential to expose shortcomings as a lecturer and how dedicated support staff with an educational (as opposed to a technical) background can play a major role in addressing this fear. By reducing or even removing her technological concerns, Irma is confident that she will then be able to concentrate better on remaining the 'expert in her field' in the future. With regard to teaching, Irma speaks of projecting the 'self' into the technology indicating that she is consciously trying to address the issue of 'distance' when teaching online as well as other issues like 'giving heart to the technology.' She narrates the story of being conscious of her personality and teaching style being projected through the online activities and of the student "being with her," "hearing her voice" and "interacting with her and not the technology." Irma claims that using ICT in teaching does not take much intelligence (IQ) but rather demands emotional intelligence (EQ) which simply involves a change in attitude towards teaching in this way. Irma sums up her view on teaching and pedagogy in the following quote: "If you are a teacher in your soul, and this is going beyond the heart, then you have a responsibility to do this, because if pedagogy is all about teaching and learning, it starts with the self, and that's it, to me, that's it you know, if I am truly interested in pedagogy and I want to teach others, you learn by example, so you

are the example and if you as the teacher are not prepared to learn, then why on earth are you teaching?”

5.2.8 Walter’s Story: Moses seeing the Promised Land for the first time

Walter’s narrative is situated within a *biblical setting*. Walter speaks of finding himself ‘out in the wilderness’ like the Israelites in the Christian Bible and expresses a feeling of being ‘left behind.’ He continues the story by telling of how he felt inadequate, alone and in need of support ‘all the time.’ He admits to struggling initially, especially with the technology itself, but expresses great excitement at the new challenges and possibilities that lay before him. He identifies the turning point in his story as the time when he was attending an international conference where he was exposed the potential of ICT in education ‘at work for the first time in an actual example.’ He professes at this point to have felt like *Moses seeing the Promised Land for the first time*. Being exposed to a real-life example of ICT being used for teaching in his field of expertise and being allowed to actively participate in a real online course, were the two motivating factors that taught Walter the most about the use of ICT in education. But just like Moses, Walter was not destined to reach the Promised Land. He narrates the tragic tale of how he was unable to reproduce and realise his vision back at the HEI and how ‘people looked at him as if he was mad.’ In his anger and disbelief he describes the online teaching at the HEI as ‘glorified email correspondence.’ This is where the first part of this narrative ends with Walter temporarily giving up the idea of teaching using ICT but unlike Moses who died in the wilderness Walter tells of his revival and of his slow return to using the tools of ICT. He remembers attending courses on teaching with technology and feeling patronised by the level and focus of the presentation. To this end he states (perhaps mistakenly) that all lecturers should have a basic knowledge about teaching in general to start with. Walter then speaks in the present tense and elaborates on the time constraints and full workload that lecturers currently have to contend with at the HEI but resigns himself to the fact that it is work that has to be done and that perhaps technology is the solution. Walter describes a second revelation in his narrative

when he discovers that he was not as 'inadequate' as he believed himself to be. This was when he was told that he did not have to have his course one hundred percent online and that a mere online presence was sufficient to begin with. From that point on, Walter tells of how he came to terms with ICT one step at a time and how he now has the confidence to continue unaided in this field.

Walter initially situates himself in the story as someone who has *missed the bus*, mistakenly believing that he had to put his courses entirely online. He admits to feeling pressurised into trying out teaching with ICT but with his second attempt he situates himself as *better informed, knowledgeable* in a variety of ICT related fields, and *adept at using the web for research*.

With regard to social interactions Walter used to 'stand in awe' of his fellow lecturers during the initial 'hype' over ICT in the teaching and learning process at the HEI. Since finding out that these colleagues only really do what works for them when implementing ICT in their courses and that they are not as advanced as he is, Walter is more comfortable with his status as lecturer and does not stand back at all when it comes to ICT issues. He does claim that it should now be easier for newcomer lecturers in the Faculty to adapt to teaching with ICT due to the better established infrastructure and the pool of expertise that has developed over the past years. Walter also sees himself on a par with international scholars and feels welcome within the international community in his field. He has also come to accept the ICT support division at the HEI and enjoys the proactive approach of certain support staff members. Walter claims that other lecturers will attend support sessions and also come to rely on the support division, as in his case, when they become ready. He still expresses high regard for support from Faculty members who are 'closer' to him and enjoys interaction with them on a more personal level as fellow academics who are more likely to understand his problems due to their educational and ICT backgrounds.

With regards to his identity, Walter portrays himself as someone who is excited by new things and new challenges. He identifies himself as an art critic, a teacher, a researcher, an author, and manager of a writing support centre at the HEI. He

mentions the role of the art critic in the narrative as this was the key to beginning a discussion with an international scholar at the conference where he originally became excited at the possibilities of teaching online. Throughout the story his concern for student engagement, interaction and effective learning highlight his role as a teacher. He shows concern at the new demands placed on him as lecturer by the students but finds it strange and amusing that students still come up with the 'same old tricks' and excuses packaged within a new format when online. At present, he is concerning himself with finding innovative ways to 'extract' personal and high quality work from students online. He uses the web for personal research on a regular basis and sees its role as 'indispensable.' A discourse of excitement prevails when Walter narrates the story of how he implements ICT within the Faculty Postgraduate Writing Support Centre at the HEI. At present it is relatively 'low-tech' but he already proposes a virtual writing centre and future implementation of more advanced technological features in his work. It is at this point of the narrative that Walter's true passion becomes clearly visible. He divulges his aim to focus on 'writing of all kinds,' including academic writing, through all of his future endeavours with ICT. This once again opens more doors for research in this field.

Concerning his own emerging epistemology and pedagogy Walter admits to adapting the way he teaches for implementation on the web and clearly sees the link between teaching and technology. In the past he expressed ICT as the cutting edge of education and saw great potential in pursuing ICT related teaching projects. At that time he only saw ICT as an aid to teaching but he now sees ICT in all aspects of his personal and professional life. He tells of how he has included ICT as part of his everyday thinking. By seeing the link between teaching and technology Walter proposes to blend ICT into his teaching style in the future (and not the opposite).

5.2.9 Rose's Story: Conflict on the playground

Rose is a senior lecturer at the HEI with many years of experience in traditional face-to-face teaching. Rose's narrative is a story of a '*child on the outside looking in.*' Like a child on a playground who is invited by the other children to take part in a game, Rose reveals the story of a lecturer who somewhat reluctantly agrees to take part in the 'game.' This reluctance to take part seems to be as a result of Rose's 'comfort zone' with what she was doing at the time and perhaps an indication of the fact that she was not quite *au fait* with the rules of the game to begin with. Rose had up to that point been teaching quite 'peacefully' and effectively in traditional face-to-face contact sessions at the HEI and admits to a preference for what she is comfortable with. As for the 'rules,' Rose had not yet even considered teaching using ICT and had no knowledge of the theory and practice of teaching with technology. Another possibility is that Rose was only invited to play because there was no one else available to complete the team on the playground. Rose narrates how she agreed to take part perhaps only to assist the players who would have struggled without her input in the game, these players being the Afrikaans speaking students who demanded to be taught in their mother tongue. Without her input these students would have been left to complete the course in English.

Rose initially situates herself in the story as a '*newcomer*' to the game and claims a lack of experience to be able to make any comments about the rules or intricacies of the game itself. The story reveals her inexperience with ICT in education but also points out her commitment to attempt to try out the tools of ICT in the teaching of the course. Rose never really speaks of being in control of her situation and even situates herself *subservient* to the senior colleague who was responsible for the English section of the class. Rose's need to be in control of the classroom situation is also evident in her narrative and she is distinctly unsettled and uncomfortable with the idea of allowing the students to take responsibility for their own learning. Rose ultimately sides with the discontented and disillusioned students and their families and acts as the '*voice of the masses*' playing a major role in presenting all of their demands and problems to anyone who will listen.

Rose eventually resigns from her position as referee and relegates herself to the same level as the students choosing to add her voice to what she sees as a large number of dissatisfied students and their families. She narrates this section of her story from the perspective of a mother who has personally experienced the ICT related problems of her own two children at the HEI (albeit in another Faculty). Using the experiences of her sons at the HEI Rose describes cases of poor teaching with technology and the negative implications this has for the lecturing staff at the institution. She claims too that lecturers' bad planning and presentation can easily lead to student apathy. Rose does not relate to the other lecturers within the Faculty at all and sees them as 'others' who are 'out there.' She criticises bad planning and design of online material and activities by 'others' and questions their reasons for attempting to teach with technology. She exposes certain lecturers who began their online teaching by simply placing content and classroom transparencies on the web but has no contribution to make regarding positive aspects of their initial attempts at teaching using ICT.

With regard to her identity, Rose positions herself on the sideline like a *spectator* who is observing her child play in a ball game. She is a vocal and critical spectator who comments about the proceedings through the eyes of a concerned parent. Even though she does not quite understand the rules she is quick to criticise the playing field, the participants, the referee (and his interpretation of the rules) and the ball itself. After a brief sojourn into being involved as a *referee* in the game herself where she was exposed to player uprisings and heated differences of opinion between herself and another referee, Rose tried her hand at reinventing her approach to the game and had a second attempt at improving the game (but this time on her own). This refers to her first and second attempts at teaching a module using both face-to-face and online components. A lot of match time was taken up in the second attempt by sessions where Rose allowed players to learn and practice the intricacies of the game before she allowed them to actually play for real (using contact sessions to introduce the class to ICT issues in a computer laboratory).

Rose demonstrates an example of a frozen and unyielding epistemology. She professes to be comfortable with what works for her at present and does not see herself changing her teaching in the near future. She claims that eye contact and face-to-face teaching should be the first priority at the HEI without considering the many benefits of using ICT at all. Her discourse is one of masked positivism where she presents mere summaries of what she believes to be facts and her beliefs and opinions are not interpretive at all. She claims, for example, to want access to good sources of knowledge and states that text books and printed journals are more reliable sources of such material than the Internet. With regard to her pedagogy Rose tells of a sense of losing control when using ICT in her teaching. She expresses feelings that she is no longer the expert when teaching with technology and the technology becomes the focus instead of the teaching activities. For this reason she sees ICT as cold and impersonal. Her final claim about teaching with the tools of ICT is that in her opinion, most lecturers are currently using ICT without sufficient knowledge of the pedagogy that is needed in order to do so effectively.

5.3 A FINAL WORD ON THESE NARRATIVES

This Chapter has presented a narrative analysis of nine interview transcripts. In each narrative I have emphasised the performative nature of the narrative seeing story-telling as a reciprocal event between the story-teller and the interviewer. The lecturer's preferred identity is revealed through the stories they tell. I have firstly looked in each case at *the kind of story that the narrator places him/herself in*; secondly, *how he/she locates the other characters in the story* in relation to him/herself; and, how the narrator relates to him/herself, i.e. *what are the identity claims that the narrator makes?* By viewing all of the above-motivated factors as part of a three-dimensional narrative inquiry space I have addressed notions of place (situation), notions of personal and social positioning (interaction), and the notion of continuity (temporality).

CHAPTER 6

DISCUSSION OF THE FINDINGS: TOWARDS EXPANDED LEARNING

6.1 INTRODUCTION TO THE CHAPTER

In the following section I will provide an overview of the main findings arising from the empirical study as described within this thesis. I will begin by listing the tensions that are critical to understanding what motivates specific actions within the activity system at the HEI and, more generally, in understanding the dynamic nature (evolution) of the system. These tensions represent system dualities that must be understood in order to understand the continued development of the ICT culture at the HEI. This will be followed by an elaboration on the significance of the narratives as presented in Chapter 5, culminating in the presentation of a conceptual tool that I propose for the development of a community of practice for lecturers teaching with ICT.

6.1.1 Commonalties in the tensions derived from the analysis of the interview transcripts

The codes derived from content analysis of the individual interviews were plotted onto the expanded Activity Theory triangle, as shown in Chapter 4, to show how Activity Theory can be utilised in an inquiry such as this to expose inherent tensions that exist between the various components of the system. It is these tensions or contradictions in activity systems that continuously drive these systems and lead to a number of changes in the subjects themselves. The analyses reported in Chapter 4 only served to reflect the major tensions that were derived from the analysis of each interview and implications for the activity system as a whole. In the following section I present a list of the tensions identified by the nine participants relating to each of the components of the activity system and an

indication of the commonalities identified by means of further comparative analysis of the tensions identified in Chapter 4.

6.1.1.1 *Tensions relating to the Mediating Artifacts*

A number of tensions in the activity system seem to be caused by issues relating directly to the tools of ICT. These include the tensions caused by

- the gap between personal capability and seeing the potential of ICT *in general* and *in education* (Walter, Hester, David). Some participants show low levels of technical proficiency and the desire to be able to cope (Irma) whereas others admits to frustration with technical issues but show no intention of wanting to cope at all (Rose). Ellen on the other hand is content to expose her limitations with technical issues and focus instead on human learning. Brian also mentions frustration with technical issues but ‘continues to work at it.’
- differing views of the mediating artifact itself
 - Hester, Susan and Irma view ICT as a ‘tool’ in their teaching
 - Walter on the other hand sees ICT as *an aid to teaching* but adds that it should also be seen as an *aid to learning*. Ellen also makes a clear distinction between technology and the learning and suggests that the focus should be on the learning.
- fear of computers taking over the teachers’ role (Walter, Rose)
 - Susan puts this fear to rest by stating that lecturers are the most important components of the ICT environment.
- uncertainty about the roles of computers and lecturers. Walter questions which mode (face-to-face or online?) certain activities should be presented in
- becoming engrossed in ICT work at the expense of other tasks (Hester, Brian)
- excitement at the potential of ICT in teaching and learning (Hester, Brian)
- having to change attitude toward ICT (Irma)
- having to change methods of teaching (Brian)

- having being 'obliged' to learn about ICT quickly (Irma, Brian)
- seeing ICT as a field on its own (Mark, Rose)
- questioning the usefulness of ICT in education (Mark, Rose)
- basing decisions and opinions on observations of other lecturers using ICT (Mark, Susan, Rose)
- feeling threatened by ICT (Susan, Rose)
- fear of losing control (Rose)

One conclusion that can be drawn from these tensions is that not 'knowing' the tool impacts on everything else. For the lecturers in this inquiry, knowledge of the computer and related technologies is imperative for their success in teaching online.

6.1.1.2 *Tensions relating to the Rules*

A number of tensions relating to issues of power were exposed in the analysis. The most obvious tensions are those caused by:

- lack of knowledge of a definite policy regarding the use of ICT in education / miscommunication over ICT matters (Walter, Irma)
 - lack of uniformity with regard to student skills and what is expected of them (Rose)
 - Mark questions existing policy and suggests the implementation of more stringent policy documents
- policymakers not being educators (Ellen)
- the issue of funding and the policy regarding funding (Susan)
- issues of power at the HEI
 - preventing lecturers from making technological and financial demands of the institution (Walter). Hester chooses to disregard power issues and get on with her teaching except when it affects her directly (taking away her Internet access at home).
 - between individual Faculty members regarding academic disciplines and their borders (Irma)

- between lecturers and the ICT support staff over the roles that each party should play (Irma)
- where management will not give credit for good work where credit is due (Ellen)
- Faculty pressure and being 'forced' to work with other lecturers (Rose) David rejects this notion outright and suggests teaching by example.
- institutional pressure to put courses online (Walter, Brian)
- wanting to find a way to use ICT to address academic demands like 'publish or perish' and research in general (Walter, Ellen)
- positioning personal academic fields within the ICT environment (Walter)
- technological and financial demands being placed on students (Hester, Ellen)

Power and hierarchical structure in the HEI thus feature through the participants view of ICT.

6.1.1.3 *Tensions relating to the Division of Labour*

The diversity within the Faculty is clearly visible in the analysis with the only commonality being that participants all expressed the feeling of being alone, with tensions relating to the division of labour increasing this feeling. These tensions are mainly caused by:

- working with lecturers with differing approaches and agendas (Rose)
- lecturers not having the same level of knowledge about education (Walter, Mark, David, Ellen)
- varying abilities with regard to technical ability and teaching with ICT (Walter, Brian, David, Ellen)
- the need for help from someone in the field of education with certain technical skills (Walter, Hester, David, Ellen)
- the need to know what other lecturers are doing with ICT (Hester)

- feelings of isolation due to lack of supportive and ‘like-minded’ colleagues (Hester)
- unclear demarcation of roles (Irma)
- boundaries between lecturers who see themselves as experts in their discipline (Irma)
- need to improve professional and personal status (Irma)
- the changing role of the lecturer at the HEI and new demands being made (Brian)
- ICT support division not being Faculty-based (Hester, Walter, Mark, Ellen)
- incorrect approach by ICT support staff (Mark)

From these data it is evident that little provision for fair development of division of labour is experienced by the lecturers.

6.1.1.4 *Tensions relating to the Object*

The object within this activity system was *engagement with the tools of ICT*. Tensions related to this engagement are caused by:

- duplicating online and face-to-face components of a course / perpetuating familiar teaching styles (Rose, David)
- bad practice of putting content online (Hester, Ellen, Mark)
- lack of experience in teaching online (Susan, Walter, Irma, Mark, Ellen, David)
- good course design but bad use of the technology (Ellen)
- applying technology instead of concentrating on teaching (Mark, David)
- not matching teaching approach with teaching events online (Ellen)
- limited engagement with only selected ICT tools (Rose, Mark)
- having to reconceptualise and adapt teaching for implementation on the web (Walter, Hester, Ellen, Brian, David)
- the need to project the ‘self’ into the online teaching / giving heart to the technology (Irma)

- lack of confidence to engage effectively with ICT in teaching (Walter)
- lack of exposure to good examples of teaching using ICT (Walter)
- inability to implement teaching activities due to limitations at the HEI (Walter)
- the drive to want to do things but not having the technical ability to do so (Walter, Irma, Brian)
- the need to remain up to date with ICT issues in education (Hester, David)
- the desire to use ICT without having to concentrate on the technology (Irma)
- lack of online pedagogy (Ellen)
- lack of theoretical knowledge of teaching using ICT (David)
- remaining in the comfort zone of what works (Susan)
- inability to contextualise theory and adapt it to the unique South African situation (David)
- only wanting to use ICT in a supportive role in courses (Susan)
- the need for a mentor (David)

These tensions are serious obstacles in the establishment of a healthy online environment and will have to be addressed in future training and development of an ICT community of practice.

6.1.1.5 *Tensions relating to the Community*

Participants referred to a number of other people within their ICT community including students, tutors, colleagues within the HEI, and international scholars to name but a few. Tensions related to this community include:

- having a very small and limited personal ICT community (Brian, Mark, Irma)
- not being part of or belonging to any specific community at all (Rose)
- changing roles within the ICT community (David)
- the need to form healthy relationships online (Hester, Brian, David)

- the need for greater student involvement in their learning (Hester, Mark, Brian)
- increasing student demands (Walter, Rose, Mark)
- the need to learn from students (Ellen, Mark, David)
- feelings of inadequacy caused by comparing online teaching with that of other lecturers (Walter)
- poorly developed theory of knowledge and teaching by some lecturers (Walter, Mark, Susan)
- rapid growth of the field of educational ICT and the inability of lecturers to keep up (David)
- lecturers believing they are experts in their field but still having a lot to learn about teaching with ICT (Susan)
- uncertainty of the role of ICT support staff (Walter, Hester, Irma)
- the need to be recognised both locally and internationally by peers (Walter, Hester, Ellen, David)
- having to retrain tutors (Hester)
- busy work schedules of lecturers (Hester)
- limited knowledge of what other lecturers are doing with ICT (Hester, Ellen)
- procrastination by lecturers (Hester, Brian)
- lecturers not wanting to change (Mark, David)
- need for immediate and specialized support within the Faculty from colleagues (Irma)
- lack of engagement by lecturers with the tools of ICT (Ellen)
- lack of experience in teaching online (Ellen, Susan)
- varying degrees of motivation by lecturers to teach with ICT (Ellen)
- the need to learn from experience / learning by doing (Ellen, David)
- not looking beyond the boundaries of the HEI for potential members of the ICT community (Mark)
- ICT widening the gap between good and weak students (Mark, Brian)

In an overview of tensions related to the 'community' (in the activity system) it is evident that the lecturers see the engagement as a broader educational and sociocultural activity that goes far beyond a single course.

6.1.2 Significance of the narratives presented in Chapter 5

In Chapter 5 I argued that the discourse about information and communication technology within the social context of the Higher Education Institution is often overlooked by lecturers and researchers as a means of understanding the effects of the 'recent' emergence of ICT in education. They try to engage without becoming part of the discourse community. To this end, a narrative analysis of nine interviews was carried out in order to elaborate on this issue. The nine narratives in Chapter 5 reveal the narrative discourse that was identified in the narrative interviews using Activity Theory as an analytical lens and a starting point for each analysis. In the narrative discourse of this inquiry, I traced how lecturers represented themselves as users of ICT.

I have observed from the analysis of the narratives that many lecturers still see ICT as *access to information* and not as a *process of distributed engagement and learning* (compare Henning 2003). This slowly started to change for some lecturers as they engaged with the tools of ICT and as they entered the activity system. By experiencing distributed cognition and developing social constructivist ideas of teaching, I would argue that lecturers can change their view of knowledge and learning. In doing so they begin to exemplify what Nardi and O'Day (1999) refer to as "keystone species" in the establishment of learning and information ecologies in their workplace. These are like key components of a natural ecosystem and are essential to the survival and existence of the ecosystem. Furthermore, I suggest that those lecturers who experience some real epistemological change during the process of engaging with the tools of ICT have also developed, if only emergently, some form of learning and information ecology in their work environment (See David, Ellen, Brian, Irma, Hester, and Walter). The formation of this 'ecology' seems to be closely related to interactions with other lecturers and other key members of the 'ecosystem.' With no formal 'curriculum'

for lecturers to follow in this process each one has entered the system with a life history (and thus a 'lived experience') that has ultimately played a role in how they engaged with ICT and due to the uniqueness of each life history, each of their stories differs. They have all 'landed' in the system in a different way and their *varying levels of engagement with the tools of ICT can be related very much to how they position themselves in their stories.*

By analysing how lecturers position themselves and the other key role players in their ICT community, the issue of portrayal in ethnographic research (that even though ethnographers attempt to interpret cultures accurately they may struggle with the issue of portrayal due to the fact that they only see portions of a cultural reality) has been addressed in this inquiry using narrative as an organising methodological frame. The 'reality' of the ICT culture within the Faculty of Education has been enriched by the contribution of multiple narratives as represented in the inquiry. I propose that the use of narrative inquiry in this study has eliminated the problem of determining *how much of whose reality is portrayed, how it is portrayed, and how accurately?* Each narrative has been used as a source of data and has been interpreted as a story.

From the narratives it is evident that most participants in this study have re-storied their past, while trying to make sense of their engagement with e-learning. New meanings have evolved due to the influence of subsequent life events. By making sense of events and experiences in their past, and how they relate to their current selves, they have changed the meanings of these experiences. This can be seen by the *changing identity claims* that some of the participants make in their stories. Stories have thus evolved due to the shifting importance of certain events, the discovery of previously unknown connections, and the repositioning of characters in the stories. By identifying 'turning points' in the stories, or moments in which the narrator signifies a radical shift in the expected course of the story, I have attempted to illustrate how *identities of lecturers have shifted over time.* I refer to turning points in the interview as "aha" moments. These moments seem to fundamentally change the meaning of past experiences and consequently the individual's identity in the story. Take for example Walter's 'aha moment' where

he saw 'all dimensions of ICT in teaching at work for the first time in one good example' and describes himself as "feeling like Moses seeing the promised land for the first time," or Ellen's meeting with an unqualified teacher from an informal settlement who taught her to see how 'life-changing' ICT can be. In these, and many other examples, the past is given new significance as participants move out of the old relationships and construct new identities in the story. The identity claims that participants make, and how these claims change in some cases over time in their narratives, have been summarised in paragraph 6.1.2.4.

Using narratives has had a number of benefits in this inquiry. Each narrative contains a large proportion of factual data which can be verified in order to create a larger picture based on these dates and places of biographical events. The participants' stories collected from the same milieu serve as documentary sources for investigating the world of the lecturers teaching with ICT at the institution over the same period of time. By comparing narratives the reader can uncover recurrent patterns concerning collective phenomena at the HEI and share collective experiences of lecturers during that time. By working from the performative perspective, however, I have approached the narratives differently. It has not been my agenda to verify factual data but rather to understand the changing meanings of events for the lecturers involved, and to explore how these, in turn, are located in history and culture – thus in storied form. In other words, narrative has been used as 'meaning-making units of discourse.' By viewing all of the above-motivated factors as part of the three-dimensional narrative inquiry space as proposed by Clandinin and Connelly (see paragraph 2.3.3), I have derived certain interpretations and written research texts in the form of narrative segments that address both personal and social issues while also addressing temporal issues by not only looking at the event itself, but also to its past, present and future. These elements are more clearly visible in the summaries that follow:

6.1.2.1 *The types of stories in which participants place themselves*

David's story is the tale of the *crusader* who left the relative safety of his 'home' and set out on a 'pilgrimage' to spread the word about ICT in education and fight

for its recognition and existence in a hostile and challenging environment at a Higher Education Institution. David's Crusade continues as the story develops and tells of a lone crusader who braved initial resistance to his cause, overcame many setbacks and feelings of initial exclusion, and eventually commanded a large following at the HEI. Just as the early Crusaders would have tried to convert all in their paths, David carried out this role until the use of course management systems (CMS's) had been established campus wide. David admits to completing this task successfully and then returning to his role as a lecturer and academic just as many returning heroes from the crusades might have done.

Susan narrates a story of the *chameleon* slowly adapting herself to match the colours and rich textures of her surroundings. She does not do this in order to hide away in her world but rather to blend in and feel comfortable amongst the other components of her ecosystem and to be able to see things from their perspective. Just like the chameleon, Susan does not have to be concerned about what is happening in the background, and can rather channel her energy into manipulating the environment in her favour. Like the chameleon who has picked up experience and is aware of her surroundings, Susan admits to the relevance of having an educational background when exposed to the field of ICT.

Brian narrates a story of a *man* who has been doing the same routine job for a number of years who suddenly finds a *new lease on life*. The lecturing fraternity within the Faculty can be seen as his extended family and the HEI as his home. Not unlike some men who experience what is sometimes referred to as a 'mid life crisis' and go off and do strange things seemingly out of context like growing their hair and purchasing a Harley-Davidson motorcycle, Brian admits that designing and developing a course for multi-modal delivery is the most exciting thing he has done in the past ten years.

Mark narrates a story that is situated mostly in the past. This is a story of the *world traveller* who already had a good knowledge of many countries in the world when he set off in order to explore a new and uncharted country. In order to cope in this new world, Mark tells of how he was obliged to try out new things that he

had not experienced before on his travels. He then tells of other explorers (new lecturers) joining him in this new world also attempting to make sense of the situation. He was no longer alone in his travels and was subsequently able to observe the various approaches of fellow tourists and understand how and why they interacted in this unfamiliar situation.

Ellen's story is a rags-to-riches story. Just like Cinderella who was excited about the possibility of going to the grand ball at the palace, Ellen too was excited about her newly discovered link between her field of interest and the use of ICT in education. But just like Cinderella who was prevented from going to the ball, Ellen was subsequently hesitant to become actively involved in this field where she still felt like an outsider with no right to "gate-crash" into someone else's field of expertise. Just like Cinderella who was left to do all the menial household chores, Ellen was once again left to her own devices. When a colleague in the field of ICT in Education at the HEI offered Ellen the 'glass slipper' by inviting her to take part in ICT research with him, she subsequently grasped the opportunity with both hands.

Hester narrates the story of a *long distance athlete*. She admits to being in the sport longer than other athletes and shows concern at the low numbers of athletes actively adopting the discipline. She finds the beginning of the race to be the most difficult part and admits to needing assistance in order to get going. Hester tells of the early days of her long distance racing where she concentrated on the very basic task of running the race and how she has progressed from there to incorporate strategy and a variety of techniques to make her a more effective athlete. Now that she is a seasoned athlete, Hester finds more time to concentrate on critical issues in her training sessions. She also finds herself enjoying the activity more and claims to continue until late at night, sometimes losing track of time while engrossed in her work.

Irma tells the story of a *professional female executive* in a demanding world who makes conscious choices in her life and sets out to achieve certain goals in order to improve her professional status and boost her personal development as an

educator, a woman and a leader in her field. By taking on this new challenge, Irma found she could make her professional life easier by ‘working smarter.’

Walter’s narrative is situated within a *biblical setting*. Walter speaks of finding himself ‘out in the wilderness’ like the Israelites in the Christian Bible and expresses a feeling of being ‘left behind.’ He identifies the turning point in his story when he was attending an international conference where he was exposed to ICT in Education at work for the first time in an actual example. He professes at this point to have felt like *Moses seeing the Promised Land for the first time*. But just like Moses, Walter was not destined to reach the Promised Land. He narrates the tragic tale of how he was unable to reproduce and realise his vision back at the HEI and how ‘people looked at him as if he was mad.’ This is where the first part of this narrative ends with Walter temporarily giving up the idea of teaching using ICT but unlike Moses who died in the wilderness, Walter tells of his revival and of his slow return to using the tools of ICT.

Rose’s narrative is a story of a ‘*child on the outside looking in*.’ Like a child on a playground who is invited by the other children to take part in a game, Rose reveals the story of a lecturer who somewhat reluctantly agrees to take part in the ‘game.’ This reluctance to take part seems to be as a result of Rose’s ‘comfort zone’ with what she was doing at the time and perhaps an indication of the fact that she was not quite *au fait* with the rules of the game to begin with.

The stories mentioned above differ and the imagery that I have used to represent the participants are aligned with how they represented themselves.

6.1.2.2 How participants position themselves

David initially situates himself in the story as a *young, inexperienced but enthusiastic academic* who began his career as a “professors assistant.” David now clearly positions himself once again as *an established academic* with no further agenda to ‘sell’ the idea of teaching with technology but stresses his continued desire to remain a *leader in his field*.

Susan immediately situates herself in the story first and foremost as a *researcher*. She quickly refers to her role as departmental head and then as a *manager*.

Brian initially situates himself in the story as '*one of the crowd*'. Brian now sees himself once again as the '*subject specialist*'. Brian then positions himself as part of a team or '*team player*' with a very specific role.

Mark situates himself throughout the story as a *tourist* who has recently visited a place in the world. He now positions himself as an '*armchair explorer*' not unlike the television viewer on the 'Travel Channel' who now explores from the comfort of his home.

Ellen situates herself throughout the story as '*the explorer*' searching for a new epistemological home. She claims to be "living on the web" along with many other people who she has never met but has come to know very well through their web sites and email communication.

Hester initially situates herself in the story as one of the *early users* of the first course management system at the HEI. She then positions herself as a *salesperson trying to promote a product*. Hester does indicate her identity as an *educational psychologist* late in the story but she ultimately portrays herself simply as a '*tool user*' with a love of the web.

Irma initially situates herself in the story as the '*new kid on the block*' with '*something to prove*.' Irma comes across later in the narrative as the *motivated professional* and later affirms her position in the story as *professional educator*.

Walter initially situates himself in the story as someone who has *missed the bus*, mistakenly believing that he had to put his courses entirely online. He admits to feeling pressurised into attempting teaching using ICT but on his second attempt he situates himself as *better informed, knowledgeable* in a variety of ICT related fields, and *adept at using the web for research*.

Rose initially situates herself in the story as a *'newcomer'* to the game and claims a lack of experience to be able to make any comments about the rules or intricacies of the game itself. Rose never really speaks of being in control of her situation and even situates herself *subservient* to the senior colleague who was responsible for the English section of the class. Rose ultimately sides with the discontented and disillusioned students and their families and acts as the *'voice of the masses'*.

The way in which the lecturers situate themselves in these stories has had an impact on how they have developed and how they now narrate their experiences.

6.1.2.3 How participants position others

How lecturers position themselves in the narratives has also had an impact on how they position others. In this section I will elaborate on the people who are included in each lecturer's community and how they are portrayed in the individual stories.

David positions the students in his world as an *'indicator of success'* with the use of ICT in his teaching. David relates to the lecturers within the Faculty as *'brothers in arms'* who have joined him in this quest. David clearly places lecturers in the same category as himself but differentiates them by categorising them.

Susan sees the potential for ICT in the establishment of learning communities for lecturers through the web in which she can play an active role as a *community member*. Susan then separates herself from other lecturers by implying that some staff members do not have a well developed theory of teaching and maintains that all lecturers still have a lot to learn. She claims that lecturers all think they are *'experts in the field of education'* when in fact some are in serious need of education in the field of teaching with technology. On the other hand, Susan clearly illustrates in her narrative that she has the best interests of the lecturers at heart and positions her staff (people) and not only the technology as an important part of her ICT environment.

Brian positions the students in his narrative as *lazy children* who have not been expected to do much up to now and are only recently being forced to take charge of their own learning. Early in the narrative, Brian positions the lecturers in the Faculty as *equals* but soon *separates himself from them*, seeing them subsequently as people in need of guidance and support.

When relating to fellow lecturer's at the HEI, Mark speaks about them in the third person. He creates the impression that he is talking about 'them' but many of the things he says are directive indicators of his own situation and his own shortcomings. He seems to find safety in associating himself with the crowd. Mark positions the students in his story as *demanding clients* who are being exposed to a totally different and new product. Although Mark sees the students as demanding clients, he also points out that they are also largely *uninformed* about the use of ICT for teaching and learning and that many of their claims and demands may be unfounded.

Ellen positions the students in her narrative as co-investigators in her study of human learning with technology. She even mentions initially finding more value in student-talk than in the talk of fellow lecturers within the Faculty. Ellen then positions her fellow lecturers as people who are all in the same boat as herself with the same limitations and fears. She does not speak on behalf of them but chooses to say "I think most of us don't know enough" thereby placing herself initially on the same level as them. She distances herself from what she sees as 'bad practice' and chooses instead to associate herself with good quality work being done by other Faculty members.

It is apparent from her story that Hester wants to constantly be in touch with her students in order to establish meaningful relationship online. Hester distances herself from other lecturers within the Faculty and claims that she cannot speak on their behalf. Like David, Ellen and Walter, she also includes international scholars as important components of her current ICT community.

Irma positions herself as a *team player* who is *part of a team* of lecturers at the HEI and sees everyone as having the same responsibilities regarding their teaching practice. She recognises that some lecturers are not 'pulling their weight' as part of this team and demands that they make an effort in this regard.

Walter used to stand *in awe of his fellow lecturers* but is now more comfortable with his status as lecturer and does not stand back at all when it comes to ICT issues. Walter also sees himself *on a par with international scholars* and feels welcome within the international community in his field. He has come to accept the ICT support division at the HEI and enjoys the proactive approach of certain support staff members but expresses high regard for support from Faculty members who are 'closer' to him as fellow academics who are more likely to understand his problems due to their educational and ICT backgrounds.

Rose does not relate to the other lecturers within the Faculty at all and sees them as 'others' who are 'out there.' She criticises bad planning and design of online material and activities by 'others' and questions their reasons for attempting to teach with technology.

In the community of the activity system of ICT, the place and space awarded to others has had some influence on the development of the 'subjects.'

6.1.2.4 Identity claims made by participants

Great strides in the development of identity may be seen as visible signs of the way in which lecturers come to terms with and conceptualise the system at the HEI. The changing identity claims that lecturers make over time should, therefore, reflect their engagement with the tools of ICT.

With regard to his identity, David portrays himself in the early parts of the story as the '*self taught pragmatic pedagogist*' who liked to be actively involved in discovering the best ways to teach using technology. At present he is comfortable with his 'changed role' in the Faculty as an *established academic*. He still

expresses the desire to remain up to date with educational ICT issues and be an '*expert in the field.*'

With regard to her identity, Susan portrays herself in the narrative firstly as a *head of department*, an *expert in the field of human learning*, a *researcher*, a *teacher*, and finally as a *manager*.

With regard to his identity, Brian portrays himself first and foremost as an *educator*. A second identity claim is that he is a *creative person* who has always come up with unique and new ways to teach certain concepts. He also identifies himself through his discourse as a *proud achiever*. He expresses amazement at what he has done up to this point and 'speaks as one who has mastered something substantial.'

The first identity claim that Mark makes is that he is an '*explorer.*' He is now content to sit back and allow others to do the ground-breaking work. No further identity claims are made in this narrative.

With regard to her identity, Ellen portrays herself in the early parts of the story as '*the brave protagonist*' dealing with change. Although she positions herself as the central character in this story she admits that she is *not a leader in the field*. She identifies herself on more than one occasion as a '*senior academic*' at the HEI. She later positions herself in the story as one who is merely '*fighting the good cause*' within a community in which she is "once again able to think." Ellen identifies herself at the present moment as a *member of a vibrant, active, educational ICT community* which is, in fact, a small part of one academic department within the Faculty of Education.

With regard to her identity, Hester portrays herself throughout the narrative as the concerned educator who is constantly worrying about better and more effective ways of interacting with the students. Strangely enough, she makes no direct identity claims to this effect throughout the entire story. The one identity claim that

she does make concerns her role as a *pioneer* in the early days of the new course management system. She admits that she “was one of those people who started with it initially.” Another term she uses to describe herself during this time is a ‘*lone ranger*.’ Another claim that she makes regarding her identity is that she is *passionate* about the potential of teaching with ICT. She also admits to ‘*liking to climb into a thing*’ in order to find out more about it. This supports her hands-on approach and her drive to become more knowledgeable about the tools of ICT in her teaching.

With regard to her identity, Irma portrays herself as an *educator* and the *expert in her field*. She labels herself as the *knowledge expert*. She wants to be seen as an expert who has knowledge to share with others and somebody who is *intelligent*. Irma also mentions how important it is to her to appear “*smart as a mother*” at home and to have a basic working knowledge of many issues. Irma has, therefore, adopted the dual role of *mother* and *independent professional woman* in her narrative.

With regard to his identity, Walter portrays himself as an *art critic*, a *teacher*, a *researcher*, an *author*, and *manager of a writing laboratory at the HEI*.

With regard to her identity, Rose positions herself as a *spectator*. She is a vocal and critical spectator who comments about the proceedings through the eyes of a *mother*. Even though she does not quite understand the rules she is quick to criticise the playing field, the participants, the referee (and his interpretation of the rules) and the ball itself.

As seen above, *identity is based in the social network to which one belongs*. Many of the lecturers still think in terms of themselves or their own immediate situation and identity is then based in the individual. In this case tasks prevail over relationships and *no sense of community* exists. In other cases, *identity is based in the social network* that is emerging within the Faculty of Education where lecturers identify themselves as *part of a community*.

6.1.2.5 Views of personal epistemologies and pedagogies over time

The following section deals with the issue of lecturers' changing theories of knowledge and teaching as depicted in their narratives. The way in which these lecturers make these changes (or not) is evident in the issues they describe in their stories in the quest for the development of a functional online pedagogy.

David admits to a limited theory of teaching with ICT in his early career but credits his general knowledge of teaching to his early years of experience as a school teacher. Initially David began to identify problems with face-to-face teaching and recognised colleagues perpetuating the type of teaching he had become accustomed to at school level. At this early stage he already identified differences between online and face-to-face modes of teaching and his changing focus from technology to methodology. He soon progressed to integrate the two modes of teaching where he discovered the importance of sound theoretical and subject knowledge. From that moment on David substantiated all of his activities in his online teaching with theory. He currently shows awareness of the latest available literature and most up to date research in the field of educational ICT and repeatedly stresses the importance of theoretical knowledge in his narrative. A further development of this theme is that David highlights the contextualisation of theory and the adaptation of theory to the unique local situation. In the future David aims to continue trying to find the best methodologies to improve his teaching and his hands-on approach should lead to a lot of experimentation with various methodologies. He now sees learning activities as the main focus of his online teaching and he professes to choose pedagogy for every activity based on teaching goals.

Concerning her own emerging epistemology Susan reveals her field of expertise to be human learning. She also professes not to have changed her teaching methods much over the past few years and with regard to her pedagogy is still using the 'same old principles' for teaching online. This seems to work for her because of her notion that 'teaching must be seen as dialogue' and that it is a 'process of collective inquiry in which students and the teacher explore together.'

She ascribes this to the fact that the tools within the course management system support this 'co-inquiry.' To this end she claims to be 'doing what she has always done' on the web indicating that a well developed personal epistemology and pedagogy is perhaps the secret to success when teaching online.

Regarding his personal theories of knowledge and teaching, Brian goes right back to his history as a physical science teacher at school level and elaborates on how his teaching has not changed much over the length of his career. He claims to have been always been creative. He ascribes his general knowledge of teaching to his early career as a teacher and admits to having tried various ways of teaching in the past. He even admits to boredom with the way in which he taught certain concepts in the past and adds that he had not, until recently, even considered teaching using the tools of ICT. At present, Brian tells of being able to find new ways to teach and of how he has even improved his own subject knowledge by reflecting on the design of learning activities. He addresses the similarities between face-to-face teaching and teaching with technology indicating a practical working knowledge of the basic theory behind each mode but also expresses the desire to 'do more advanced things in the future.' Brian already envisages using more interaction and more complex animations in his future teaching and speaks of complex online tutorials, the simulation of real-life activities, and online assessment in future courses. He does not speak of the implications for the design and development of such activities and at present and does not elaborate on his role in this process. He seems to realise his limitations but has enough enthusiasm and theoretical knowledge of teaching online to dream of these activities becoming a reality.

With regard to his own theories of knowledge and of teaching, it is important to note that Mark sees ICT as a field on its own and even describes it as 'someone else's field.' Mark claims to have been initially uninformed about the use of ICT in teaching and admits that his initial focus was on 'applying the technology. Based on a brief period where he was actively involved in online modules, he is now able to expose and discuss a number of topical issues related to ICT and teaching in general. Even so, Mark expresses uncertainty as to ICT's potential usefulness at

present based on his observation of other lecturers. As an educator he is aware that this is an example of 'petrified pedagogies' or pedagogies that have not changed to meet the demands of a new medium. Mark's awareness of the need to adapt his pedagogy for teaching online is evident from his discourse but it is also clear that he has not yet personally attempted to do so. He does, however, indicate that he will seriously consider using ICT in his teaching in the future if it can offer something that normal face-to-face teaching at the HEI cannot. He speaks of this as 'value added.'

Ellen narrates the story of how she initially wanted to directly transfer content from an existing course into an online version of the same course and how she came to discover that this was not an effective and practical way of teaching online. She ascribes the demise of her first attempts to good course design but poor use of the technology. At present, Ellen is comfortable with the idea of teaching online and admits to having theoretical knowledge of good practice in this field. She admits to changing her whole way of thinking about teaching with ICT and couples this with a change in her way of thinking about education in general. She is aware of her personal theories of knowledge and teaching and uses the terms epistemology and pedagogy freely in her story indicating that she is comfortable with these aspects in her career as an educator. She expresses knowledge of her own personal epistemology and admits to not having to change her epistemology when teaching online. Ellen stresses her advanced knowledge of teaching based on many years in education and tells of how she is still exploring her pedagogy of learning with ICT. The one thing that Ellen professes to have got out of this process from a pedagogical point of view is the way in which she can now combine face-to-face teaching with online components of her courses. She clearly states that this is something that cannot be learned from books and that her online pedagogy is dependant on her practical experience in the field. She implies in her story that her current experience in the field of educational ICT has led to her changing her pedagogy which seems to impact on 'everything else.'

Hester is comfortable with what she does and is obviously well read in the field of education. As an educational psychologist she shows her need for interaction and

the formation of relationships online and also proposes infusing the theory of teaching into ICT. She does not, however, speak about changing her pedagogy when teaching online. It appears, as in Susan's narrative, that a well developed personal pedagogy is a major contributor to success online. Even though Hester and Susan do not say so directly, it may be easy to adapt your existing theory of teaching for online teaching whereas not having a well developed pedagogy does not afford one this luxury. Hester ascribes her success online to keeping up to date with developments in the field of ICT, using the tools available to her differently each time in order to see what works for her, and trying out different tools and activities all the time. She continually comes up with 'new' uses of the web that can be implemented in her teaching in the future.

Regarding her theories of knowledge and teaching, Irma tells the story of being comfortable with her own epistemology and repeatedly brings up the issue of striving to be the subject and knowledge expert. By reducing or even removing her technological concerns, Irma is confident that she will then be able to concentrate on remaining the 'expert in her field' in the future. With regard to teaching, Irma speaks of projecting the 'self' into the technology indicating that she is consciously trying to address the issue of 'distance' when teaching online as well as other issues like 'giving heart to the technology.' She narrates the story of being conscious of her personality and teaching style being projected through the online activities and of the student "being with her," "hearing her voice" and "interacting with her and not the technology." Irma claims that using ICT in teaching does not take much intelligence (IQ) but rather demands emotional intelligence (EQ) which simply involves a change in attitude towards teaching in this way.

Concerning his own emerging epistemology and pedagogy, Walter admits to adapting the way he teaches for implementation on the web and clearly sees the link between teaching and technology. In the past he expressed ICT as the cutting edge of education and saw great potential in pursuing ICT-related teaching projects. At that time he only saw ICT as an aid to teaching but he now sees ICT in all aspects of his personal and professional life. He tells of how he has included ICT as part of his everyday thinking. By seeing the link between teaching and

technology, Walter proposes to blend ICT into his teaching style in the future (and not the opposite).

Rose demonstrates an example of a frozen and unyielding epistemology. She professes to be comfortable with what works for her at present and does not see herself changing her teaching in the near future. She claims that eye contact and face-to-face teaching should be the first priority at the HEI without considering the many benefits of using ICT at all. With regard to her pedagogy, Rose tells of a sense of losing control when using ICT in her teaching. She expresses feelings that she is no longer the expert when teaching with technology and the technology becomes the focus instead of the teaching activities. For this reason she sees ICT as cold and impersonal. Her final claim about teaching with the tools of ICT is that in her opinion, most lecturers are currently using ICT without sufficient knowledge of the pedagogy that is needed in order to do so effectively.

The above summaries seem to indicate that learning about *teaching using ICT* will be more effective if lecturers are initially exposed to all aspects of the learning task. If lecturers are presented with ICT matters as a meaningful whole within a healthy community of practice, I argue that this will help lecturers to accept the value of the knowledge before they shift their focus to the appropriation and the ability to use the knowledge. This is in line with Vygotsky's concept of developmental teaching where knowledge is only seen as useful when it "moves ahead of development (Vygotsky, 1987:212).

6.2 VIEWING NARRATIVES IN TERMS OF THE THEORY OF "EXPANDED LEARNING"

The potential of Activity Theory to be used as an analytical tool in this inquiry has already been described in detail in Chapter 3. It has also been confirmed that lecturers' engagement with the tools of ICT is not necessarily a neat transfer of information but a complex and often messy structure of social and cultural practices within the HEI that must be explored as such. The activity systems that

form (and are formed by) the lecturers in this inquiry have proven to be dynamic (as indicated by the multiple tensions that drive the system) and have presented them with opportunities for learning that can be seen as their own individual zones of proximal development. These lecturers are continuously changing approaches and learning as they expand their involvement with the ICT community and the tools that the community uses.

The concepts of internalisation and externalisation have also been described in paragraph 3.5 and no further elaboration will be made here. It is only important to remember that whatever is internalised by lecturers may, at a later stage, be externalised in future social activity, leading to further change and perhaps learning. This is what Engeström (1987) termed “learning by expanding” as depicted in Figure 3.7.

This expansive cycle has been adequately described in Chapter 3 as a developmental process that involves both internalisation and externalisation. By addressing the internal contradictions (tensions) of the activity system as identified in paragraph 6.1.1, lecturers can firstly internalise this information. The almost exclusive emphasis on internalisation at the beginning of the cycle, is typical of the situation where lecturers at the HEI may, for example, begin with formal training or experiment individually with the tools of ICT. They may then gradually begin to show evidence of externalisation and periods where internalisation becomes dominant once again. In Figure 7.1 on the following page, I have indicated that this cycle is only the first in a number of cycles and I have also mapped the names of the participants onto the Figure to indicate where I perceive them to be (according to their narratives).

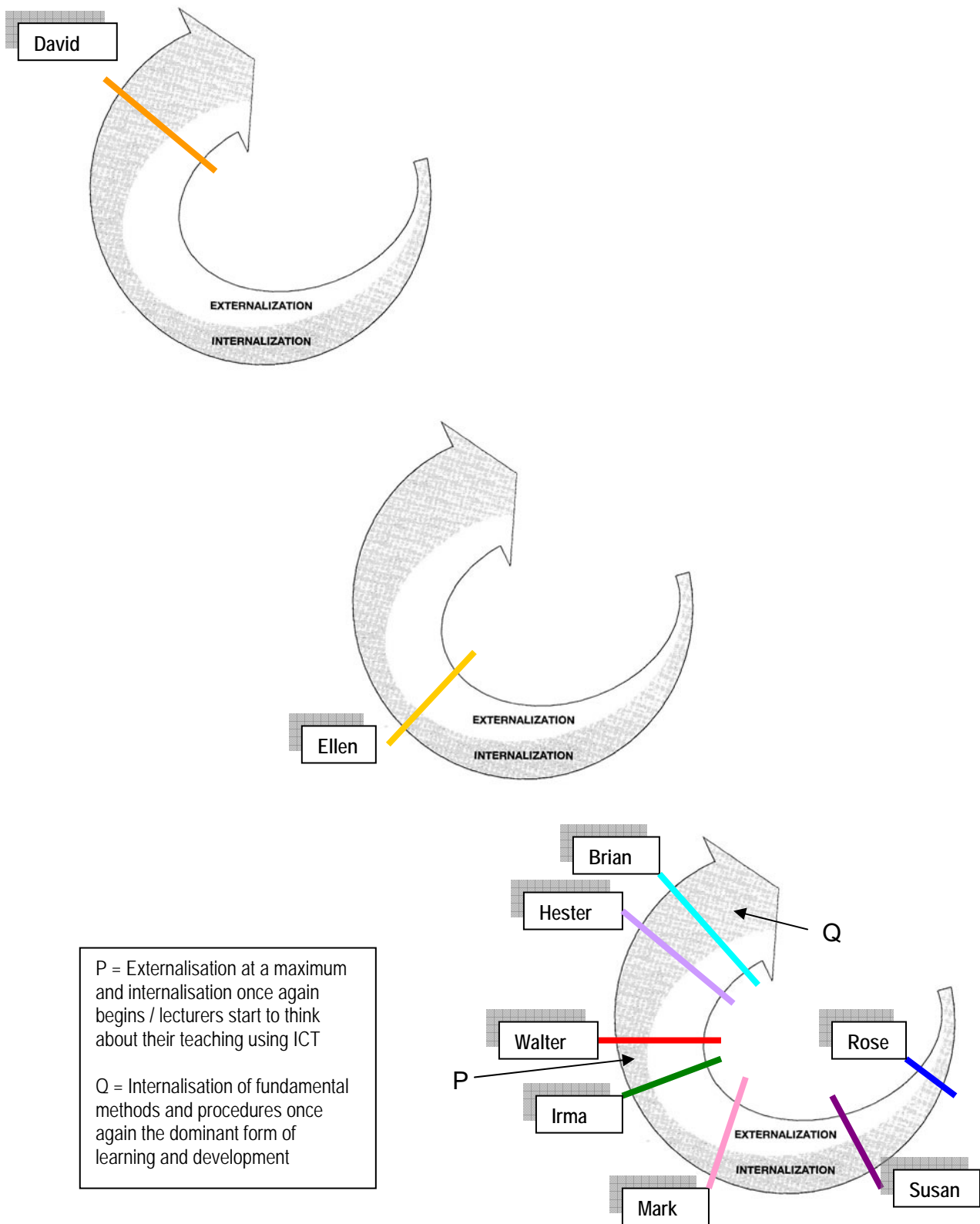


Figure 6.1: Extended expansive cycles of learning at the HEI

The first signs of externalisation are evident when certain lecturers (like Mark) exhibit discrete individual innovations in the field. As the internal contradictions of the activity system become more demanding, internalisation increases and is typified by the lecturers going through the process of critical self reflection. It is here (as indicated by point P on Figure 7.1) where I believe lecturers actively begin to think about their teaching and, I argue, their emerging theories of knowledge in general. A number of lecturers have not yet reached this point and the following elaboration may help to explain their unyielding theories of knowledge and teaching.

Based on her narrative, Rose is still in the early stages of internalisation and has not progressed much in the cycle of learning. She has not externalised much at all. *The story of conflict on the playground* tells of a lecturer who was reluctant to take part in the 'game.' It is a story of a 'newcomer' taken out of her 'comfort zone' who does not relate to the other lecturers within the Faculty at all and sees them as 'others' who are 'out there.' No sense of community is evident at all in her story and she finds herself alone. Rose positions herself as a vocal and critical *spectator*. Her *frozen and unyielding epistemology* is linked to her fear of losing control when using ICT in her teaching and her fear of no longer being the expert when teaching with technology.

Susan has advanced slightly further on the cycle of expanded learning up to the point where externalisation has become slightly more prominent. *The story of the chameleon who learned to blend in* tells of how she easily adapted to teaching online simply as a result of already having an educational background. Like Rose, she also positions herself as 'alone.' She has not changed her teaching methods much over the past few years and is still using the 'same old principles' for teaching online. She sees teaching as a 'process of collective inquiry in which students and the teacher explore together.' Although she does not mention the literature on online pedagogy her story indicates that a personal epistemology and pedagogy based on some theoretical

knowledge of teaching in general and some practical experience is perhaps enough as a novice online lecturer.

Mark's *story of the traveller who lost the urge to explore* tells of how he was obliged to try out new things that he had not done before. The only identity claim that Mark makes is that he is an 'explorer.' When joined by other lecturers teaching online he was no longer alone. Having the backing of this small group may be one of the reasons for his increased externalisation and more advanced stage on the expansive cycle. Mark is also the first lecturer to include students in his slightly larger ICT community. Based on limited personal experience with teaching using ICT he is now able to discuss a number of topical issues related to ICT and teaching in general. He is aware of his 'petrified pedagogy' that has not changed to meet the demands of a new medium but has done nothing about the situation.

Irma's story of the professional *female executive* trying to keep one step ahead, tells of her need to improve her professional status and boost her personal development as an educator, a woman and a leader in her field. As the 'new kid on the block' with 'something to prove,' Irma expresses the need to be seen as the *professional female educator and expert in her field*. The notion of a team or *community* of lecturers surfaces in the story and may, I argue, be the reason for her increased externalisation and greater advancement on the expansive learning cycle. Irma reflects an understanding of general educational theory, and some theory of online teaching and learning, when she speaks of projecting the 'self' into the technology indicating that she is consciously trying to address the issue of 'giving heart to the technology.' Her knowledge of theoretical issues is also complimented by her changed attitude towards teaching in this way. Irma is at the stage where internalisation once again becomes the dominant form of learning.

The next phase of the expansive learning cycle is characterised by an increase in internalisation once again and less emphasis on externalisation as the lecturer engages once again with new issues and tools. Three lecturers can be placed along this part of the cycle. Their stories indicate the following similarities:

The man who found a new lease on life, Moses seeing the Promised Land for the first time and the lonely path of the long distance runner are all stories that tell of excitement, enjoyment and new possibilities. There is mention of being part of a team reflecting the role of the ICT community in their advanced status on the expansive learning cycle. Two of the stories (Walter and Hester) mention the role of international scholars as part of the ICT community and all of them mention the importance of relationships with students and members of the community. The concept of a community of practice is becoming noticeably more pronounced. Brian, Walter and Hester currently see themselves as more advanced than a lot of other lecturers at the HEI due to their practical experience with ICT. Brian, Walter and Hester all identify themselves first and foremost as *educators*. Besides Walter who also sees himself in multiple roles including that of *researcher*, Brian sees himself as an achiever and a creative person, whereas Hester identifies herself as a pioneer and a hands-on person. They all, therefore, make positive identity claims which are verified by looking at their advanced position on the expansive learning cycle. All three indicate a well developed theory of teaching and reflect easily on educational issues. Brian compares face-to-face and online teaching, Hester speaks of adapting her existing pedagogy, and Walter elaborates on the link between technology and teaching. They are all currently planning new teaching online, keeping up to date, and including technology into their general way of thinking. This is indicative of an advanced level of theoretical knowledge.

As this new model stabilizes itself, internalisation of its fundamental methods and procedures once again becomes the dominant form of learning and development (Point Q) as the lecturer engages once again with the tools of ICT at the HEI.

After this a *new cycle*, which is my own adaptation of Engeström's expansive learning cycle, begins. One lecturer, Ellen, has advanced to this second expansive cycle despite her self-professed technical 'deficiencies.' Her story reveals why.

Like the other lecturers, Ellen's also tells of being alone. The story, *finding the foot to fit the glass slipper*, is a rags to riches story of a lecturer who rose from humble beginnings to a level of advanced scholarship in a new field. Ellen situates herself throughout the story as *'the explorer'* searching for a new epistemological home. She tells of an extended ICT community, some of whom she has never met but knows very well through their web sites and email communication. These international scholars, student and lecturers make up this greater ICT community but the one thing that distinguishes her from the previous lecturers in this section is the sense of belonging as a *member of a small but active, educational ICT community* within the Faculty. Ellen portrays herself in the early parts of the story as *'the brave protagonist'* dealing with change. She admits that she is *not a leader in the field*. She is merely *'fighting the good cause'* within a community in which she is "once again able to think." Ellen is comfortable with the idea of teaching online and admits to having theoretical knowledge of good practice in this field. She admits to changing her whole way of thinking about teaching with ICT and couples this with a change in her way of thinking about education in general. She is aware of her personal theories of knowledge and teaching and uses the terms epistemology and pedagogy freely in her story indicating that she is comfortable with these aspects of her career as an educator. She expresses knowledge of her own personal epistemology and admits to not having to change her epistemology when teaching online. Ellen stresses her advanced knowledge of teaching based on many years in education and tells of how she is still exploring her pedagogy of learning with ICT. She clearly states that some things cannot be learned from books and that her online pedagogy is dependent on her practical

experience in the field. She implies in her story that her current experience in the field of educational ICT has led to her changing her pedagogy which seems to impact on 'everything else.' Ellen is proof of the fact that low technical ability does not have to be seen as a hindrance to success online.

Only one lecturer has been placed on the third expansive learning cycle in Figure 7.1. David is the only one to have advanced through a number of these expansive cycles and, once again, a short discussion of his story reveals why.

The story of the conquering Crusader who lived to tell the tale is a story, once again of someone who was alone, who braved initial resistance to his cause, overcame many setbacks and feelings of initial exclusion, and eventually commanded a large following at the HEI. David tells about successfully entrenching ICT at the HEI and then returning to his role as a lecturer and academic. David initially situates himself as a *young, inexperienced but enthusiastic academic* and later as an *established academic* with no further agenda to 'sell' ICT. He does stress his continued desire to remain a *leader in his field*. David, like Ellen, is part of a large and extended ICT community which includes students, lecturers, tutors, and international scholars in the field and is also part of a smaller healthy community of educational ICT lecturers within the Faculty. David is actively involved in discovering and developing more effective ways of teaching using technology. As an *established academic* he still expresses the desire to remain up to date with educational ICT issues and be an '*expert in the field*.' Early on in his career he identified differences between online and face-to-face modes of teaching and his changing focus from technology to methodology. He has always substantiated his activities in online teaching with theory. He currently shows awareness of the latest available literature and most up to date research in the field of educational ICT and repeatedly stresses the importance of theoretical knowledge. David highlights the contextualisation of theory and the adaptation of theory to the unique local situation. David aims to

continue trying to find the best methodologies to improve his teaching and he professes to choose pedagogy for every online activity based on teaching goals.

This example of the expansive learning cycle will now be discussed as part of the theoretical contribution of this inquiry and then used to suggest implications for the preparation of an educational ICT community of practice.

6.3 THEORETICAL CONTRIBUTION OF THE INQUIRY

The first major contribution of this inquiry is the conceptualisation of a *theoretical construct and framework which can be used to organise knowledge about teachers in higher education and their engagement with the tools of information and communication technology*. This is a multi-dimensional framework incorporating aspects of sociocultural theory, Activity Theory and the theory of tool mediation. The conceptual tool must be seen simply as a *thinking tool* that can assist in thinking about the professionalisation of practice of lecturers engaging with the tools of ICT in their teaching.

This theoretical construct has been applied as an organising framework in this inquiry and can be utilised in the future as a framework for research purposes in the field of educational ICT. This construct may be used in the ‘training’ and support of lecturers at Higher Education Institutions by assisting in their early engagement with a number of issues. Early engagement of lecturers with the ‘tools’ of the technology can be tackled using this construct, and secondly, both pedagogical and epistemological issues can be addressed based on a sound theoretical underpinning.

6.4 METHODOLOGICAL CONTRIBUTION OF THE INQUIRY

The methodological contribution of this inquiry can be found in the way in which I have synthesized the different methodological design types as described in Chapter 2 of this inquiry.

6.4.1 Discussion of findings from an ethnomethodological perspective

The structures that lecturers create in the ICT community within the HEI are ordered and there are 'everyday' reasons behind this order – *a way of making meaning of everyday practice*. What lecturers say and do during interaction and in the construction of meaning seems to be shaped by the conventions of how they interact. Observing the interaction in this inquiry, however, was not enough and gaining a thorough knowledge of the context within which the interaction is taking place, was essential for me as novice ethnomethodologist in this inquiry. In the process, I have exposed certain unspoken rules that govern the use of ICT within the HEI and in most cases interaction seems to have developed according to these rules. I recall the example of management at the HEI expecting academics at all levels to begin using the tools of e-learning in their teaching. A "minimum presence" is expected of teaching staff and in order to fall into a pattern of accepted behaviour, and to try to structure their lives within the ICT community, lecturers have adopted various strategies to make meaning of their situation. Some have adopted ICT in their teaching without question (David, Brian, Ellen, Hester, Irma) and some have been silenced by the majority and now find meaning in consensus without challenge (Mark). Deviations from this are evident in those lecturers who reject ICT on the one hand (Rose) and also in those on the other hand who "go the extra mile" and flourish within this new culture (Ellen, David and Walter). It is these deviations that have led to an emerging social order that is produced, and made recognisable in and through the practical actions of lecturers within the HEI. The purpose of the ethnomethodological work within the broader design of this inquiry has thus been to demonstrate how tacitly ruled behaviour influences the emerging epistemologies and pedagogies of lecturers at the HEI. I argue further that these behaviours sustain other actions and have definite consequences for lecturers within the ICT community.

6.4.2 Discussion of findings from an ethnographic perspective

The cultural 'system' that I have attempted to capture using ethnographic methods in this inquiry is the 'way of life' within the group being studied. Capturing this way

of life has been done by getting to know the participants and their practices during the course of their everyday lives over the extended period of this study. I have spent sufficient time in the setting where lecturers carry out their day-to-day tasks in order to capture rituals, activities, language and signs that the lecturers use to represent themselves. This inquiry has already evolved into a 'critical ethnography', by repeatedly challenging the culture of education at the HEI, by identifying the power relations within the group (see the sections relating to the 'rules'), and through inquiry into the ICT culture of the participants with emancipatory goals. A number of power relations have been identified in both the analysis in Chapter 4 and the narratives in Chapter 5.

As ethnographer, and by combining ethnographic methods and perspectives from critical theory, I have exposed social inequalities through the various methods of data analysis in this inquiry that can be addressed in order to promote positive social change at the HEI. The focus is, therefore, on the refinement of social theory and not only on the description of social life. Through describing and analysing social 'realities', I have exposed to scrutiny lecturers' otherwise hidden agendas and assumptions in Chapters 4 and 5 that need to be questioned. Within the context of this inquiry, the 'tools' of ICT with a specific focus on the computer as a tool, can be seen as the 'cultural commodities' being researched. From the critical ethnographic viewpoint, it can be claimed that many lecturers within the ICT culture at the HEI seem to be *trapped by their own personal theories of knowledge and teaching more than by the technology itself* resulting in differing levels of success with teaching online. This 'inequality' can be seen as *a structural feature of the prevalent society within the Faculty*. The critical ethnographic stance in this inquiry, therefore, serves to address these inequalities through the process of developing a 'full description of the society' (group of lecturers) by providing details of their everyday interaction with ICT. Rather than speaking *for* the participants in this study, I have adopted the additional task as the critical ethnographer to speak to an audience *on behalf of* the participants, giving more authority to their storied lives. It is not my purpose in this section to describe the educational ICT culture at the HEI, but rather to highlight the changing epistemological and pedagogical pathways of selected participants, that are evident in the narratives.

6.4.3 Discussion of findings from a narrative perspective

The significance of the narratives presented in Chapter 5 of this inquiry has already been discussed in paragraph 6.1.2 and needs no further elaboration here except to say that narrative methods, and the narratives themselves, were the nexus of the inquiry.

6.5 IMPLICATIONS FOR THE PREPARATION OF A COMMUNITY OF PRACTICE

This inquiry has completed a 'full circle' and the findings point once again to the formation of an ICT communities of practice as proposed in Chapter 1. The theoretical construct and framework developed in this inquiry, for example, prepares the ground for further workshops and support in 'community of practice mode' (Wenger, 1998). This construct may be used to introduce lecturers to a variety of essential theoretical knowledge that is the foundation for the development of an adaptable and strong online pedagogy. Some of these theories, as highlighted in this thesis, include Activity Theory, sociocultural theory, and the theory of tool mediation. My argument here is that *if new lecturers engaging with the tools of ICT know the theory of tool use, and apply it to teaching and learning using computers, as educational theorists they will show more interest in the technology and the potential for teaching and learning.* In Ellen's story, for example, there is a meeting of computers and educational theory for the sole purpose of improving knowledge of both students and herself. The interest in the technology and theoretical knowledge of the tools has proven to be enough of a combination to stimulate the growth of Ellen's online pedagogy. Ellen's interest in theoretical issues surrounding educational ICT and human learning seem to dominate the need to know the tool so well. It seems that if lecturers understand tool mediational theory, for example, they can implement it without much knowledge of the tool itself. Irma on the other hand, engages with the tools of ICT for the sole purpose of being able to claim to have 'done it.' Her motive is

different, and developing an online pedagogy will most probably depend on her specific context (including social and historical factors), matching the approach with desired outcomes, understanding the demands and expectations of the students, and on her level of understanding of the various theories mentioned above. I argue that these are all issues that can be adequately addressed within a healthy and very specific community of practice.

The narratives indicate that it is the wrong approach to just go out and 'train' lecturers. No generic training program will suffice. The support needed is both specific and highly individual and needs to be presented within the Faculty structure. In order to start this community of practice, lecturers need to get to know one another and the 'initiator' of the community must also know the members of the community intimately. It is important to know *who they are* (or what their stories are). It is also essential to realise that these people need to be 'prepared' in order to become active members of this ICT community. Within this community of practice, it will be necessary to present the relevant theories as presented in this thesis as specific devices that can be used to prepare lecturers for ICT. All of this must also take place within a multidimensional framework that includes lecturers' stories (such as those presented in this inquiry) before initiating the community of practice.

6.6 OTHER SIGNIFICANT FINDINGS

Lecturers are also faced with a double barrier when confronted with teaching using the tools of ICT. Not only must they learn to trust a 'foreign' mediator and tool with its own powerful discourse but they must at the same time *learn to 'e-teach.'* Online components of courses will most possibly be approached by students as yet more 'content to memorise' without a profound epistemological shift and it is the task of the lecturer to make this shift, firstly in himself, and secondly to facilitate this change in the student. In terms of Activity Theory this inquiry has shown that the lecturers have mostly been concerned with *operations* and some *actions*, but have not all engaged with the *activity*. In the discussion of the tensions between

lecturers and their ICT community in Chapter 4 and through the narratives in Chapter 5, it can be seen that in many cases lecturers rate students and student opinions highly. In order to ensure changes in the student, however, the focus must first fall on the lecturer.

A further contribution of this study is the methodological link to a new research project at the HEI on how educators, who are graduates of, or are involved in Computer-Based Education (CBE) degree programmes, establish learning and information ecologies in schools and their communities. This research project will shed light on the changing epistemologies and pedagogy of in-service teachers and will help to answer the question: How do educators, who are graduates of, or are involved in Honours and Master's programmes in Computer-Based Education (CBE), transfer the knowledge and skills learned in these programmes towards establishing and maintaining learning and information ecologies in schools and their communities during and in the first two years after having completed their degree studies? I see the link between these two studies as the epistemological shifts that take place in the adult learners in the programmes as they learn about the technology and 'about' epistemological shifts themselves. At this stage I surmise that the type of shift that may take place in these teachers will be similar to that of the lecturers in this inquiry. The methodological contribution of this inquiry can also shed light on many methodological issues within this research project.

6.7 SUMMARY OF THE CHAPTER

This Chapter reports on the findings presented in Chapters 4 and 5 and begins with a listing of the commonalities in the tensions derived from the analysis of the interview transcripts in Chapter 4. By placing all of these tensions together under separate section headings and by indicating where participants exposed the same issues, the further analysis of the data is made possible.

The second section of the Chapter reports firstly on the significance of the narratives presented in Chapter 5 and then presents a breakdown of the narratives under the five main headings that were used in Chapter 5 to present the performative nature of each story. A discussion of the significance of these narratives follows. The main contribution of this inquiry is then explored under three main subdivisions including theoretical and methodological contributions and the implications for the creation of an ICT community of practice at the HEI.

Other significant findings are followed by this summary of the Chapter. Chapter 7 will now provide an overview of the inquiry.

CHAPTER 7

OVERVIEW, LIMITATIONS, AND ISSUES FOR FURTHER RESEARCH

7.1 OVERVIEW OF THE INQUIRY

Chapter 1 provided a general orientation to the inquiry beginning with a description of the background to the research topic. This included some elaboration on the appearance and subsequent explosive growth of ICT and related technologies that have had a notable effect on Higher Education and learning in particular. The rush to implement Information and Communication Technology (ICT) in Higher Education Institutions (HEI's), where technology has come to be seen as a potentially valuable tool for educational reform in Higher Education, is described. The introduction then focuses on how lecturers engaging with ICT at Higher Education Institutions are confronted on a daily basis with emerging technologies and are indirectly 'invited' to change the way they approach the development and teaching of their courses. It is also noted in the introduction that at a time when education systems are undergoing profound change, ICT research often focuses on the technology more than on the shifting epistemologies and pedagogies of lecturers. It is also pointed out that ICT research is often not coordinated within a suitable design logic and is frequently of poor quality (paragraph 1.1), hence this inquiry.

The rest of paragraph 1.1 was presented largely in the form of a personal narrative that told the 'story' of the conceptualisation of this inquiry. This is in line with the use of narrative as utilised later in this thesis and offers the reader the opportunity to look beyond the story and to see the concerns, tensions and other issues that underlie and guide this inquiry. The 'story' begins with how I firstly came to focus on *professional development of the e-learning facilitator at a Higher Education Institution* and how the focus later changed to the *development of a self-reflecting community of online practitioners within the Higher Education Institution*. The

story progresses to where I began to feel that the online component of the community of practice did not develop sufficiently to warrant the research focus on it, and I then describe how the overwhelming interest and motivation of a number of colleagues prompted me to continue my engagement with them as practitioner researcher. It was only then, through closer contact with selected individuals, that I began to focus on *lecturers' changing theories of knowledge and teaching* (the main focus of this inquiry).

A short section on *problematizing the topic* follows in paragraph 1.2 leading to the identification of the unit of analysis soon after the participants began to question their 'ways of doing things' and how their teaching was changing as a direct result of the implementation of 'new' strategies for using ICT in their teaching and research. The unit of analysis in this inquiry was, therefore, stated as: *lecturers' changing theories of knowledge and teaching in first encounters with ICT*. From this the main research question was derived: ***how does initial engagement with ICT affect change in epistemology and pedagogy in the practice of higher education practitioners, and how can narrative analysis reflect this?***

An elaboration on the *purpose of the inquiry* is then followed by the *aims and objectives* of the inquiry. In order to achieve the aim of determining how initial engagement with ICT reflects possible change in the epistemology and pedagogy of higher education practitioners, the objectives are discussed in detail in paragraph 1.4. These objectives form the 'backbone' of later chapters in this thesis with many topics incorporated into the comprehensive theoretical framework found in Chapter 3. Likewise, the proposed blending of methodologies into a hybrid design spawned by the interpretive turn in social science research, underpinned by various philosophies and multiple methods of data collection and analysis forms the gist of the chapter on methodology (Chapter 2).

A short section on the possible contribution of this inquiry is followed by the research methodological perspective where philosophical, theoretical and methodological assumptions of the design of this inquiry were provided (see paragraph 1.6). A description of the research design and framework of the inquiry follows and reflects the above-mentioned assumptions. This section provides a preliminary description of the many topics discussed in detail in Chapter 2 and

includes elaborations on participants in the inquiry, *conceptual and theoretical frameworks* of the inquiry, the *research genre* and nature of the inquiry, *methods of data collection*, and *data analysis*. The research programme is then presented in table form and followed by a summary of the Chapter.

Chapter 2 is used in this thesis to describe the research methodology and genre of design. It begins with a short description of what research design is all about and is followed by an elaboration on how action research was used in the formulation of the design genre implemented in this inquiry (paragraph 2.2). This section is written almost in the style of a personal narrative and describes the theory of action research interspersed with elements of my personal story illuminating what I was trying to achieve through the inquiry at that time. This includes a section on the development of an early design hybrid (paragraph 2.2.2) and how I eventually located a new design genre for a newly adjusted and reconceptualised inquiry (paragraph 2.2.3). Paragraph 2.3 elaborates in detail on the blending of methodologies proposed in this inquiry. It is described how in a rapidly changing and complex social world, pragmatic blending of methodologies and methods are not unusual and how social change and the resulting diversification of life worlds are increasingly confronting social researchers with new social contexts and perspectives. In the hybrid design one can recognise components of a critical ethnography, ethnomethodological inquiry and narrative inquiry. It is explained how data derived from these sources in this inquiry will then be scrutinised further using Activity Theory as an analytical tool. In other words, Activity Theory would not only form part of the theoretical framework for this inquiry, but would also be utilised in the process of data analysis. In particular, Activity Theory is described as an analytic tool with the potential to accentuate fine details of activity, action and operation towards achieving a goal, which in this inquiry can be likened to individual lecturers' changing theories of knowledge and teaching through engagement with the tools of ICT. Each of the components of the design hybrid is then discussed in some detail and this is followed by a thorough description of the data collection techniques that are possible in each. Methods of data analysis are then discussed in paragraph 2.4. The Chapter draws to a close with a detailed account of how the value of such an inquiry can be determined and how each

component of the design hybrid can add to the 'value' of the inquiry. The final section of this Chapter deals with issues of ethics in inquiries of this nature.

Chapter 3 provides a detailed overview of the theories underpinning this inquiry. In the introduction to the Chapter I argue that the assumptions that underlie the notion of 'emerging pedagogies and epistemologies of lecturers at the HEI' need to be problematised, especially from the viewpoint of the divergence of ideas around emergent pedagogies of ICT in education. Pedagogical concepts, with a social, cognitive slant, most of which have in some way been spawned by the cultural historical theory of Vygotsky and other scholars in this tradition are exposed as useful scaffolds for theorizing about ICT in education. It is suggested in the introduction to the Chapter that lecturers can only make meaning of their initial engagement with ICT and the subsequent changes in their ways of teaching, and thinking about teaching in general, when they see the broader picture of how engagement with ICT does not only take place on a physical or material level, but is also strongly related to their geographical, historical and cultural context.

In Chapter 3 I argue further that during the process of initial engagement with ICT, lecturers are continually challenged to learn by 'making new knowledge' as they start working with the tools of ICT because they cannot superimpose existing epistemologies onto a tool that is in essence so different to traditional printed text and face-to-face communication. I argue that if lecturers hold on to static epistemologies that they will find ICT-based education disconcerting.

The individual identity of the lecturer is described in Chapter 3 as the combination of *activity in context*. From the perspective of Activity Theory, the HEI can be seen as an activity system that is connected to other systems, each within which there are tools and contexts. The ICT community at the HEI is, therefore, forged by the activities of lecturers and manifested through their labour, utilising the tools of ICT. Lecturers' theories of knowledge and teaching are, therefore, forged by the 'multiple contexts' of the individuals within the ICT culture and must be seen as dynamic and constantly changing. For this reason, a brief exploration of socio-cultural theory and Activity Theory follows in order to establish theoretical markers for a clearer understanding of emerging (or stagnant) epistemologies and

pedagogies. Sociocultural theory (paragraph 3.2), the origins of Activity Theory (paragraph 3.3) and advances in Activity Theory (paragraph 3.4) are explored in detail in Chapter 3 culminating in the description of Engeström's complex model of an emerging activity system which is adapted to represent the activity system relevant to this inquiry. Throughout this section I have interwoven elements of my personal research journey and have provided actual examples from the research to illuminate various concepts from the literature that may otherwise remain abstract and difficult to understand.

This Chapter ends with a discussion of the Zone of Proximal Development as proposed by Vygotsky. The notion that this concept can easily be transposed onto the situation at the HEI where adult lecturers are learning about the use of technology in their teaching practice is explored. Continuing with this train of thought, the ZPD is explored as the gap between what a lecturer can learn by himself and what he can potentially learn with the help of others. This is followed by a section on Engeström's concept of 'learning by expanding' and what he called the *expansive cycle*. At the level of collective activity systems, the expansive cycle may be seen as the equivalent of Vygotsky's (1978) Zone of Proximal Development which he discussed at the level of individual learning. The expansive cycle is used later in this thesis in Chapter 6 as a framework for the discussion of the narratives.

Chapter 4 briefly elaborates on the processes and procedures that were carried out during the analysis of the nine interview transcripts in order to expose the tensions or contradictions that drive the activity system as a whole. All of the textual data from transcripts of interviews are described as being analysed by means of interpretive content analysis in mostly inductive fashion, not unlike the basics of grounded theory analysis. Coding of data in Chapter 4 was done using sentences as segments and each code was written with an 'action' verb in order for me as researcher to attempt to portray actions and activities within the activity system. This approach made the process of highlighting the 'actions' behind the inherent tensions within the activity system much easier. The raw codes were then organised into a 'logical order depicting some sort of a flow not unlike the natural flow of a story and mapped into tables. The first analysis (David's

interview) is then described in detail in order to show the intricacies of the data analysis process that led to the findings discussed in this Chapter, but the subsequent analyses only reflect the major tensions that are derived from the analysis of each interview and implications for the activity system as a whole.

In Chapter 5 of this thesis I have portrayed narration as a complex social process. This Chapter describes a narrative analysis of nine interview transcripts from lecturers using ICT in their daily lives at the HEI. The organisational and social contexts into which ICT is integrated at the HEI were explored through the narratives in this Chapter as a major factor that may have influenced whether or not lecturers changed any of their general social processes, including their fundamental ideas about teaching and knowledge (which is the main focus of this inquiry). The general social processes that were of particular interest in this Chapter were the *changing epistemologies and pedagogies* of these lecturers as they engaged with ICT in their daily practice as educators. I argued that changing epistemologies and pedagogies qualify as social processes and that evidence of their existence was embedded in the actual stories told by the lecturer's.

Each narrative presented in Chapter 5 demonstrates the changing nature of situations at the HEI and how they eventually led to the participant's present 'situation.' The performative approach to narrative analysis, as described in Chapter 2, was used in order to expose the lecturer's "preferred identity" in the stories they told. I looked firstly at *the kind of story that the narrator placed him/herself in*; secondly, *how he/she located the other characters in the story in relation to him/herself*; and, how the narrator related to him/herself, i.e. *what are the identity claims that the narrator makes*. By viewing all of the above-mentioned factors as part of the three-dimensional narrative inquiry space as proposed by Clandinin and Connelly (see Chapter 2) I aimed in this analysis to derive interpretations and write research texts in the form of narrative segments that addressed personal and social issues while also addressing temporal issues by not only looking at the event but also to its past, present and future.

In order to 'see' the narrative segments using the same Activity Theory analytical lens as in Chapter 4 I arranged each of the nine sets of data in Chapter 5 into

tables based on continuity (temporality) and used this as a starting point in the analysis to identify further tensions in the activity systems and to initiate the narratives themselves. Each narrative in Chapter 5 starts with a short description of *the kind of story* each participant places him/herself in. This covers the notion of place (situation) and sets the scene for each narrative. I then describe *how each participant positions themselves and others in the story* with emphasis on the personal and the social (interaction). This is followed in each case by an elaboration on the *identity claims* made by each participant. Each of the three above-mentioned sections are loosely based on what the participant did in the past, what they are currently doing, and what they aim to do in the future (continuity/temporality). I end each narrative with a specific focus on the nature of each participant's emerging epistemology and pedagogy.

Chapter 6 is a discussion of the empirical component of this inquiry in which I provide an overview of the main findings arising from the inquiry as described within this thesis. The analyses reported in Chapter 4 only served to reflect the major tensions that were derived from the analysis of each interview and implications for the activity system as a whole. In Chapter 6 I present a list of the tensions exposed by the nine participants relating to each of the components of the activity system and provide an indication of the commonalities identified by means of further comparative analysis of these tensions. These tensions are described as critical to understanding what motivates specific actions within the activity system and, more generally, in understanding the dynamic nature (evolution) of the system. I argued that these tensions represent system dualities that must be understood in order to understand the continued development of the ICT culture at the HEI.

Chapter 6 continues with an elaboration on the significance of the narratives as presented in Chapter 5. The narratives are then discussed in terms of expanded learning as proposed by Engeström (1987, 1999) and the notion of expansive cycles of learning that I have depicted in Figure 7.1. The contribution of this inquiry is then described in three sections, the discussion of the theoretical and methodological contributions, followed by a section on the implications for the preparation of an ICT community of practice.

This Chapter, Chapter 7, serves as an overview of the inquiry. Firstly, the findings are discussed in the light of the research question and from the perspectives of the three methodologies used in the inquiry. This is followed by a discussion of other significant findings and implications for the professionalisation of lecturers' practice at the HEI. Limitations of the inquiry are exposed followed by issues for further consideration and research and a final comment on the inquiry.

7.2 REFLECTING ON THE RESEARCH QUESTION

This discussion is framed by the research question as presented in Chapter 1 as: ***how does initial engagement with ICT affect change in epistemology and pedagogy in the practice of higher education practitioners, and how can narrative analysis reflect this?***

Firstly, in problematising the notion of *engagement with the tools of ICT*, I locate the problem in three spheres based on scrutiny of the analyses in Chapters 4 and 5, namely 1) lecturers' theories of knowledge and teaching, 2) the individual lecturer, and 3) the setting where ICT must be implemented and sustained – the HEI and its related communities. In all three of these spheres I have observed constraining factors in this inquiry, the most important perhaps being the *unyielding epistemologies* of some lecturers (see Mark, Susan and Rose). Thus, I argue, although these lecturers delve into the 'shallow waters' of ICT in education they do not do so in sufficient depth and resign themselves to the perpetuation of cognitivist, behaviourist and objectivist forms of knowledge without discovering more about the medium that could possibly liberate their restricted epistemologies (see the analysis of Rose's interview). These restricted epistemologies limit their pedagogic vision and may therefore influence their future endeavours in using ICT in their teaching. This is slightly less worrying in Mark's case where he is aware of the need to change his pedagogy but has not yet done so. Susan, on the other hand, professes to be using the same old principles for teaching online and does not see the need to change her teaching. The only reasons I can provide for Susan's success thus far are that she has not yet done all that much online, and

secondly that her focus on 'education as dialogue and collective inquiry' is already very similar to the demands of an online pedagogy. The systemic inequalities that have been complexly maintained and reproduced by the prevailing culture within the Faculty are also evident. This can be noted by reading the sections on the tensions related to the division of labour within the Faculty of Education. Some of the most commonly identified tensions in this section include the tension created by the need for support from someone with an educational and technical background within the Faculty, and the tension caused by varying abilities of lecturers with regard to technical ability and teaching with ICT. As seen in the narratives, many lecturers within this culture seem to be trapped by their own personal theories of knowledge and teaching more than by the technology itself. In many cases they state that they just do not know enough (Susan, Mark, Irma). I have also observed that there are lecturers who experience some real epistemological change as a result of their engagement with e-learning and that these changing epistemologies are evident in the narratives and other findings that have emerged (see David, Brian, Ellen, Walter and Irma to a lesser extent). All of the narratives do have one common feature, namely the feeling of being *alone* at some stage of their engagement with the tools of ICT.

Secondly, regarding *epistemology and pedagogy*, the purpose of this study was to explore how initial engagement with ICT in education affects possible change in the epistemology and pedagogy in the practice of higher education practitioners. The anticipated change in lecturers theories of knowledge and teaching have been highlighted in this inquiry by exposing some components of an emerging ICT culture at the HEI using multiple methods of data analysis using Activity Theory as a theoretical framework and analytical tool. Changes have been noted from the analysis relating to personal and professional aspects of lecturers, the HEI environment, the support and development structures, and personal tools and capabilities. More than these aspects, however, the way engagement with the tools of ICT is exposed by the nine participants in this inquiry reveal fossilised ways of 'doing' higher education in some cases and also an inability to work in a distributed cognition environment in which personal knowledge power becomes shared power (see Irma for an example of this).

Thirdly, the use of narrative analysis as research tool in this inquiry was explored. It was mentioned in the introduction to Chapter 5 that the 'distribution of cognition' cannot rule out the influence of *lecturers' stories* and their emotional and social content. In this inquiry, narrative has been used as a context to describe 'human-with-tool action' (lecturers engaging with the tools of ICT). To this end distributed cognition asserts as a unit of analysis a cognitive system composed of individuals and the artifacts they use. The cognitive system in this inquiry is something like what the activity theorists would call an activity. In this inquiry the activity of teaching using the tools of ICT can be equated to the 'online teaching system.' This system has goals; in the online classroom for example, the goal may be 'successful learning of a concept or skill' by a student. This system is not relative to an individual but to a distributed collection of agents including lecturers (despite the fact that they see themselves as alone), support staff and artifacts to name but a few. In this inquiry I have tried to expose how researchers cannot understand how such a system achieves its goal by trying to understand the properties of individual agents alone, no matter how detailed the scenario. The lecturing community using ICT within the Faculty of Education can only be understood when we consider *the individual agents of the system* and the coordination that is necessary to ensure active engagement with the tools of ICT. This leads to the important distinction that distributed cognition views 'people and things as conceptually equivalent', hence the above-mentioned view that both lecturers and artifacts are 'agents' in a system. Activity Theory as used in this inquiry, on the other hand, with its emphasis on the role of motive and consciousness - which belongs only to humans - sees artifacts and people as different. The artifacts are merely mediators of human thought and behaviour and can be seen as 'instruments in the service of activities'. For this reason, the Activity Theory notion of artifacts as mediators of cognition combined with a narrative approach as used throughout this inquiry is justified and seems to be a more sensible way of discussing the relationships between lecturers and ICT (people and artifacts). In this way, the individual roles of the lecturers within the system can also be easily identified.

From the great variety of tensions that have been identified in Chapter 4 and the varying aspects of the narratives as presented in Chapter 5 and 6, it is evident that

strength may lie in diversity which can be harnessed within a healthy, proactive community of practice that is built upon a strong theoretical foundation. This theory is not limited to the somewhat shallow literature on educational ICT alone but also includes sociocultural theory, Activity Theory and tool mediational theory to enrich the developing field. A number of overlapping themes in the narratives strengthen and support the idea of an ICT community within the Faculty of Education and, on the other hand, many of the tensions exposed by the analyses of the nine interview transcripts are diverse in nature and point perhaps at the need for diversification and not standardisation in teaching with ICT. *These are all issues that would not have been exposed with any other methodology and further justify the use of narratives in this inquiry.*

7.3 LIMITATIONS OF THE RESEARCH

This inquiry was limited to observing and interviewing only nine lecturers from a single academic Faculty at a Higher Education Institution. Small sampling sizes decrease the ability to generalise findings and findings may not be generalised to all areas of education. Findings, therefore, cannot be generalised to other faculties within the HEI, although there will surely be some similarities. In addition, lecturers from only one university were studied and these findings cannot be generalised to lecturers at other institutions where a large number of factors may make their situation different to those of the participants in this inquiry.

Being part of an education Faculty may have provided the participants with an “unfair advantage” with regard to educational background and knowledge. Lecturers within the Faculty of Education almost exclusively come from teaching backgrounds at school level and many have further experience in teaching at tertiary level. Lecturers in other faculties, on the other hand, may not have teaching backgrounds and many teach without any formal teaching accreditation. The question arises, would these lecturers with no formal educational background have provided the same data as the ‘privileged’ lecturers within the Faculty of Education?

The reactive effect, known as the *Hawthorn effect* or *novelty effect* (Institute for Higher Education Policy: 1999), points out increased interest, motivation or participation on the part of the people simply because they are doing something *different, not necessarily better*. This may have affected the lecturers in this study due to the fact that, for most of them, it was their first exposure to teaching with the tools of ICT. Lecturers' responses, therefore, needed to be analysed with some level of reservation.

7.4 ISSUES FOR FURTHER CONSIDERATION AND RESEARCH

The research findings in this inquiry have shown that, in terms of lecturers' emerging epistemologies and pedagogies as a result of teaching using ICT, the development of an online pedagogy is essential. All of the dimensions of effective online pedagogy are still open to be addressed through research. As this thesis draws to a close, there are several areas that have been touched on in the course of the inquiry that present themselves as topics for further research. Some of the issues for immediate attention include:

- A detailed investigation into what constitutes 'online pedagogy' and the assumptions and practices that underpin this pedagogy.
- Further research into the creation of an actual community of practice for lecturers using ICT in their teaching based on the findings of this inquiry may lead to a number of further inquiries including the following.
 - Issues concerning support and training, which are often not separated in the literature, can be addressed as separate matters of concern within a healthy community of practice.
 - Increased time commitments (workload), mentioned by a few of the participants in this inquiry, and the potential of the community of practice to address this issue can be explored.
 - The role of strategic planning and the development of a joint vision for ICT within the community of practice deserve further exploration.
 - Epistemological and pedagogical issues have been addressed in this inquiry but there is still room for further research on philosophical

and social matters that may also play a role in the engagement of lecturers with ICT in their teaching. Presently, these philosophical and social matters described in the literature are often based on little or no empirical data.

- Further elaboration on the 'shallow' nature of current research in the field of educational ICT and the need to incorporate other theories and methodologies into this research.
- The matter of incentives and rewards for lecturers using ICT in their teaching is an issue that has received little attention in the literature and the single recent survey in South Africa by Kotze and Dreyer (2001) calls for the formalisation of these incentives.

These are only a few of the issues arising from this inquiry and further scrutiny of the text will surely lead to the identification of topical issues for further exploration through research.

7.5 FINAL COMMENT

These final pages do not conclude this thesis. They act as an open invitation to the reader to engage with the content of this inquiry and to critically reflect on the research process and findings. This work must be seen as the starting point of further exploration for lecturers and researchers alike who are, and must be, responsible for defining the work that they do. I argue in this conclusion that lecturers' roles in Higher Education must be seen as *works in progress* that are typified by constantly emerging theories of knowledge and teaching, and that frozen or unyielding epistemologies and pedagogies can be suitably addressed within a structured ICT community of practice.

Throughout this thesis I have asked questions that have hopefully inspired further questions that allude to deeper understanding of the complexities of using ICT for teaching at a Higher Education Institution. As seen through the narratives in this inquiry, lecturers' roles are both diverse and individually rich and should not be dictated to by the push towards standardisation in educational ICT. **I propose the**

rejection of the idea of standardised training, support, and guidelines for teaching online and propose that lecturers teaching with the tools of ICT insist upon nothing less than individual learning situations that are rich in skills and learning experiences *and supported by a strong and vibrant, community of practice.*

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APPENDIX A: E-mail to staff

Colleagues

Thank you once again to all who gave up the time to attend the short workshop on Monday where Duan van der Westhuizen and myself offered a brief perspective on the use of the Course Management System WebCT and its potential for course delivery within the university context. This email is addressed to one and all within the Faculty of Education and Nursing to now invite you to become an active member of an online community of educators that I have set up within the WebCT environment at <http://edulink.rau.ac.za>. To gain access to this community you will need to use your existing webCT ID and password or alternately please check the attached list to find your new webCT ID. Initially your password is the same as the ID but you may change it the first time that you enter the "Teaching Online" environment (You will be prompted to do this).

Anyone with an interest in presenting certain aspects of a course online is welcome to take part in the discussions and sharing of knowledge within this community. Apart from the obvious benefits wrt your professional development, you will also (with your permission of course) be active participants in an action research study as highlighted within the "Teaching Online" environment. Briefly, however, we are currently engaged in research, which investigates how a program for higher education can be developed and implemented utilizing an action research methodology in order to support the professional development of the e-learning facilitator at RAU. Please read the postings within the discussion forum for more detail.

Accordingly, if you would consent to be part of this study, you will be provided with a letter of consent to state that you have consequently given your permission to take part in the online activities and to be interviewed. This letter will need to be signed and dated and returned to me as it forms part of the requirements for ethical research measures as mandated by the Ethics Committee of the Faculty of Education and Nursing.

From time to time I will be sending an email to remind you of important happenings within the online environment. Please make use of this unique opportunity to share and learn with colleagues about this topical and highly relevant issue.

Thanking you in advance for your participation

Geoff

PS Please let me know if you have not yet been allocated a WebCT ID by replying to this email

=====
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Appendix B: David's interview

1 @ Thursday 2nd of October, 9.30

2

3 @ Thanks # for being here, I appreciate your time. You know what the study is all
4 about – or at least I hope you do! I'm going to ask you a little bit about your
5 experiences with e-learning. Remember that at any time you can pull out, you
6 can tell me if you would not like to take part in this interview anymore. Let's
7 get on with it then. I'm going to ask you a general question to start off with,
8 about how you and your colleagues have been experiencing e-learning at the
9 institution?

10 % What kind of timeframe are we talking about – from - from the beginning?

11 @ From the beginning would be good.

12 % Yah! I think you'll probably know that I've been involved in e-learning since
13 the beginning here at RAU. Myself and a colleague probably started using the
14 first course management system, it's called "*Web Course in a Box*" in 1998 –
15 we were the first people at the University that used it. I've read about it, it's in
16 the fields. I'd read about it, I was very... keen to use it, I was very impressed
17 with the technology, the kind of things people could do with it. So yes, I started
18 using it myself in 1998. We ... I was so enthralled by the technology that I
19 thought that it might be very important for the whole University to use it. I've
20 had a couple of conversations and talks with people in management and – that
21 was quite a battle to convince them. But from the Faculty there was lots of
22 support and I just went on with it, and I just did it. And a couple of other people.

23 @ Is it any different to the way you did things before?

24 % It's substantially different. I was - I was a beginner lecturer at the time anyway,
25 and I came out of a school and it was hard for me to - to get away from this idea
26 of lectures. You know that's what I was used to, that was the example I had all
27 these years, and - and I was perpetuating that. As a lecturer there's fifty minutes
28 and you've got to – you've got to talk for fifty minutes and go away and
29 expect the students to do a whole lot of stuff by themselves afterwards and ...
30 So, when we adopted this technology we – it was called "*Web Course in a Box*"
31 - we still had our contact sessions, but we - we had to redesign and reconfigure
32 the way that we did things. We decided to have a blended type of - of use of the
33 technology where we'd still have classes, and some activities we did in class
34 and some activities we did in - on the web. So we did new things with the web

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35 that we haven't done before, especially conversations, discussions, so we would
36 pose questions and students would have to discuss this over a two or three week
37 period. And I don't think that is something that we actually, that – I hadn't done
38 before anyway, where there would be this long continuous drawn out
39 conversation among the students. And that was insightful you know, we - we –
40 we learned new things. We were also beginners at the time and learned lots of
41 things, made mistakes. There were problems, problems with access. But we
42 were very happy. I mean the students were mad - they were crazy about it, they
43 enjoyed it a lot, and that in itself was something that we found valuable - that
44 the students were so enthusiastic about their learning and the things that they did
45 while they were learning. So that was quite ... yeh, that was promising and we
46 enjoyed that.

47 @ Were everyone - or was everyone enthusiastic about it, including your - the
48 other colleagues in the faculty perhaps?

49 % Well there were two, it was X and myself who were the course presenters. She
50 was maybe more the theoretical person, I was more the practical person so I had
51 my hands on the technology a little bit more than she had. And both of us were
52 enthusiastic. The majority of the students, I would say of the group of forty at
53 that time, I think of the forty I'm sure thirty-eight of them were – were very
54 positive. I think the rest of the colleagues ... you know, as I said, I was new in
55 the Faculty, young, inexperienced, didn't have a doctorate, so you know, things
56 – people - people tend to check you out a little bit, and people who are more
57 experienced will always come in and - you know they're used to young people
58 coming in with new ideas and enthusiastic ideas and - and you know if you're
59 young you need to learn to temper those and, but surely I was very enthusiastic
60 and I tried to sell this idea to many colleagues, and some did adopt it and some -
61 some were a little bit sceptical, I think they were older and wiser and thought
62 "heh this is another fad so let's - let's lets check it out". And some were just
63 totally *a*-pathetic, they were just not interested at all, and will probably never be
64 interested. They've got their way of doing things and it works for them and you
65 know that's fine. In the beginning I wanted to convert everybody, now I think
66 I've got a bit of a more mature approach and I just think those who want to will
67 and I'll help them if I can and I'll support them and be enthusiastic about it, but
68 those who won't - they must do their own thing.

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69 @ Can - can we see that as your recommendation for enabling e-learning – leaving
70 them alone to tend - to – to carry on by themselves?

71 % Well I think - I think you must do what you need to do. I think you must, if it's
72 successful and you – you believe in the technology – and - well not the
73 technology itself - but in the methodology I guess, I think you've – you've got
74 to advance the thoughts and the developments and those kind of things to
75 people. But there are ways of doing it. You're doing it through your research,
76 you do it through publications, you do it through seminars, you speak informally
77 with people on the corridors. But I think from the very beginning, I've always
78 tried to have a kind of a pull attitude instead of a push attitude. I've always
79 thought I'll do it one way, I'll talk about it and other people will hear about it
80 and they - they might be interested. So, so I don't say that you must just do your
81 own thing and just keep on going with it and ignore people around you – that's
82 not what I'm saying. I'm saying that you – you must do your own thing and you
83 must obviously sell your ideas. But trying to force it down people's throats is
84 not going to work and I think you need to accept that – and that's reported in the
85 literature – there's a Bell curve... that looks at this kind of thing – you need to
86 accept that some people are just never going to do it. They've been teaching in
87 one way for thirty, forty years. They are successful, they're successful as
88 academics, they're successful as teachers, why would they adopt it? It's new
89 learning curves for them. And you need to accept that, I think. Maybe if your
90 job was ... you see my job is not advancing it. I'm - I'm – I've got an academic
91 job, I'm an academic, and I teach, I've got that. I don't have any agenda or any
92 kind of brief to sell e-learning to anybody. It was my brief for a while. I was
93 seconded and - and then I did, I sold it. But now it's not my brief anymore, and
94 it's well, - established well enough for people to make their own decisions about
95 it.

96 @ So how much pedagogy does one need to teach in this – in this way, with e-
97 learning?

98 % Well, pedagogy is pedagogy, you know. It is different. There are different
99 possibilities. There are different applications on the Web. There are different
100 kinds of things that you can do. The context is different: the face-to-face, the -
101 visual cues that you find in the classroom, the cues of– of - of voice and smile
102 and face and all of those things are absent in an online – online environment,

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103 and you need to - to factor that in, in your pedagogy. So I would - I would say
104 you need to look at the attributes of the technology, and see how that could best
105 serve your needs. I don't think the departure is - is-is - I know this might sound
106 a bit behaviourist but I don't think the departure should be "I want to use this
107 kind of pedagogy" - I think the departure is "this is my - these are my
108 outcomes, this is what I want to do, how can I do that best?" and then some of
109 those things you can do best in - in face-to-face interaction, some of them you
110 can do best in - in-in a class situation, even in a lecture situation, or in a group-
111 work situation. Some of that you can do best online. So, yes, pedagogy but, you
112 know, what do I want to do and then what pedagogy's best for what I want to
113 do?

114 @ So it seems that you've learned quite a bit from your venture into e-learning?

115 % Well yes I have. I - it's been a long road, the first - the first kind of exposure I
116 had to - to - you know I came in - as an academic - as literally somebody who
117 used to be a - a professor's assistant, and used to teach *Word* and *Excel* and that
118 kind of things. That's how I came in and I had very little pedagogy, and
119 information about teaching applications of technology and my master's as well
120 was - was a dissertation model so there were - there was no reading. I wasn't
121 exposed to - exposed to a wide breadth of - of reading materials. I was focused
122 on my dissertation topic, which was computer literacy, as such. So I don't have
123 that exposure of different readings. I don't have a lecturer who taught me about
124 these things. And when I came in, I came in as an assistant, y'know, and - to
125 teach the hard skills. And then I attended a conference in Cape Town, where I
126 saw a couple of things and I thought "Wow! Y'know, this is actually more than
127 just about *Word* and *Excel et cetera*". And then in the next year I attended a
128 conference in Freiburg, no papers, too inexperienced to deliver papers, nobody
129 really helping you writing papers, and having done too little to do papers - that
130 was in 1998 - but I grew a lot in 1998 because of the first implementation of my
131 own course. And then - I think in 1999 - I did a paper together with Erna at a
132 conference in Pretoria. And I think it's when you start doing these papers that
133 you start learning as well, your experience teaches you a lot, that when you start
134 doing papers, then you start reading more. You need to find substantiation of
135 what you have been done - "Ah well you see I've done this" - but you need
136 some - something in literature that substantiates what you've been doing. So, I

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137 think in '99, I did a paper – maybe two – one – one locally and one in Atlanta,
138 and then in 2000 I didn't go anywhere, I can't remember the dates now. But
139 yes, I've – I've done quite a bit of travelling, institutional visits, reading a lot,
140 subscribing to – to discussion lists – the I.T. Forum, the D.E.O.S. - the Distance
141 Education Online Symposium. So, you learn a lot from there. A little – did a
142 little bit of networking in - locally, but that – that takes time, this kind of
143 networking takes time.

144 @ Am I correct in interpreting that this reflection on – on your courses and so on -
145 that that's - that was an important part of your growth?

146 % It was. No, it – it was. I've got a very pragmatic approach to these things. I
147 don't set out to say I want to try collaboration or I wanna try I try to set
148 out and say: "this is my course, this is what I wanna achieve and how can I do it
149 best?" So ... trying things out and seeing what works - and what doesn't work –
150 yes, that has contributed to my growth. But it's not as simple as that, because a
151 lot of things could've worked if the context was different. If all my students had
152 access to the Internet every single day, a lot of other things would've worked,
153 y'know, so, so we've gotta temper what we want to do. This whole bunch of
154 theory about: "yes, do it like this and do it like this" and a lot of pedagogy that's
155 been written up. But when you get into the situation, you try, suddenly - it
156 doesn't work! Simply because of things like the access, or – or – or work
157 pressure, or sometimes the technology doesn't work. But I think I've been quite
158 lucky in that regard. But things happen, y'know, so, so the book knowledge
159 doesn't always translate to – to the authentic events and happenings.

160 @ Now you've mentioned a little bit about your teaching and a little bit of
161 research. Are those the only two things that you've done with regard to e-
162 learning? Do you only use it for teaching and research?

163 % What, e-learning?

164 @ Mm.

165 % I actually participated in an e-course, through a Canadian institute, which is
166 about e-learning, it was an e-learning course, but delivered by e-learning",
167 y'know, I learned quite a lot from that, as well, so yes I've learned myself. I'm
168 also asked to review other people's work – people from Cape Town, Pretoria,
169 their courses, they would call me and say "have a look at my course" and I'll do
170 that kind of thing. Obviously I learned from that, but I find myself increasingly

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171 becoming more able, more critical, more able to say "o.k. y'know, if we look
172 beyond - beyond what is impressive and visually stimulating, the kind of
173 activities that sits behind it might not be that good". So yes, as I, as I've, as the
174 year' have - has gone by, and it's not that many, y'know, we're talking about
175 five years here, I've learnt a lot. Is that your question?

176 @ I was hoping for something else there, but I ...

177 % Why don't you just ask the question again?

178 @ I will, let me ask it again - maybe I should rephrase it. You've - you've done
179 some teaching using e-learning. You've used e-learning to improve your
180 research, perhaps I could ask you about your - anything else in your - in your
181 life as an educator that has changed you, because of e-learning?

182 % Well my work habits change. There's no doubt about that. When I've e-learning
183 courses, I will easily have to change the way that I - that I manage my day.
184 When I come in in the mornings, I will first go to my - to the virtual
185 environments, or the electronic environments, and see - are there postings? Are
186 there queries from students? - and respond to those. So that changes, yes.
187 Sometimes there's an immediacy, which you never used to have. Y'know, a
188 student - if you see a student once a week - you would face the student once a
189 week and you'd've to field the questions and the problems once a week. Now
190 you could face those questions every day and sometimes three or four times a
191 day, and sometimes even from the same student that communicates to you in
192 this environment three or four times a day. So you've got to - you've gotta
193 manage your - your - your daily activities a little bit more - more differently.
194 And I think it was also a learning process, since in the beginning I was very
195 happy and impressed with every single question that came up and I was eager to
196 respond quickly, whereas now I think I'm a little bit more relaxed about it - I
197 guess is the word. A question will pop up and I'll - I'll answer it, and I try to
198 answer questions within a two-day turn around time - which is not always
199 possible, because you do other things as well.

200 @ And what do you currently think of the institution's e-learning environment that
201 they've provided for us?

202 % Well I think it's - it's improved. If I think of where we came from y'know, I
203 was very much part of that process. In fact I was seconded to establish the Web
204 CT environment, and so I was very much involved in - from buying the physical

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205 hardware to the negotiations about the software, and about deployment plans,
206 and it-it was a hard thing to do. So it was – it was hard initially being part of the
207 deployment and part of the development, so - so I'm very familiar with it. And
208 when I went – came back to the Faculty form the secondment there, the
209 University actually invested some money in – in appointing some people. But
210 it's grown substantially. If I think – I think the growth has been quite explosive,
211 from – I remember my initial conversations with management, they were very
212 reluctant to spend money and, but I think something happened somewhere. I
213 don't know to what degree my efforts contributed to this programme, but at
214 some stage the management made a decision and they invested a lot of money –
215 a substantial amount of money and I think the department now must employ
216 thirty - forty - twenty - thirty people - I'm not sure - but a whole lot of people
217 are employed. I think they face challenges, yes, I think it's hard for them. I think
218 they've got a lot of people that are not interested in what they're doing. Maybe
219 the way that they come across might be problematic. I'm aware of situations
220 where they spoke to heads of departments and deans saying “now we're going
221 to come and roll out for you” and y'know people find that threatening, they
222 don't want to hear people are going to roll out things on their behalf. But I think
223 technically they've got the people now with experience, with technical abilities,
224 and I think they're doing some good work. I think they've got a lot to learn, as
225 we have.

226 @ Knowing what you know now, would you have done anything any differently in
227 your life as an e-learning specialist – if I could put it that way?

228 % I would - I would've liked to – to have read more. But it's – it's just not
229 practical. I've got piles and piles of things that I need to read. Y'know I try to
230 get to those but I don't always get to th'm. I think – I - I literally think the only
231 way to go about this is by the experience. I think you've got to go for the
232 experience. I think you've got to fall in the deep end, I think you've got to go
233 through that first year and struggle your backside off and - things might... will
234 be hard. I think that's the best way to learn. So your question is “would I have
235 done anything differently?” I don't know, it's - it's very hard to say. I was a
236 'Lone Ranger' – limited money. If I was in a different situation I would have
237 done it differently. But in that situation I just did what I thought was best at the
238 time. And I don't think I could have it any other way than I have done it.

Appendix B: David's interview

- 239 @ Well we've heard about your history, now what about the future?
- 240 % Yes, the future is interesting. You know, you will know it has to do with new
241 developments, new trends in online learning, e-learning, the so-called 'second
242 wave', the whole idea of standards, SCORM, ADL, the whole idea of learning
243 objects, reusability. Those things are a little bit scary, because they're very
244 technical. You need a lot of technical knowledge, a lot of technical skills. It has
245 to do with meta-data. So, the future to me is a little bit scary. Maybe there was a
246 little bit of comfort, three or four years ago when I knew I was one of a few
247 people in the country that was doing this kind of thing. Nowadays everybody's
248 doing it. So, and – and a lot of people are learning and they're learning very fast
249 and they might have a brief to do just that, whereas I have a different brief as
250 well, so. The future is scary, it's scary because of the developments in the field
251 itself, it's scary because of the positioning in the country about this kind of
252 thing. One needs to stay abreast, but also remain a lecturer and do all your –
253 your other stuff that you have to do. But certainly I want to stay abreast, I want
254 to – I want to be a leader in the field. I want to expose my students to – to the
255 latest technologies. I have personally no more agenda or no brief to – to convert
256 other people. I - I'm beyond that phase, I'm not interested in that anymore – at
257 all. There's enough people to ... I think the whole e-learning drive is self-
258 sustaining at this point in time, and I don't see my role as maintaining that
259 anymore.
- 260 @ Do you think there should be someone in that role? Or does it lie with the
261 person themselves?
- 262 % I – I think you need somebody who is an expert, simply because not everybody
263 has the same aptitude and desire to learn some things. Every thing I know about
264 computers – or most of the things I know about computers - I've taught myself.
265 But I've got an interest in it and I've gotta – maybe I've got an aptitude. I think
266 so. I find it fairly easy to learn new software and new systems, whereas other
267 people struggle to do that. People are very clever and very intelligent but their
268 interest or their aptitude is simply not in that direction. And I think the danger is
269 for people like that, who have good ideas and who want to use innovative
270 things, I think for them the technology may become a hurdle if it's not easy to
271 use, and if they can't master it, and if they can't call somebody in and say "How
272 do I do this? What do I do?" So I think it's very important that you do have an

Appendix B: David's interview

273 expert, that you do have somebody that can be a fallback, on the one hand. And
274 you also need this person to be an innovator, to keep up to date, and to preach
275 the gospel to - of new developments - expose people to that, maybe having from
276 time to time a seminar or a newsletter or something like that, whereby people
277 are informed of the latest technology, the newest developments, and specifically
278 the newest research and thinking about it. I think if there's one thing I've learnt
279 from all of this it's that – that's maybe general of all academics that the
280 importance of research, the importance of new knowledge, the importance of
281 reading, and publishing and all of that. And there's a lot of these kinds of things
282 done in the field, but a lot of people aren't aware of it. And I think they may be
283 needing to be told about that. But it's not easy, because people also suffer from
284 information overload, you can give them too much and then that's just - they
285 withdraw from the process. So you need a skilled person too ... but I think –
286 your - to answer your question, yes you need a person, you need someone.

287 @ As you know in the study, we have tried to establish a community of online
288 educators, or e-learning facilitators, and, as you know, the response was not
289 very good. Have you got any opinions about that?

290 % Yes I do, and I think I've shared some of those with you but I'll share them
291 again with you. I think that the number one thing is that some people just have
292 this fear of the technology. If they struggle a little bit they'll just give up. It's
293 just much easier to fall back on textbook notes, study guides, walk into the
294 classroom. So I think if they struggle a little bit with the technology they'll just
295 give up. I think the other thing with the community - with the same group of
296 people is that most of us, we believe that we have a lot to do – lots of work to do
297 - we struggle to find time in our day to learn new things. We probably just
298 barely cope with – with the daily requirements of our jobs. So this is definitely
299 on top and it will not get priority. Especially not if existing systems work – or
300 they *seem* to work. In our minds they work, y'know, my - if my methods seem
301 to work – “o.k there's something new here, it's interesting, I try it, I struggle a
302 little bit, I don't have time so I'll give up”. So I think that's probably what
303 happened to some of the people. I also thought with the community that – that
304 you tried to establish, that the whole issue of – and I –I know it seems small and
305 - and simple – but the whole issue of - there's a couple of steps before you could
306 get to what you wanted to do. You had to start your browser, you had to type in

Appendix B: David's interview

307 the URL to get to the environment, you had to log in. Then you'd to go and read
308 something. Then you might come there and there's nothing. So you might do
309 this one or two or three times, and then you decide "well what the heck?"
310 y'know, I'll only look once a week and then pretty soon you forget about it. So -
311 it's - it's - it's like a self-destructive thing because you only need two or three
312 days of dead time and - and - that just grows, it just mushrooms and it just
313 perpetuates itself - on - on. So I think the combination of the steps that are
314 needed to get into that - I think if it was more 'in your face', like it was on e-
315 mail, which everybody checks every morning, when they get in people check
316 the e-mail, and it's an automatic thing. Maybe if the environment was - was
317 constructed around an e-mail interface you'd have had better participation.
318 Maybe ... so that's the third thing I think that was problematic. And I think the
319 other thing - maybe - was that there was not enough specificity about what had
320 to be done.

321 @ Mm.

322 % I understand the - that the notion of - of constructivist approach of - of -
323 y'know, things that sustain itself - community of practice - I understand those
324 things but the community wasn't strong enough, it wasn't - they weren't
325 *knowledgeable* enough, they weren't *interested* enough - to - to get excited
326 about things and - and physically pursue it. And if it was more structured you
327 might have sparked that. But it was - it was unstructured, it was open, so: "O.k.
328 I'm interested in this but what exactly is this about? Y'know - what am I
329 expected to do here?" Maybe, in - in my mind, maybe that was not specific
330 enough.

331 @ So reading between the lines, I - I see you - you do feel that there should be a
332 community of people that are interested in this somewhere, but ...

333 % Oh of course there should be. And there *are* people interested and - and y'know
334 you must also understand these things are going to take time. People become
335 experts only after a third or a fourth round, then they can become really
336 confident about this kind of thing and feel confident to - to analyse what they
337 have done y'know. There's on the one level you'll say "Ah! I've experienced
338 this and this didn't work." But you know that is only a low level of - of looking
339 at these things. After lots of experience you can start doing comparisons and ...
340 compare with literature and - and look at things from a meta-level maybe. And

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341 – and a lot of these people don't have the time for that, y'know reaching that
342 kind of maturity, to have the confidence to *really* judge, y'know, it's one thing
343 to say it didn't work, but it's - it's another thing to evaluate it and really find
344 out: "well it should've worked and this is why it didn't work".

345 @ Getting back to *your* experiences, I - I think we can safely say that you have
346 advanced and you can see yourself as an expert in the field. Perhaps you can tell
347 me about any specific experience along the way that has influenced you in a – in
348 a specific way?

349 % I think the greatest thing that - that - that - made me happy about online learning
350 is the enthusiasm that the students have about it. They really do, they – they -
351 they really, really have fun doing this. And they do things that they've never
352 done before. To them it's innovative. To them it's exciting. To them it opens
353 new doors, y'know, and ... I don't say that because they tell me this. We can, we
354 can see that when we analyse, when look at the kind of things that they say to
355 each other. And we've asked questions in other research projects to these
356 students and it's *overwhelmingly* positive. They really really like the
357 methodology, they really like the freedom, they really like the innovative – the
358 innovativeness of it.

359 @ And has there been anything that's been troublesome?

360 % Well, I – I think the first thing comes with experience, I think when you're new
361 and somebody's negative you might take it badly, initially. I think now that with
362 experience I - y'know, you keep - you'll always have one or two or three people
363 that - that find this to be a negative experience. And I think I'm mature enough
364 in the field now to understand that this is going to happen and it doesn't really
365 bother me. It bothers me in the sense that I must - I listen – I listen to their
366 needs, and - and try to address it, but it's not going to upset the applecart for me.
367 I understand that there might be this thing. I think that the other things that
368 bother me is that I still don't think it's utilised to its full potential, but I think I
369 realise why. It has to do with some of the profile of some of our students, who
370 don't have access to computers all the time, who don't have access to the
371 Internet. So I understand that part and – and especially in my advanced courses,
372 our master's degrees, even our honours degrees, these are people that work,
373 some of these people travel far, just to come to class for three hours might take
374 seven hours out of their day, because of travelling and arrangements and

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375 whatever. It's very hard in those circumstances to become fully participatory in
376 all of the activities. So I think one needs to realise this.

377 @ Well thank you for your honest opinion and I would like to invite you if you can
378 perhaps think of anything else over the next couple of hours or perhaps in the
379 next few days, please come back to me and let me know. I would like to ask
380 your permission to come to you again and ask if you've thought of something
381 else as well?

382 % Sure.

383 @ Any last words perhaps – or are you done?

384 % No, good luck with your studies, and I'm looking forward to ...

385 @ Thank you. It is now 10.01.

Appendix C: Susan's interview

1 10th of March, 11.40

2

3 %: Thank you for, being here this morning, I've given you a brief introduction to
4 what the study is all about,

5

6 #: Uh huh,

7

8 %: I think you've seen it happening over the last while. I'd just like to speak to you
9 informally this morning and ask you to tell me about your...you and your
10 colleagues experiences of um... e learning and e learning uptake within the
11 faculty.

12

13 #: Ok, you said you are not going to speak, but I need to ask you this question, are
14 you referring to e learning in its broadest sense, or are you specifically referring to
15 e learning for the purpose of teaching specific courses?

16

17 %: In the context of this study I would like to see e learning in its broader sense,
18 um...in other words any technology that you have used, any new innovations you
19 have used in the teaching of your courses, things like that.

20

21 #: But, in specifically with regards to teaching?

22

23 %: Ja...

24

25 #: In other words it's not with regard to other things...

26

27 %: Well your teaching and your research, and even your personal life.

28

29 #: Ok...Ok... maybe my personal life I think using the internet a lot with regard to
30 research, uhm... has changed my life tremendously, before I even start to look for
31 sources via articles, library etc, the very first thing I would do is do an Internet

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32 search. Um... and this is now with regard to official research, but it's also with
33 regard for, for instance my work as, as the head of the department, you know I
34 quickly need something to hone my skills of um...conducting meetings and the
35 first place that I would go, is to go to the internet and try to find information there.
36 The exciting thing of the internet is that you find things that you'd expect to find,
37 which leads you many times in... on pathways that you didn't expect to move on.
38 Uhm....and I think that for me is a strong point of the Internet, that you... you
39 decide on a specific avenue that you want to take, but through starting to surf, it
40 takes you in many other, on many other paths, and which are sometimes very
41 productive paths, and leads you into directions that you've never envisaged going
42 before. Uhm... so with regard to, to research and also then my work with regard to
43 management, the internet I use basically daily. Umm.... And I think it does
44 change the way you think also, because you start thinking more laterally the
45 whole time. I find myself working, and while I'm doing this, I would switch to
46 another document (laugh), umm, umm, on my computer, which has nothing to do,
47 or what which which- there is some... link, between the documents, but
48 immediately working with that that switching back to where I, to where I umm
49 was before. So you start working I think many times umm, with many things
50 simultaneously. I'm not sure whether I've done it before and whether this is a
51 result of my, my um working on the internet, but I am more aware now that I do
52 that. Ok, but, so that is in the broader sense. With regard to my teaching, I must
53 say I haven't used e learning that much, I think mainly because I'm not involved
54 at the moment in undergraduate teaching, and as you would know with the BEd
55 Honours students, umm...due to our circumstances, that we, um...many of them
56 don't have access etc. or the Saturday program, (phone rings) we haven't been
57 ventured, ventured, to its (laughing) to its..... (more laughing) that for the BEd
58 Honours students. Umm.... I try to via E and those people, to, to press umm...for
59 using the umm... web for communication purposes, I'm not always sure how far
60 this has developed. Ummm...because with regard to, to only using the web for the
61 purpose of communication, I think it is an excellent tool also... to get information
62 to students quickly, umm...to give them feedback in particular, I think it's very

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63 very valuable to give students feedback, timely feedback, umm, that they can
64 contact you... phone you and say " I have a problem with this" And instead of
65 giving, starting to giving individual feedback to each person which you do but
66 you very soon realize that there is a problem, and you can immediately then when
67 students do have access for instance to your website, or you use umm...WEBCT,
68 communicate with students and give them extensive feedback, and you can also
69 work proactively, umm....when you see for instance there is maybe in your
70 communication with students umm...lets say with regard to assessment, what you
71 communicated, it was not communicated clearly, that you can immediately
72 provide...its not feedback, its forefeed, what would you call it? Ja...You will feed
73 them with, with information, with, with help.

74

75 %: Feeding ahead...

76

77 #: Ja...Feeding ahead, feeding ahead, umm...and immediately address problems. So
78 for communication, umm... I've used the web quite a lot up to now. With regard
79 to teaching it is mainly on a masters level that I've used it umm... with a small
80 group of students, it worked well, umm...with the small group of students, and
81 basically also then the main way that I've used it was for support, so it was not the
82 main mode of delivery, it was basically for support, and to communicate with
83 students, and also to give them the opportunity to interact via WEBCT with each
84 other, so that they could also hopefully develop a learning community on the web,
85 umm...and that they could help each other during the process of exploration of
86 the theme or umm.. and that also worked very well for me. As I said at the
87 moment I've only used it for small groups and therefore I didn't experience the
88 typical problems I think that many others experience, and that is, the moment your
89 groups get larger, I think you need a lot of support, you, I can't see you dealing
90 umm...with all the students requests, really using the umm... the web to its
91 optimum, without a lot of support, and with that I would mean for instances
92 assistance via student assistant, somebody who has really umm... been trained to

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93 use that well. Umm.... Ja...and now you must ask following questions....*Ek het*
94 *nou baie gepraat.*

95

96 %: You've obviously thought about your teaching even though you say you haven't
97 really used it a lot, this e learning, how much thought have you put into it? What
98 have you, what have you changed, from what you have done before?

99

100 #: You see.....umm....my whole way of approaching teaching is, is teaching through
101 dialogue, umm...and I personally don't think I've changed a lot, what I try to do
102 is the, my notion of, of, of teaching as being in dialogue with students, and
103 approaching teaching as a process of collective inquiry where we umm....students
104 and the teacher together explore, enquire, this is how I approach my teaching in
105 my classroom, but this is exactly the same way then, what, what I've found the
106 web works very well, because the emphasis is on co-inquiry and you can use you,
107 um, WEBCT and the tools on WEBCT very much to support this co- enquiry. I
108 can't really say I've changed my way of teaching, I found the WEBCT, the
109 umm... and the web in itself very useful as a tool to enable this inquiry and
110 exploration process.

111

112 %: Do you think it is because you had this background in Education, that you didn't
113 have to think about it that much?

114

115 #: Yes...and remember, I've written books and many articles about teaching in
116 higher education, so for me it was a, an, an easy process just sliding from the
117 classroom situation to the web situation, because for me I could use exactly the
118 same principles that I've used in in...umm... teaching in the classroom and
119 through the process that I had to write about teaching in higher education, explore
120 the notion of dialogue in higher education through my writing, I think I have a
121 clearly developed view of what I think should be happening in teaching facing
122 learning central and everything that you uh, do as educator is geared to its
123 enabling learning, but learning, active learning in the sense of learning as enquiry,

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124 and um.. I also I think explored this issue in my, in my uh inaugural lecture, the
125 notion of creating communities of inquiry. The one thing that I still believe, and I
126 know there are different views about that, ...is I believe that the web is a very
127 good way to sustain communities of enquiries and to support the communities of
128 enquiries. I'm still of the view that the best way to create a community of inquiry
129 would be through contact with students. Once you've, you've created that
130 community or you start creating the community of inquiry with, with contact,
131 direct contact with students, for me, the web is an excellent tool to sustain and
132 nurture the community of inquiry. I myself cannot yet make the jump, maybe I
133 will, I don't know in, umm...I don't have enough experience yet, to, to think that
134 you could only via- you've seen your students create the same type of community
135 inquiry, of inquiry that I do with my students, when I, when I talk to them
136 personally, when I interact in the class with them.

137

138 %: How much pedagogy does one need to, to teach like this, in this, using the
139 technology these days?

140

141 #: My fear is: If you don't, don't have a well developed theory of, of teaching, your
142 own personal theory of teaching, that using the web could become very technicist,
143 it's, it's, and it could become yet another tool of dumping information on
144 students, instead of using it as a way of, of umm.. enabling umm... sustaining,
145 supporting, guiding learning. So once again I think you know if you have a well
146 developed and a, and a philosophy of teaching, or theory of teaching, you will be
147 a better teacher also via the web, umm... on the other hand, if you are an
148 information dispensator in your classroom, somebody who dumps information,
149 my sense is that you will do exactly the same. I don't have the experience of the
150 other way around, you know umm.. I move still, because this is the way I've been
151 living my life as an educator for many years, from the classroom to the web, that
152 the web is for me a way of supporting. I don't have enough experience to, to, to
153 use the other...way as uh..a point of departure.

154

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155 %: From that- what would be your recommendations then to enable e learning in the
156 Faculty amongst our colleagues?

157

158 #: I think amongst our colleagues it's difficult, let me say to you why, because we
159 think we are all experts on teaching and learning (laugh) and therefore umm...
160 and that is sometimes a help, but is sometimes also a hindrance, because we might
161 think we don't have anything to learn...umm..... I think maybe, I don't know,
162 a good way to start by, by helping people to understand what, what the web can
163 do for them, and what, ja, what e learning can do to support learning and I think
164 many of us also must be, there are some who feels threatened... and have the
165 notion that we are trying to replace teach, educators teachers with a machine, and
166 that the, that maybe with, with people in our Faculty, it would be a good way to
167 say- but umm... our focus is, as educators to, to help people to learn and that uh..
168 this is a tool... through which you can mediate... learning. So it's not a
169 threatening thing, it is not something that, that is there to take over your role as an
170 educator, it, it can be there to support you, but I think the second things is, if we
171 don't have sufficient support for lecturers, forget it, because it's yet another thing
172 many people would say, it's yet another thing that they want, I must now learn a
173 totally new way of doing, it takes my time, this uh... umm... so if there's not
174 sufficient support... I think we are, we in the broader sense are fighting a losing
175 battle.

176

177 %: Anything else about our faculty's infrastructure to do with e learning?

178

179 #: I think we have good infrastructure available, umm... it's just a case of
180 understanding what support we need, asking for the right support and having,
181 particularly in the future sufficient funds available to give the support. You know
182 the University has bought into this notion of a multi-media, umm... multi-modal
183 approach, but I, I'm really of the opinion, if we really want to go for such an
184 approach umm... we need lots of support also in, in, in, with tutors, tutors that are
185 available to help students to, to use this in an optimal way, without that, I don't

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186 know, with large groups, with small groups its not a problem, you can deal with it
187 yourself, but the moment you start working with large groups it becomes a
188 problem.

189

190 %: What I'm missing is, the part on how you got started in e learning, that is the part
191 of the story I am missing...

192

193 #: Well, I'm always interested in new ways in which you can facilitate learning,
194 umm... and umm.... so this was just a new, new avenue to, to explore. So,
195 umm...ja, and of course, I sit in a Faculty where people like D, like yourself,
196 started talking about e learning much more, E, and umm, through that, my
197 interest, the interest that I already had, umm... was I think fired up, and umm, so
198 it's also the environment and because I'm always interested in any new
199 developments with regards to teaching and learning.

200

201 %: You say it's the environment but it seems like you are concentrating more on the
202 people...

203

204 #: Ja, OK the people,

205

206 %: ...within that environment?

207

208 #: ...people in that environment, ja you're right, but for me the people are part of the
209 environment umm...so it was hearing what other people are doing, umm. with
210 regard to e learning, umm... getting excited about what other people, seeing what
211 other people have done, also via conferences etcetera, and then saying, well, this
212 might be a good way to, or a new way to look at, at teaching and learning and, an
213 avenue maybe to explore.

214 %: So there was no sudden mindshift, it was a gradual...

215

216 #: Ja..

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217 %: ...thing in your case ?

218

219 #: Ja, for sure..... *Het jy nou al jou vragies al gevra?*

220

221 %: No, there are some that are not relevant anymore, you've answered most of them,
222 umm... knowing what you know now, do you think you would have done
223 anything differently... in the past?

224

225 #: You know, %, I don't have enough experience I think you know as I said my
226 experience with, with e learning is limited to small groups, so, no, I don't think
227 so, not at this stage.

228

229 %: Then one last thing perhaps, any ideas for the future with regards to e learning?

230

231 #: Personally, for the faculty, for, to whom are you referring now?

232

233 %: Well let's start on a personal level

234

235 #: %, it depends what happens with my life, (laughing) umm....ja, so, so I really
236 haven't thought about it, I must be honest, I think at the moment I'm to
237 preoccupied with, with structural changes, and planning for the future, so at the
238 moment my teaching, even though it is a passion for me, is not the most important
239 thing, there are more important things that I deal with at the moment, so I will
240 probably maybe again think about this later, but, when, it depends, umm.. but not
241 at the moment.

242

243 %: Well I think I've heard everything that I need to hear, if I may just ask you, if at
244 anytime if you can think of something else, or if you'd like to come back to me,

245

246 #: Sure...

247

Appendix C: Susan's interview

248 %: Perhaps I can come back to you later after listening to the, to the tape recording,
249
250 #: Mmm, I'll do some follow up if you want to,
251
252 %: Mmm...what I like to call stimulated recall, I'll ask you about certain things that
253 you said,
254
255 #: Aha, mm.....sure,
256
257 %: Things that I would like you to elaborate on,
258
259 #: Yes, you are welcome,
260
261 %: Well thank you very much then,
262
263 #: *Goed*,
264
265 %: It is now twelve o clock.

APPENDIX D: Brian's interview

1 10:06 17th of March,

2 % Thank you * for being here this morning. uhm, I've given you a brief introduction
3 to the study... you know what it is about, and I am very happy to have you here.
4 I'd like this morning just for you to tell me your personal story about your
5 involvement with e learning within the faculty.

6

7 # Thanks %... nice to be here, to be able to chat to you. Uhm, my involvement with
8 e learning has, has come some way. I think the first time I was involved, we just
9 went along to a course and they showed you how WebCT works, and I've been on
10 a number of those courses. It was very frustrating to me... in those courses, as
11 soon as you go away, because your time is so limited, uhm, you don't use the web
12 any further, and then you forget what you've learned. So you've got to go on
13 another course... So I made up my mind to... get involved in it quite deeply, so
14 that if I do have a course on the web, then I'm sort of forced uhm, to update it
15 myself. I can't just leave it and forget about it... it's there. You are working with
16 the students everyday, and uhm, I think that may have been a good thing, because
17 I do believe, and I would just keep on going to courses, and uhm, I will keep on
18 forgetting, and, and you don't have time, and you're going to procrastinate, and
19 you going to eventually just use it for saying, well you know, it doesn't work.

20

21 So I decided I will go with SOLA and do the whole gig, the whole course. And
22 that's involved in me taking the introduction to quantitative research, it's a
23 master's course in Education... and putting that online. It's got five themes in it.
24 Theme one is really just an introduction where I try to show them how the
25 research process works, the quantitative research process. And that involved,
26 trying to explain, as clearly as one can, what is meant by an independent variable,
27 and a dependent variable, Uhm, having been a science teacher, I had a reasonable
28 idea of what it is, because in science it is a lot easier than in the human sciences.
29 In the human science you can't control a variable so easy. So it is difficult... In
30 the physical sciences...when I give physics... you take Newton's' second law for
31 example... I know that the force that you apply to a body is directly proportional

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32 to the acceleration produced provided you keep the mass constant, so I wanted to
33 expose the students to that, because there are only three variables... and if we
34 keep the one constant, they ...(inaudible)... be looking at force against
35 acceleration. So the idea that I thought of, was to add a way, and I explained to
36 them more or less what I wanted, or what I thought was correct, and then it was
37 outsourced to Vian in Pretoria uhm, someone... Florescent technology they call
38 it... It came back, and the animations were great. I then changed a couple of
39 things, and then I had to go and do a voice over for that... which was to me a
40 totally new experience as well... because here you've got the pictures, and you've
41 got to get your, what you say... to fit with that picture, so it wasn't that difficult
42 but it was a totally new thing. It makes you feel a little bit uncomfortable make
43 no mistake... uhm to talk and to synchronize it with the animations. But
44 eventually for theme one, we have got quite a few things... The research process
45 starts off with witches, uhm, because we said that a witch is a phenomenon... and
46 then we looked at the variables that a witch has like a hat, and the shape of a face,
47 and her eye color, and her weight, and the power of the broom, and then we go on
48 and explain, we are only eventually going to take two variables. We are going to
49 look at their weight, and the level of motivation, because I thought to myself, if in
50 our world there were witches, I think those who are a bit overweight like I am will
51 battle a bit with a broom and maybe the levels of motivation are not so high;

52

53 % (Laughing)

54

55 # So he actually did that very nicely in the animations... because he shows the
56 one... there's three witches, one with the green dress is, is nice and slender, the
57 one in the orange... red dress, one in the red dress is sort of medium and the one
58 in the orange dress is a bit overweight. And if you look at her face he has shown
59 by a facial expression perhaps that she doesn't look that motivated. The red one
60 is more or less neutral in the facial expression and the green one has got a lovely
61 smile... the slender one. But in any case, we can't use that because level of
62 motivation is a hidden variable. We have so many of them in the social sciences,

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63 and we have to do a construct, you have to compose something that you can
64 measure... so we said we would like to be able to see inside the witches head...
65 but you can't, so the animation very nicely showed... opened the witches' head
66 and you look inside... and a question mark comes out. So the witch hasn't got a
67 neon sign on her forehead that says "I'm highly motivated" so you've got to
68 design a questionnaire that is a construct of motivation and uhm, you have a look
69 at what is it that motivates people in general. We said, ok we know the resources
70 they have in their work environment, and their work satisfaction... so then we
71 designed just four questions. Because a small pilot study (cough) pardon...
72 around uhm, these organizational resources, and work satisfaction... and you ask
73 the witch that question and then I hold up a placard with a one, two three, four,
74 and five. But first we explained that that is a five point scale, where one is, "I
75 strongly disagree" and five is "I strongly" oh sorry, 5 "is strongly agree" One is
76 "strongly disagree." And then each weight... each witch sorry... had a different
77 score. Then you add the four together and you find the average. So what
78 happened was that the most slender witch got the highest score for motivation, the
79 one in the middle weight got a medium level of motivation, and the heaviest witch
80 got the lowest motivation. We then say ok, if you plot the motivation level, the
81 score...the mean score against the weight of the witches... then you will get a
82 certain type of graph. We then show them, how to plot a graph, and at which axes
83 you put which variable, and then you join them up. And it basically boils down
84 to... the hypothesis we postulated at the start, that... the bigger the witches'
85 weight the lower her level of motivation was correct. So then you go on to tell
86 them it is a pilot study, you only selected three witches, you can't really
87 generalize your information, so it would be better to take three hundred witches,
88 to weigh all three hundred and to give them each a test on motivation

89

90 % Wonderful.

91

92 # So we introduced dependant and independent variables that way, and I
93 emphasized that the dependent variable is the one you measure. So it would be for

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94 example the weight, the weight of the witch would be the dependant variable...
95 and the level of motivation is also the one you measure. Uhm, but if you plot a
96 graph against the two, you get this inversely proportional graph. It's a rectangular
97 hyperbola.... And that's a test that the variables are inversely proportional, which
98 actually means it's got a correlation of close to minus one, a negative correlation.
99 (cough) And then I went on to show directly proportional and that was where we
100 used uhm, a guy with a t-shirt called Newton...and he was now Newton... and
101 when he pushed this hovercraft to eliminate friction, it floated on air. He pushed
102 this hovercraft with one Newton of force, then it would move away. Its speed
103 would increase... it accelerated. So we, we didn't define acceleration, we just
104 told them... acceleration is one centimeter per second squared, if the force is one
105 Newton. And if its two Newtons then they show that the hovercraft goes faster, at
106 three Newton still faster and four Newton still faster. Put it in a table... Force in
107 Newtons against acceleration in centimeters per second squared... as the force
108 gets bigger the acceleration gets bigger...they are directly proportional. If you
109 draw a graph of the one against the other and a straight line through the origin, so
110 that's how we do directly proportional. And then I also did Boyles law, in the
111 form of a scientist with a big gas measuring device, and as he increased the
112 pressure, the volume decreases, pressure gets bigger like a bicycle pump,

113

114 % Won... wonderful ideas if I can interrupt you there;

115

116 # Certainly;

117

118 % I just need to know, whose ideas were these?

119

120 # They came from me, they are my ideas. They certainly... I had read about them in
121 the literature, and they came from me, but even then, I could see as a teacher
122 when I did these, they worked very well, and yet, I've never thought of using it at
123 this level. Our students are notoriously not good at mathematics, and uhm... and
124 you cannot do advanced statistics with them... they don't really follow. So I had

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125 to try and design something, in a hope that... that this is going to catch their
126 attention and it will give them a better understanding of variables, inversely and
127 directly proportional... of graphs. This led me to the second thing which was
128 graphs - how to draw a bar graph, how to draw a histogram, how to draw a
129 polygon, what is a normal curve, what is a negatively skew what is positively
130 skew. That stuff... that one I think they are going to battle with, because
131 eventually the student has got to draw the graph him or herself. Uhm we have
132 given them an exercise... it's on cd, the solution is on there for them to have a
133 look at, but they need to do it first. I think there is a very exciting possibility, how
134 can one animate these various problems that we ask the students, in the solution
135 that you give them, because I think that can work very well.

136

137 % When did you start thinking about these ideas?

138

139 # You know, I mean, when I decided to put this thing online, and then I started, it
140 came to me really quite creatively I must say. I'm normally quite a creative guy,
141 but uhm, I, think it's when... I had to now do something with this course...
142 because I had to get the content online... and I had to make it unique and fresh
143 and easier for the student to understand perhaps. I'm not saying they are going to,
144 but I think the possibility... if they go through all of the things... you've got the
145 information guide which they must go through... they go to the cd... they go to
146 the application activities, they work through them... they've got discussions
147 which they work through, if they have done all of those things, I think they may
148 have quite a good idea of what is meant by these things. So outcomes I think,
149 have got a better chance of being realized than when I stand in class and I talk
150 about (inaudible) that, that really is the old pattern... it's perhaps the easy pattern
151 I think. This is not an easy pattern I am working in now, because the students are
152 going to ask you questions. They are going to get stuck, and they are going to get
153 frustrated, but nobody said learning is easy. You, you learn by sweating as well,
154 so it can be very frustrating. They say, I cant follow this, then you need to go read
155 a book or you need to go somewhere on the web, go and have a look... put in

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156 Newtons law under Google and see what they show you, it's amazing what you
157 can get. So I think the student that is innovative %, has got a lot going. That was
158 our second theme. The third theme, I put in, was- how to design questions,
159 because we are battling at masters level, where they, where they just couldn't
160 design elementary questions, so that, that was a whole theme, that has been put in
161 the information guide, and some of it on CD. Theme four, had to do with
162 measures of dispersion and I only looked at three, (cough) I looked at the mean,
163 the median and the mode and then tried to explain to them as as clear as possible
164 what is meant by standard deviation and variants. Uhm and I think we were quite
165 successful. So some of this is on the web, uhm, most of it is in the information
166 guide. Here lies a great challenge as well, because I do believe that we can design
167 a computer program somehow, where the student actually participates actively
168 with the program on the computer... He does the calculation... let's say he's got
169 to work out the mean. He actually does it, and then they do it from the computer
170 and he can go and look at the solution. So I think you can perhaps take them
171 almost like a program, step by step, through this, and I think it is a very good way
172 of learning basic statistics. Because one of the basic things in stats, is you must
173 have a good understanding of what is meant by the mean because they so often
174 work with that. (cough). Then after theme four, we went on to theme five and we
175 have battled for years with uhm, proposals, and with mini dissertations. It's a big
176 frustration to all of us. So I thought ok, let me see if I can design something that
177 they do exactly like they do in the mini dissertations...So I set up a chapter one,
178 with, the normal things you get... There is a background and contextualization to
179 the problem... they have the problem statement... there's the aim of the
180 research... there is the methodology... there's the clarification of concepts... all
181 in chapter one. That's been put on the web. What we did is... we took a video
182 camera, and I had to ad lib while they showed this mind map that I made of the
183 research process. Uhm, and then I talk them through this whole thing... chapter
184 one, chapter two is mostly literature study, where they clarify concepts, where
185 they can see where they can measure the constructs, uhm, and all of that. And
186 then chapter three is more methodological. They can say ok, we have to design

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187 some questions and they have to tell us what quantitative research is, what
188 reliability, what validity is. Basically they must know all those things. They must
189 go read about it, it's probably in the information guide, but if it isn't, they can go
190 to the web and find that information.

191

192 % This content is all very exciting, if I can interrupt you there;

193

194 # Ja;

195

196 % How does this differ from what you have done before, you see, I can take you
197 back, you said you are a very creative guy, so I assume you were creative in the
198 past, am I correct in saying that?

199

200 # I try to be creative %, but I've tried many things before. Uhm, I think what... the
201 dimension to me that is exciting... and that we have never had before is the
202 interaction with computer animation. To me that is something unique, also, that
203 the student, I think, for the first time is really doing the work... Not me! In the
204 past I got so used to it... I may be creative, but I'm so used to playing a central
205 role, that it is virtually impossible to divorce yourself from that. So everything
206 you think of is really in terms of that. So you are doing a lot of different things,
207 but not actually... they're the same.

208

209 For the first time now, the students' got to do that stuff, he's got to go through that
210 and then he comes back to you and he says, I do, I don't... or he's got to do the
211 application activity. And then you can see... So, this to me is more, uhm,
212 ...you're not standing in front, you're facilitating.. and I think this OBE had one
213 thing working for it...and I am not a fan of OBE... but one thing they have got
214 going for them, is this methodology, because here you are forcing the child
215 actually away from you. You are forcing them to do, the learner to do his own
216 thinking and his own work... and it's frustrating... you must make no mistake.
217 Uhm, and you are just there to guide and to help, and to assist. And of course you

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218 are going to learn much more, because the students are going to come to you and
219 say, "We don't quite understand this", and then you can see where there was a
220 design weakness perhaps. Maybe you will have to re-do the whole thing, but we
221 are already picking up small little things. So there is big improvement that's on
222 the way. Now eventually in that theme five, in any case, they must go and design
223 five questions for us. Those five questions they must now take in the form of a
224 questionnaire, with independent variables, they must go out to twenty, thirty
225 people I think... thirty respondents. So it's a very small study, they must get their
226 answers, they must work out the mean, the mode, the median, all of that, and they
227 must say what the conclusion is. They must draw a graph, a bar graph, of the
228 results and they must apply as much of what they have learned in that course to
229 this. It's really a research essay but in a practical form, so it is not just writing.
230 They actually get to do practical research on a very small scale, but at least...
231 before... we have never done this. You say go and write the essay, then you mark
232 and you sign it, and that is what I see so often... Most people, most lecturers in
233 Education... that's what they do. There's very little practical... in our subject yes
234 the emphasis should be go out and design a question... go do a qualitative
235 survey... do focus groups... but I find people can talk about it easy... but doing...
236 that's the important part. And we never really get our students to do the things...
237 so here we are forcing them... to go and do it. It's a lot more marking, but I think
238 it may be a... I can't say as yet... I'll have to have gone through for a year,
239 whether I find it to be better, but to me, it was exciting. It's in the last ten years I
240 think it's the most exciting thing I have done... and I can't really tell you why, but
241 it's something that excites me, something I got hooked on. And you just can't
242 leave it, you want to finish it, so I will put that before a lot of other things... I
243 would push meetings one side to do the web just to get it correct.

244

245 % Now that's the kind of stuff I'd like to hear, uhm, if you ever do find out what
246 made it so exciting, you must let me know, because that, that is actually what I am
247 looking for. I just need to ask you now, how much pedagogy does one need to
248 teach in this, in this way?

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249

250 # When you say pedagogy, pedagogy, what do you mean %? Enlighten me a little
251 bit?

252

253 % Well, how, how much do you have to know about teaching, and do you have to
254 change your ways of teaching or your ways of thinking about teaching?

255

256 # %, I think it is always a good thing to know something about teaching. It's
257 important to know how people live, but if you are an observant person I think you
258 will of yourself, and you reflect about your lesson, you can quickly see this
259 worked or didn't work and I can improve it. So we need all of us, probably we do
260 reflect... but I wonder how many of us really change our lesson approach that
261 much... and I think here you have no alternative, you uhm, you are going to get
262 all of these guys going online, and they are going to come back to you and they
263 are going to give you different comments. So this will lead to better soul
264 searching... which is always a good thing. So yes, it is good to know about how
265 people live, and and teaching methodology. Uhm I suppose that I am lucky that I
266 came out of the science world because we always use practical examples and we
267 use experiments to try and get people involved and I do believe that the best way
268 of learning is to get involved. That is why I like the computer, I am involved, I
269 have got to go and do the thing myself, I can't give it to somebody else and that's
270 the way I learn. Other people may learn differently, but for me, that's a very good
271 way of learning, and sometimes I get an "a-ha" experience. Most of the times
272 learning comes gradually, I don't know why I have learned it, I just do realize I
273 understand it better now. And I think I do understand my quantitative research
274 better now... after having designed this... on the web... I've been forced to think
275 deeply and creatively about concepts that before... we just accepted... and we
276 didn't really think about it, ... now that was a great learning experience.

277

278 % Can I take it from what you said that you believe you have improved your
279 teaching, are you a better teacher now?

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280

281 # I will always strive to be a better teacher, till the day I pass away. I will be very
282 naïve to believe I am better I suppose but wouldn't it be horrible to think that you
283 are not better? So I would like to think yes... and I will keep on trying to improve
284 myself. I'm never going to sit back and say I know sufficient, and therefore I am
285 not going to learn anything new.

286

287 % If I can take you back to what you said earlier, you, you said a few times, you had
288 to do this, you had to put it online, uhm could you elaborate a bit more on that?

289

290 # I suppose anybody can believe that if you can procrastinate about it... when I say
291 I had to, uhm, to me that was very important because I know had I not done this...
292 I wouldn't have gone through this whole experience. It would have just been like
293 it was in the past. So the fact that I said no I would do the course with you, and
294 they now bought me in, and they were going to help me... and it helps a lot,
295 because a lot of the stuff that you put on the web to me is frustrating, uhm, and
296 because it takes a lot of your time you eventually shelve it. You don't have the
297 time, so they, they helped a lot and they could leave me more to the creative part
298 of the thinking, and doing the assessment, and seeing now if a guy answered the
299 question this way... why would he have answered it wrongly? So for me to have
300 to design an answer in multiple choice, I know there are distractors, and I know
301 there is one right answer. To give them the right answer is easy, but to go and say
302 why they got the distractor is not so easy. So that also forces you to think about
303 the question you asked very carefully. Uhm, so all of that helped a lot, but when I
304 say you know I had to do it, there is something inside me that impelled me...I
305 suppose that said you've just got to get it done now, do it properly, this is, and of
306 course, going through this, I, could see, this is something that is going to work.
307 And if you get feedback like that, not directly from other people, because other
308 people don't give you feedback. The only feedback I can get is from what I see,
309 with the computer... and people will say yes, you know, it looks nice. And then
310 some will look at the three witches and be fascinated, but they never looked at the

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311 concept. That bothers me! They will look and they will say “look at that picture,
312 it’s witty, it’s nice, uh, I follow”, so C looked at a bit and I could see he could
313 grasp the concept, and he is not great at mathematics but yet he could follow. So,
314 that’s what I am hoping for, that, that because I tried to make it simple, that the
315 people will grasp the concepts behind it.

316

317 % I was just concerned that when you said “had to”, you meant that you were forced
318 to, it seems now it’s more of an intrinsic thing, you...

319

320 # Well for me personally %, it is an intrinsic thing, but when you say forced, there
321 are most definitely micro political forces working in the university. I heard last
322 night for example that the Dean was very thrilled because I had put my course
323 online... but I was the only one. And the message I got is, what can I do to get
324 other people to put it online? So I think there is this type of force... make no
325 mistake... I see it from the Head of Department who... I can’t say is forcing me,
326 but does encourage me tremendously. But there is a reason behind this
327 encouragement, and I think the reason may be to get other people online, because
328 %, our biggest stumbling block is this fear... of computers, of going online, and
329 maybe the best way is to force you... because then you... you just got to do it.
330 There’s no argument and while you give people chances they are gonna
331 procrastinate and they are gonna pull out. They are gonna pull out every time,
332 and that’s why I thought let me stop this procrastinating. If I say to them I want to
333 go online, and I take all the trouble to go online I am now forced into this... and
334 uh, it causes dissonance in you as a person, but you can see there’s progress, I can
335 see the modules look great, as I go through it, uhm, it makes sense, it all comes
336 together... in quite a nice way. So I can’t say there is no force... I, there definitely
337 is powers, ...power is everywhere on the micro political front. It’s there, and uhm,
338 it seems to me the university also bears the cost... uhm, the department doesn’t
339 have to bear that so if we go online they will bear the cost. Uhm, but I can’t say
340 anything more than that except that I can see for me it was a good thing... so I’m
341 not against saying people must do it, but you cannot coerce... eventually it’s not

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342 gonna work. But I coerced myself quite honestly. But I prefer that way because I
343 am a professional person. I don't need people to coerce me, so if I decide on my
344 own, I am going to do this thing, that is forcing myself.. correct, but uhm, I think
345 that's a mature type of coercion.

346

347 % Do you think that other people in the Faculty has to reach that level of maturity
348 you've just spoken about, and what is that level of maturity?

349

350 # %, that is a very difficult question. I don't know... what I do know, is if people
351 see what I have done here, and uhm, they do get the CD and they could look at
352 it... I think its going to stimulate them, to do the right thing... because it is
353 amazing what you can do... and I never thought, especially the animated part
354 could be that exciting. So to me, it's greatly exciting. I certainly hope that it is
355 going to excite other people. I cant guarantee that... it's going to excite some
356 people, and in any case quantitative research I'm sad to say is dwindling and I
357 think the reason behind that is because people today are not... haven't got the
358 necessary mathematical background. Their stats is pretty poor, therefore,
359 somehow we have to devise easier ways for them to get on board... that they can
360 see this is not such a difficult thing... *ek kan hom baas raak*.

361

362 % And do you have any plans for the future?

363

364 # % yes, I just want to take this course for this year and go through it and, and
365 make a lot of changes... where we need to make changes they must be made. I
366 would like to introduce quite a lot more animation. I would like to go on to the
367 web more, for... people to go and do their own exercises because if you give them
368 a website they can go in... and there is some very nice questions on the web, so
369 they can see do I understand what is meant by (inaudible) ... ratio scale, all of
370 those... they can go test themselves and, and again we need to force them to do
371 that. So you need to set a quiz, and they must give it back to you, and you can
372 give them a mark because otherwise they are not going to do it. Uhm, so that

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373 feedback I get I would, I would like to have a look at that... Then I think this, to
374 me it is such an exciting thing, I've never seen it anywhere before... and I think
375 this, this needs to be explored.. It's the sort of thing we go to a conference for...
376 and then of course there is a lot of research we can now do on this... we can do
377 pre tests with the lecturers and post tests, you can do the same with the students,
378 so a lot of very exciting research can be done, and at least it's something new as
379 far as learning is concerned.

380

381 % Well thank you so much for that, if I may just ask you, if at any time in the future,
382 if you can think of anything else you'd like to add, contact me and let me know;

383

384 # I'll do that %.

385

386 % And, once I've listened to this recording one, one more time or so, if I may come
387 back to you and do a bit of stimulated recall, ask you a few other questions
388 perhaps?

389

390 # You are welcome %. Good luck with your research, congratulations.

391

392 % Thanks very much, it's now 10.36

APPENDIX E: Mark's interview

1 12.44 17th of March

2

3 % Thank you for being here today and for giving me your time, I have given you a
4 brief introduction to the study and you are a person who has taken a little bit to e
5 learning and you have dabbled in it and experimented a bit here and there. So
6 today I would just like you to tell me yours story how you got involved in e
7 learning and how you and your colleagues are experiencing e learning at the
8 moment.

9

10 # Well I think the first thing is I think that you probably know that I don't know
11 about 4 or 5 years ago when the first Edulink started up at the university... a
12 number of people at our faculty or in our department I think it was H and the like
13 started up with one of their courses and subsequently I took the ed education 2A
14 course and try tried to make it a web supported course, at that stage being fairly
15 uninformed about about the whole thing ah one looked at applying uh the
16 technology, mainly the web based learning, web based support of the uh of the
17 edulink... to in some other way, I think support us as lecturers and the learners
18 with regard to the continuous or continually more limited time that we got to
19 interact with students. The whole idea behind it was to to to deepen the the
20 contact to try and get ahm for instance in a discussion forum or in some other
21 forum to try and get more students to participate where as in a class where you get
22 where you saw them for an hour or a bit we couldn't get every student responding
23 to certain issues that was the main kind of idea behind it. What we subsequently
24 then did in the beginning is we probably made the the cardinal error taking the
25 whole study guide and replacing or just copying it on to the web which was at that
26 point ah the sort of kind of thing that most of us did ahm we overloaded I think
27 the students using that kind of technology ahm and basically the idea at the first
28 couple of things that we did was was related to interaction and ah collaboration of
29 students ah aiming towards a kind of constructivist learning scenario where
30 students could interact more with themselves than to interact with us ahm put
31 their ideas on paper etc that was the main idea. Ah, what, what made it difficult

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32 to work I think was the fact that we overloaded the whole system and overloaded
33 the students... cause there were a number of things that we did for instance ahm
34 instead of... or students would send me their assignments we have to print them
35 out and then mark the printed out stuff because we didn't make use of any quizzes
36 and that kind of thing at that stage... so we were duplicating things that students
37 could have done they could have had it in their hard copies and we could have
38 marked them. So it was kind of saying to the student do this extra bit on the web
39 but you could do it just just as well by handing it in. So I don't think we really
40 made or got to the aims that we really really wanted to. Subsequently the next
41 year we made it even more difficult... cause what we then did is we overloaded
42 the system with links to different web sites that the students had to go and and
43 visit and get more information, to share the information, to be able to use the the
44 computer to access information etc but still keeping much of the the the old or the
45 first attempt in place of getting more interaction etc. That overloaded I think the
46 the the question the whole issue of the edulink and the support that we had one of
47 the things that we we did we experience is time wise it was very difficult to give
48 adequate ah response to all of these people not even with with good tutors or with
49 ample tutor time, it was just not possible. Ahm what it did do on the positive side
50 which I then well I ah tell you a little bit later. I then took on took full forward
51 sort of thing that I am using now is the fact that there was there was the
52 opportunity to to ah communicate with students at different levels and my
53 perception was that many students started to use it as a communication tool ah
54 which was absolutely necessary. A lot of problems that we previously picked up
55 ah for instance was students that not handing in assignments or what ever ah that
56 we used to pick up late in the semester now were picked up very early and we
57 could we could sort of accommodate those, so there was some positives as well.
58 Ahm one of the things that I think that we very very early ahm came to realize
59 was the fact that ahm what we do here at the office should not be the norm ahm. I
60 had the experience this week again of trying to go into into a site from my home I
61 was working at home... its heck of a difficult for certain instances depending on
62 what server you got what what kind of computer you have to get access to ah

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63 internet access even from the homes if you don't have a very good ah ah provider
64 very quick broad band and whatever ah it is very difficult to access sites so these
65 are the common sense and I think we came to realize. Ahm then I basically went
66 on sabbatical and I was not involved in that course... what happened there after...
67 I am not sure what happened to the 2A course I know that subsequently that 2A
68 course first of all went completely sort off on line ah web web learning or e
69 learning or what even you want to call it and then then had a dramatic change
70 again to something very similar to the first implementation over to that particular
71 module or course, and now I think there is nothing on the web for that particular
72 course so its its now a full circle, and I think it has to do with with probably some
73 of the things that you you indicated earlier on in your, in your introduction, is that
74 people don't really understand what e learning is. I personally think that I need to
75 get a lot more information, I'll come to that just a little bit later on, as far as
76 exactly what e learning is, and what it is that makes it work, or doesn't make it
77 work umm, because its not our field of expertise, but what I took forward then,
78 was I looked at this and I said to myself, what was positive about this was, that...
79 if I got to deep, deep learning, if I wanted people to go and be critical and
80 analytical and look at five or six different sources on a certain, certain topic, it
81 seemed to me as if though that kind of learning uhm, at this point in time with,
82 with the bigger groups we had and with all the problems we had on campus and
83 access to computers, I started looking at the post graduated people, and I
84 subsequently went to the point of, of, designing my interface of the students as
85 only a communication tool and I think the sites that I thought would enhance their
86 learning. So I got rid of a lot of the stuff like the study guide, and information,
87 whatever other information umm, three or four or five six legs that I put on for
88 instance in the 2B web last year, umm, and I took away the whole thing of the
89 discussion forum, umm, and replaced, not actually the discussion forum, they still
90 have the discussion, they have the chatroom or whatever we wanna call it, a
91 general chat where everybody could see what they were doing, but assignments
92 or, or umm, what do you call it? Or whatever umm, messages that they send to
93 me, I made use only of the e mail function so that it could be private, I didn't want

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94 students to start copying one another's assignments and that kind of thing which
95 was some of the problems we had previously, at the undergraduate level, umm, I
96 found, and I did this as optional, I didn't make it a compulsory issue, I made it
97 optional, umm, at the honors degree level. What I found, is that we had a similar
98 scenario to, I'm gonna call it normal teaching for the sake of our discussion,
99 ...teaching, teaching and learning that was, that had nothing to do with the web, in
100 other words, I go into, face to face contact with the students, uhm, they've got
101 hard copies and that I, I very soon realized that the same pattern emerged and
102 that's that the good student, the one that really wanted to learn according to my
103 perception uhm, those are the people that make contact with me, those are the
104 people that went to the sites, those are the people that got more information, those
105 are the people that gave in enhanced assignments. So even though it was there,
106 and I made this non compulsory, I got the same kind of thing, now that may be,
107 may be a point of issue that we need to look at, the fact that it's optional, therefore,
108 who's gonna use it and who ever's not gonna use it or whatever, uhm, ...that kind
109 of approach to using the web to support my learning or what we have been talking
110 about, that's what I think at this point in time, I'd probably be doing in the future.
111 What I probably will also be doing in the future is to get rid of this this, complete
112 sort of uhm, what do we call it, this this voluntary issue uhm, in the sense that I' I,
113 will probably be putting something on the into the courses that will force the
114 students to go to certain sites that I think are important, so now there will be some
115 things and checks and balances coming in to make sure, but I think one of the, the
116 major issues that I still have is that looking at the demographics of the people that
117 I teach, sixty percent I think of them will struggle... because they might not have
118 the technology at this point in time, so I'm still of the opinion that if it's not
119 something that is done throughout the whole faculty, I can not force it down on
120 the students and say: "...You will..." If it's, if it's something I do in one course,
121 and in one or two modules and three or four other people do in another module,
122 uhm, then the students will very quickly say: "...Ya but, it's not expected of us all
123 the way..." But if we design the courses with a kind of compulsory e learning
124 component to it, which the university multi modal uhm, policy actually propagate,

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125 actually propagates, then it means that I can start enforcing that. At this point in
126 time I don't think that I can really enforce it because it's not been a faculty
127 initiative yet, It hasn't been a put down in the faculty. With regard to the other
128 questions of, of e learning... now % if I understand it correctly, uhm, things like
129 the CD roms, I haven't started utilizing yet, uhm, uhm ...there are a number of
130 other things that you know more about that I don't know, and I think personally
131 that one of the things that worries me about e learning, is people are not using as I
132 said in the beginning because we don't understand what it is, we don't understand
133 the epistemologies and methodologies etc. because in many cases it's not our field
134 of expertise. So, I would, I would like to see uhm, more, more development for
135 the staff regarding that, uh, not at the highest level, but for instance the e mail that
136 D sent a while ago, that he said that he will come and help us set up our, our
137 mailboxes, or our diaries. To me, that should be, if if we gonna really use
138 technology to support us, that should be one of the first things we do as a faculty,
139 boom, it's there, it's in place, uhm, again it doesn't help five or six of us having
140 that, and nobody else react, or nobody else knows what's going on, so I've got
141 this thing about uhm, upskilling everybody, to an extent, not all of us need to be
142 computer scientists or computer educational specialists, but the basic things to
143 make e learning more accessible even to us, searching the web, I know we had
144 somebody in the in the library, but it's often very easy to get all of us together to
145 work hands on with those kind of things, so uhm, uhm, ...my perception is that,
146 there, there are people in the faculty, quite a number of people in the faculty that
147 don't stick their hands in there because they don't know how, they don't know
148 what it is, myself included, I, I've got a smattering, I've got some practical
149 experience in trying out the tools, but I don't know what it is, and you know, see,
150 see what I'm saying, I don't think everybody or anybody has the time or energy to
151 really get stuck into that field because it's a field on its own, uhm, what, what I do
152 think, uhm, with regard to e learning, uhm, is that if, if people want to survive in
153 the technological era that we are in, we need to be able to, to use the electronic
154 medium in, I mean, I think, I think the cd roms are fairly easy, if you have a very
155 good CD ROM, you got a good computer, most people can access a cd rom and

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156 work with it, because the cd roms, their well designed, and well presented, it takes
157 you through step by step as many of these these are, but I think it boils down to,
158 when you have to take that, that, that computer over there, and you have to go into
159 certain sites and find out certain information about things, to scan the information,
160 what are, what are the reasons why you are doing it, uhm, I think people might,
161 might become so, so overloaded, because they'll, they'll put in something like
162 inclusive education and get five hundred sites, and go to all five hundred. How do
163 they go about or what are the reasons why they shouldn't go to all five hundred, to
164 which should they go, what are the underlying philosophies, telling them how to
165 go about this, what, and when, when do they stop kind of thing, and I think this
166 all relates to what you are saying, and I, my personal opinion is that, that, if you
167 don't know how, the people are not going to use it properly. We use it, but to
168 what extent? What are the protocols, when is what you get on the web, or through,
169 through the electronic medium, when is it good, when is it bad, who tells you it's
170 good, who tells you it's bad? How do you find out these things? I'm looking at the
171 very practical riddle, I don't know.

172

173 % Uhm, How much pedagogy do you think one needs to teach in this way? Don't
174 you think it lies, it lies with the, with the educator to determine what you just
175 spoken about now?

176

177 # No, I, I think, I think you need, you need a basic idea, not a basic idea, you need
178 your own conception of what your, what your, what it is, what your pedagogy is
179 that you going to attempt to put in place, but, uhm, ...not all people can take what
180 the regard is, good pedagogy for them, and use the e learning to support it,
181 because I don't think that they really know what the underlying, uhm, I normally
182 use it philosophies but what the, what the things are, that that e learning uhm, that
183 supports e learning, in other words, what what are the pedagogies that, that
184 supports e learning or on which e learning is based, what those things are, I think
185 if they know that, personally I think that it's very, very easy for them then to take
186 their own pedagogy and to look at this pedagogy and to say but that's the way I

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187 can, I can, I can mix, mix and match them, I think because they don't know how
188 it's done, they think it only means click and go into the web. Because they don't
189 know how I think it is difficult for them to put it place now I include myself in
190 that. I think, what I have been doing is, is I've been doing it on pure intuition and
191 saying, well, I'd like the students to share ideas and to come to an understanding
192 for arguments sake of the diversity that we find in classrooms and how to treat
193 diversity in practice, so I'm going to send them to all the American sites, they get
194 all the American sites' information, but is not South African... you see what I'm
195 saying, so there's a gap, there's a gap, and I think the gap lies in the fact that, that,
196 that, uhm, and I don't mean uhm, ...high level knowledge, but a basic
197 understanding of what the philosophies underpinning this is. And, and I think by
198 starting of with the Education 2A uhm, module, the fact that it's gone full circle in
199 about five years tells me that something that people don't know certain things and
200 that's why, that's why it's not gaining momentum, it's loosing momentum,
201 something's wrong and, and you, you know from, from, from your own
202 experience there are number off courses that have done this irrespective if this
203 was good or bad, and all of a sudden they've tapered off and tapered off, and
204 they've become less and less, now I include some of my courses in there as well,
205 because some of the things that I tried to do didn't work, and I don't know why,
206 so I left it, they were too difficult to manage because, because I didn't know how,
207 and, and in all honesty, uhm, our support from, from SOLA also don't know how,
208 because they, they look at it from a technical point of view. It doesn't, doesn't
209 matter whether they say they, they educationers, they, their not in the education
210 field, they don't work with the students at ground level. It's very easy to design it,
211 but, but we have an idea of what our students need and don't need, and that's why
212 I think an initiative such as this should be, it should be a Faculty-driven kind of
213 development, I don't know?

214

215 % You spoke earlier about your, your ideas and how you came to do things, how did
216 you come up with those ideas, did you or did you come up with them or did
217 someone else come up with them, how did you...?

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218

219 # The ideas of what I did on, on the web,

220

221 % All your initial endeavors for example,

222

223 # Oh the initial ones?

224

225 % Mmm

226

227 # I think the initial ones became, came about uhm, through realizing, I mean not
228 realizing, through the fact that we are using the computers more and more and
229 because we access information on the web, whether we do it well or not that's not
230 the point, but we were using the web, and we were saying to ourselves again, I say
231 that the idea came up saying to myself, I'm not seeing my students enough, uhm, I
232 still believe, I don't believe, I don't believe in lecturing, but I believe in contact.
233 Education in my opinion, first and foremost, is the interaction between people, if
234 whether it's via that medium, or via the the normal human medium, it doesn't
235 matter, but if I don't have enough interaction time with my student, its very
236 difficult for me to guide them, to help them, for them to exchange ideas with me
237 and with the other students, so my initial, my initial involvement in this was
238 actually motivated, motivated by the fact of saying, couldn't this help me to get
239 better or greater interaction because the time is getting more limited. That's the
240 one thing, the other thing is that D was appointed here, and I started speaking to
241 D, and many of the basic ideas that I have, and some of the basic philosophies I
242 have about e learning comes from discussions with him, I, I'd always say to the
243 people uhm, if we talk about this, I always say to them, uhm , it's good and fine,
244 and D said this to me early on when we talked about this... years ago, and he said
245 to me, you must be able to tell me what the e learning, or the edulink or the
246 whatever adds, what does it plus, what plus does it give to your course? If it does
247 exactly the same thing as a hardcopy can do, then why are you using it? And I
248 think that has influenced me to look atsaying, what have I got on edulink, is it

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249 really a plus factor, or am I doing the same thing in hardcopy, what am I, what
250 can I do with that, with the, with the e learning, that I, that I'm not doing in class
251 that can add to what I'm not doing in class, and to me that is the basic principle,
252 uhm, I don't know enough about the e learning probably, to really plus, to really
253 put the plus factor into it, but I believe that's what it should be and that's why
254 many people start off and use it, and uhm, and I think that's why it loses the
255 momentum, because they, they, at some other stage their saying, we are
256 duplicating our work, we are making it more and, and, and I think at the back of
257 their minds they are saying "... but we are not adding anything.." We are doing,
258 here on, on, on the computer, what we could do on class or in written form as
259 well, so, let's get rid of the difficulty with students saying, I sent it but it never
260 came over, it was never received, I can't get access I got, all these administrative
261 issues of the computer, the the I think the lecturers get to a point where they say
262 "... let's rather cut out those nonsense things, and then we just do it in the old way
263 it's less hassle..." And I think it boils down again to the fact that people not really
264 knowing what it adds, or what is the value that it can add, because they don't
265 know enough about it or going through emotions and saying well, uhm, it means I
266 can you know, I can, I can use this thing, and that's it, uhm, ...and if you haven't
267 used it in my opinion in practice and haven't sat in front of it week-by-week, day
268 by day, looking at what students are writing, I don't think that you can really
269 understand how much time it takes, it is time consuming, but in my opinion it's, it
270 adds a certain level of, of learning, that, that's uhm, that in our current model, at
271 this university, cannot be reached if you don't use that, and I think, it's, it is going
272 to become more and more applicable to the, the postgraduate students, uhm,
273 probably due to the numbers, certain groups are very big I know, but most groups
274 are small, so I think that could probably be an aspect I'm not sure.

275

276 % Well, it's been good to hear your story, uhm, I wonder if you can think of
277 anything else you would like to add before we close off?

278

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279 # I just, I just really think that if, if uhm, ...look I think WEBCT, Edulink, is here to
280 stay because there are a number of people at the university who's jobs depends on
281 it. Let's be very honest about it, I don't know whether it's, I really don't know
282 whether it's doing what it's supposed to be doing, uhm, I would really like to see
283 the staff more informed at, at a low level, even if it means doing a staff
284 development course and module, uhm, presented to all staff members on, what e
285 learning really is, and how to go about it ... at a very basic level, uhm, and I
286 believe that if we don't do that, there's a group, there will be a group of people,
287 that understand e learning and how to implement it properly, they'll be doing it,
288 and there will be a group of people who will basically say they don't want to do it
289 it wastes my time, it increases my workload, uhm, and I, I think that, if we really
290 want to move the university's vision of a multi modal policy, then the faculty
291 should be looking at, at uhm, doing something more than just saying, we have the
292 support of SOLA, I say again I like the people and I have no problem with the
293 people, but they don't, they're not in our situation, and don't know our students,
294 they don't know what the students are like, uhm, ...it's very easy to look at, at, at
295 a program and design something for it, and to say well, this is a nice program, you
296 wanna get to that outcome, that's gonna work, and that's, that's the theory. It's
297 very easy to design a CD ROM and say that's how it's gonna work, but we know
298 what our students are like, and the whole, this this discussion next week about the
299 sociology of learning, somebody said to me when I was in Australia, he said to me
300 one of the gentlemen said, his, his, he got rid of putting his, study guides on the
301 web because the whole question of the, the sociology of learning means, when do
302 I learn the best, for a distance learner he was talking distance learning, he said
303 because I give a hardcopy to the student, the student can sit with his family and he
304 can still do his work, but he is looking at the paper, but there is a social interaction
305 in his family, he was talking about the distance learning in Australia and he said
306 one of the worst things that the feedback that they got was if I leave everything on
307 the web, the students don't do as well because they have to sit in front of the
308 computer and they haven't got time for their families. I can have the hardcopy, sit
309 and watch a bit of rugby and talk to my kids and still do a bit of work, if I have

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310 the hard copy. So we, we need to look at who we are teaching, what kind of
311 students we have, and then I think we need to, to take what, what can support
312 them via e learning, but I, ...last point, is I think that and this, this relates mostly
313 to I think my own feeling, is I just need a little bit more information. I don't have
314 the time to become uhm, knowledgeable about the field, but I need a couple of
315 pointers to say remember this, remember that, remember this, so that you could
316 start implementing anew because uhm, I think the people are, uhm, I know one or
317 two people who are using it, but at this point in time I think there are less people
318 using it uhm, or ready to use it then there should be.

319

320 % Well, thank you for that, and if you come up with anything else that you would
321 like to add, please feel free to contact me again and we'll chat again.

322 # Mmm (agreeing)

323 % thank you for your time.

324 # It was a pleasure.

325 % It is now 13.11.

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- 1 % thirteenth of September.
- 2 @ And it is ten past one. Thank you once again for ... very very much for being
3 here. I appreciate your being here. I know it has taken a lot of your time. I will
4 try to be as straightforward as possible and um hopefully we will both enjoy
5 this.
- 6 % I think we will.
- 7 @ Um I would like to also say that if at any time you feel that you would like to
8 withdraw from this conversation or if you have any objections please let me
9 know. Um, also please note that I will not be using your name, um I will be
10 using a pseudonym. Everything will be confidential and um everything will be
11 done according to the ethical policy of the University.
- 12 % I take that %, thank you so much.
- 13 @ Um, you have read the err consent form that we gave you a while back, err for
14 the - for the study and you know now that I am going to be asking you a few
15 questions about your experiences with e-learning -
- 16 % mmm hmm,
- 17 @ ... at RAU.
- 18 % mmm hmm.
- 19 @ So let's get going straight away, if I may ask you: how have you and your
20 colleagues been experiencing e-learning?
- 21 % It's been tough.
- 22 @ [Laughs] Could you elaborate?
- 23 % [Laughs] Yeh yeh certainly. It's been really very tough, because um, myself I
24 just jumped into it because... it fascinated me. I would have to admit, more
25 from a theoretical point of view, I was more interested in um e-learning as - as
26 a way of trying to understand human learning with – with technology, than
27 actually teaching the students – which is perhaps not the most honourable way
28 to go but that is the truth. I jumped into Education 2A because I thought “Ah!
29 Here's an opportunity to see how a-hundred-and-twenty-seven students learn
30 with the help or through this technology. So my motivation wasn't um that -
31 that of the University and now I must support the University in its e-learning
32 ventures. I was selfishly interested in knowledge, and production of new
33 knowledge. And I must say the experience has been tough because of – it's not
34 easy to communicate and to monitor – to communicate with students and to

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35 monitor their progress. It just takes up so much time, because you actually
36 have to pay individual attention to students' responses, and the number of
37 hours per week that it took me in those six months – I will never forget how
38 hard I worked. It was u-unbelievable. Perhaps I did too much, but it was hard.
39 So from the point of view of the investment in time it's tough. It's also tough
40 because I was not prepared for the different type of instructional design. I – I
41 really believed that, um, I could transfer m-my – my knowledge of pedagogy
42 just like that ...

43 @ mmm ... [laughs]

44 % [Laughs] ... straight! I could convert it from paper to electronics without a
45 problem. And that's what I did and that was problematic, so that was really
46 really hard for me. I -I - I'm-I can tell you the story of how I sat with my er
47 study guide, neatly prepared in sections, very linear with specific outcomes,
48 envisaged outcomes, and activities, and readings, and self-assessment with
49 criteria and conclusions of each class – I really tried my utmost to take that
50 and transfer it directly to – to e-learning, and it didn't work. It was very very
51 hard. Now I was saying, um, I really tried to transfer it directly and some of
52 it worked, simply because er it was quite a creative design already, the - the -
53 the learning guide as it existed, because you may remember that the main
54 learning artefact that the students had to make after the completion of the
55 course was a metaphor for learning and that it had to be a multimedia
56 metaphor for - of somewhere of the type. So it was really, um, really linked to
57 my general epistemology and that is that we must learn and work together, and
58 that um, w-what – what one learns is what one does and thinks about. So, er, it
59 wasn't bad from that point of view, but from the point of view of working with
60 – with the machine – the technology itself, that was a nightmare. It was really
61 really hard. I – um – it put me off it for a while I have to say. I then - the
62 second course I did I – I-I streamlined it and minimised it a little bit and
63 thought now I can't go all out again. I must try and do blended learning in
64 which the e-learning component is much smaller. And I think that's the way to
65 go forward for myself. I have at the moment the opportunity perhaps to work
66 with the new so-called 'African Virtual University' that's going to be run by
67 our/a colleague in Nairobi. And I'm wondering whether I must put my head
68 into it because it scares me to think that I now have to expose myself to the

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69 continent of Africa, that I'm going to see these students and that I'll have to sit
70 in front of the computer day and night talking to them – that – that's - that's
71 too much. I think that – that's the part that – that puts me off totally and I think
72 there we need guidance, we need – we need people to educate us, er-in, on
73 how to – to make this blended thing work. Because at the moment it's like er,
74 er a funny stew, you know we just throw everything into the pot and we cook
75 and stir. But I think there needs to be er good research that helps us to
76 understand it. I mean we look – look at the computer-based education master's
77 programme, which I thought is actually ... an online programme. But it isn't!
78 All of the students in that class say to me there's no way they could have done
79 it online. Because they - they actually - the online is an adjunct for them. The
80 fact that they learn software and that they learn about learning theories and so-
81 on, face-to-face, is much more important for them and they couldn't do it
82 online, they've all said so, every single one of them. So e-learning for me is -
83 has been a scary experience. And in this Faculty, with our numbers of
84 students, I would only do it in master's programmes, or in small undergraduate
85 programmes. I wouldn't do it in the BED Honours, that's too big, because my
86 BED Honours is always hundreds and hundreds of students. Yah, so it's – it's
87 been very *pleasant* I have to say, because my – my initial drive, where I
88 engaged with this, was satisfied - or is being satisfied - slowly but surely – that
89 is that I'm beginning to learn about er the types of learning er and the
90 pedagogy and how this technology is just the best route for working in a – in
91 um – I suppose I have to say constructivist way, although the cliché is [laughs]
92 beginning to bother me a lot. But giving people an opportunity to work up
93 their own pathways, to navigate their learning pathways, to find surprises on
94 the Web, and also to be guided while doing that. So, um, that – that has been
95 very satisfying, that I could actually now, for myself, see how people's minds
96 are changing. The way they learn, they way they work, the way they respond.
97 That's very *very* exciting I have to say. So, although it's been tough, I've
98 gotten something out of it from an academic scholarly point of view. And
99 from a purely pedagogical teaching point of view I think I've – what I've got
100 out of it which is most precious is that one can combine face-to-face with e-
101 learning and um that's a nice recipe. I like that.

102 @ Mmm.

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103 % Mmm, and my colleagues. I can't speak on behalf of them. I think most of us
104 really don't know enough, and er the fact is I don't think one can learn unless
105 you do it, so there's no way you can read about it, or go to workshops about it.
106 You have to actually do it to learn, but I think – if I may add this – I think you
107 need to do this with a mentor – you can't do this on your own, you need
108 somebody at the side, you need somebody who's a Web expert - like you, and
109 an educational e-learning expert, who can actually guide you, because this is
110 not something that an individual can do – can do on her own. And I don't
111 think that an organisation like the *Centre for Learning and Teaching and*
112 *Assessment* are the ideal people because they – they're dislocated – they're far
113 from us, they don't - they're not interested in our – in our subjects and in our
114 themes. They're not really interested in our students, and I think they take the
115 heart out of the technology, and as you know I'm a Bonni Nardi fan, and the
116 heart of the technology's for me as important as the mind.

117 @ You said earlier on that it-it was very tough ...

118 % Mmmhmm

119 @ ... now has it got any easier perhaps – or is it still difficult?

120 % For me it's now easier because I have now learned to manage. Y'know if I
121 were to – to get a class of a-hundred-and-twenty-seven students again, and
122 work with them on a weekly [laughs] basis, and ask them all to do two
123 discussion postings per week and to read so much, I – I would have the same
124 problems. But I think I've learned how to manage it and to plan it better, to do
125 less - in a way - but also more, because if you do less and you go in more
126 deeply and focus on fewer themes perhaps, and also not use the technology for
127 – I mean – the - the learning management systems, specifically *WebCT*,- not
128 to use it according to its own guidelines, but to be innovative and to
129 experiment with it because I would definitely not do discussions again, and
130 threaded discussions again, I would use that tool ... on a system ... for
131 something else. And I think I've told you guys what I would do, I would use it
132 for people to collaboratively write something, like someone writes the first
133 part, someone writes the second part and so on. To create things, to exhibit
134 things, um one out of a group of ten, and remember we too were the
135 innovators on dividing the class into groups, which I thought was quite
136 innovative. I'd do that same thing, have small groups working together, but

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137 then let them um one per week or one per learning unit, or two per learning
138 unit a week, put up something that the others then critically discuss. So, it - it
139 becomes an exhibition space and a talking space, not a place where you tell
140 others what you've read and what you think about it, because that's where a
141 lot of the cutting and pasting takes place. This has to be creative, original
142 work. And I think that's the way to go about it. So, I would – I would work
143 *completely* differently, I would not – I think I would not rely on the learning
144 management system itself so much, but I would rather manage the learning
145 management system, in a different way, play with things – but I would
146 definitely do it again, I would do, yes. I would prefer master's students though.
147 And I *would* like them to have gone through a *really* good computer literacy
148 and Internet literacy programme and to have learned the learning management
149 system before they even come to me, because I don't want to teach them that, I
150 don't have time and I don't think it's fair.

151 @ Well you've now told us what you have done now, but is this any different to
152 what you did before - e-learning?

153 % Yes.

154 @ Different to what you did in the classroom perhaps?

155 % Oh yes, yes, yes, yes. First of all *I think* differently. Um [laughs] ... I suppose
156 I know some of the theory, some of it that I could use – that as a ... as a tool
157 for us now. I think distributed cognition is for me the thing. I don't think
158 anymore in terms of *a* theme, *a* theorist, a number of books. I now think “o.k.
159 this is our *theme*” – say the theme, research methodology, is erm symbolic
160 interactionism, and what I immediately think: “oh boy we can go to that site
161 and that site and that site, and I can do it within minutes”. So in the
162 construction - and I think this is so important, I really do - in the construction
163 of my – of my um – of my work plan - not my study guide but my work plan –
164 I can now chop and change, create and recreate much more freely, and my *old*
165 thinking is more directed because within a few minutes I have answers to
166 questions about: Is this possible? Is this gonna work? Is there a good paper out
167 there on the Web that I can use? Is there a good article? Is there a good course
168 that I can borrow? Er, are there good graphics somewhere? I mean I can do it
169 within hours, and that means that I can recreate and reinvent courses and that's
170 for me fantastic - that you can have an open, organic, moving curriculum, like

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171 what Betty Collis says... though I hear she's not number one in that anymore,
172 but that the process of curriculum is actually the curriculum, and this – this
173 demonstrates it – nothing is fixed. *But*, at the same time, I was also changed
174 my thinking, I also realised that learners, that students generally, especially the
175 adult learners with whom I work, want to have the security of some structure,
176 so you give them the structure, but then you sort of surprise them with some
177 freedoms you add in, but what I *actually* wanted to say – is that it's changed
178 *my* thinking, about education, quite dramatically, so it must impact everything
179 I do. And I – and you can see it in the way I write, um, I write differently
180 about ... planning and learning. I don't know if this should be said on tape but
181 some of the stuff you heard this morning?- Was written by me. And, part of
182 my freedom in thinking like that, has come from the fact that I could easily
183 access what they do at that university - how they do it here, and then because
184 *my mind* has now more and more been allowed to work in a networked
185 fashion, I've allowed

186 @ Mmm.

187 % myself not to be so linear - I can be more creative. So, *inevitably* it must come
188 into my coursework and in my teaching.

189 @ You spoke a little bit earlier on about needing guidance

190 % Mmm.

191 @ in the beginning.

192 % Mmmhmm.

193 @ You seem to have learned quite a bit already by yourself, do you think you
194 still need guidance?

195 % Yeh. I definitely do. I feel *very* very insecure, when I think that you're not
196 going to be around, or I can't speak to D, or where's R? [Laughs] – I ... - I – I
197 don't like this, that I need – I have to go this alone – I can't. And I y'know
198 understand a lot of the stuff now, but I still can't do all of it. I feel ur, ur, also
199 like -like I feel when the IT department on the third floor? When I'm at home
200 working and there's a problem, I feel very - I feel very unsafe, if I can't phone
201 RAU 2912 ... and ask them, and in the same way I wouldn't tackle something
202 like this on my own, I would *need* – even if I never made use of anybody, but
203 the fact that they're there, this is not something you can do – go alone –
204 because – because the system itself has so many challenges that you can't face

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205 on your own. And remember I'm not ... when - when did I first work on the
206 Internet? [Sighs] Five – six years ago? And you must know that many years
207 ago I still typed my – I mean I still wrote my doctorate by hand.

208 @ Mmmh.

209 % It – it's very important to take note of that – I mean D often talks about – not a
210 metaphor that I like very much – because there maybe ss- y'know - some sort
211 of cultural or racial bias in it – but from *pap pot* to ... what?

212 @/% [Together] ... to *Pentium*

213 % Yah, well I can tell you in my *own* case – and this is a woman that has had a
214 privileged education – um I went from handwriting a PhD to ... doing the
215 most incredible-ly wonderful things on the Web, er not only for my – for my
216 teaching e-learning but just generally.

217 @ I don't know if you can see it but I've actually got goose-bumps listening to
218 this because it's such a – such an experience and - and just thinking about it –

219 % Mmm.

220 @ the example you gave – is – is fantastic, and I'm – I was wondering if there
221 were any other experiences you could possibly tell me about that have...
222 influenced you in any way?

223 % Oh yes, I – I think I've been more courageous – and th-this is really important
224 to me %, I mean I – I didn't – I didn't think about it until this very moment.
225 I've been more courageous in my conceptualisation of my own knowledge,
226 since I've worked on the Internet, and specifically in e-learning, because for
227 some or other strange reason I was attracted to this work, way back when A
228 was still here, and we did our first research with the Orange Farm teachers,
229 and got our first publication [laughs] in Computers and Education. Footnote:
230 D and I got another one in! (laughs)

231 @ Mmmh

232 % Um ... It – it just fascinated me because there was a guy ... who was an
233 unqualified teacher living in informal settlement community and he was
234 saying "Oh my life has changed so much. Previously I had to write by hand
235 and now I just say 'rat-a-tat-tut-tut'" and he sang a song, a very rhythmic little
236 song that he made up there and then, to say how this excites him. And I think
237 in my case it's a little bit like that, I'm a senior colleague, and this drew me
238 because ... because I suppose of my interest in human learning itself. And I

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239 could see what it was doing, and the conferences that I attended, in the early
240 nineties, ur, and the papers that I read and they talked about hypertext, and I
241 thought “oh my”, this is really early nineties eh? Um ...

242 @ Humhmm! (chuckle)

243 % What is hypertext?” And you know I went to these meetings ... this is at
244 AERA nineteen-ninety-one. Chicago, I remember the - the room in which it
245 was done, and they showed me and I thought “but this is distributed cognition,
246 this is networked learning, this is parallel distribution of (inaudible), this is the
247 stuff that I’ve been dreaming about and wondering ‘how am I going to see it?’
248 and here I am seeing it and I was just hooked. Completely hooked, and when
249 D invited me to do research with him, I did it very tentatively because y’know
250 I thought “what can I do here?” And it was probably one of the best invitations
251 I’ve had in my life – the research - because it opened up the field. I would
252 never have gate-crashed into your programme like this. I mean I-I-I just don’t
253 operate that way but now I’m here and I – I have to say to you when I hear J
254 speak and I hear ur ur R speak, and I hear R speak – this brilliant colleague of
255 ours – I mean she’s just so brilliant, in fact when I hear them speak, and I hear
256 you people speak and I hear the students in the masters class speak, it makes
257 so much more sense to me than when I listen – please forgive me for this
258 [laughs] – to other educational discussers and discussions in the Faculty at the
259 moment because it’s just so much more exciting, it’s so much more complex.
260 It challenges things *head on*. The software, I mean the stuff that R did for his
261 um doctorate, I heard that the students that he did it for say “ah this is so easy”
262 you know, “we want much more difficult things.” And I thought “if only you
263 knew how your brain has to work in order to be able to - to do these little
264 tasks”. But you *don’t* know that if you *don’t* - *know* - *the* – *software*. Now I
265 can’t .. do the software, because I’m – I’m just not fast enough. I mean m-my
266 hand-eye co-ordination isn’t fast enough, *but* I understand how it works and
267 now I know how complex it is, therefore I *know* that this is actually high order
268 cognition, whilst it doesn’t look like this - so, that’s for me the biggest joy, is
269 to, is that here, at this stage of my career .. um ... the technology of e-learning
270 and my own passionate interest in human learning have come together, and it
271 it’s fun. I wouldn’t have had the courage – that’s how I started talking just
272 now heh? I wouldn’t have had the courage to submit papers, for a world

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273 conference on e-learning, where only twelve papers would be accepted and
274 where I would sit in a – in the same audience as – as John Seely Brown. In the
275 end I sat next to him, in the end I put my paper next to his on the Web, can
276 you believe it? I mean I would never have had the cheek. But it - because it
277 excited me so and I so badly wanted to become part of this – it's not even
278 motivation it's much more. I did it and you know what happened afterwards. I
279 mean I was rewarded in the most beautiful way. And that – that – it – it
280 inspires me and then I come down to this department – yesterday I walked
281 down – I actually came down to see the guy in the Writing Centre – Andrew –
282 and I came down and I thought there'll be such a vibe here when – when
283 people are here. Things are moving, things are going on here, students are
284 actually *engaged*. There's not this nonsense of dumping your essay or your
285 assignment into somebody's post box, and getting it marked, there's always
286 talk and engagement- talk and engagement - via the Web or otherwise, people
287 are talking, people are doing, offices are mostly open. Uh, uh I don't know, I
288 think it's um .. it's just - I'm very very privileged that I didn't have to one day
289 retire, with having written books and articles and not having published on the
290 Web. Nice highlight for me that: publication on the Web. I'm going for it now.
291 Going to Germany, going to – going to do all sort of things, I'm going to
292 publish on the Web in a - in a journal – journal .. on Qualitative Research in
293 Germany.

294 @ Sounds like a fantastic process you've been through but looking back now
295 would you have done anything differently perhaps?... would you have liked to
296 have started somewhere else?

297 % You know it's in hindsight always (inaudible) of course I would – I would
298 probably have started this a bit earlier. I would have maybe - look I have never
299 been to a formal course except having sat in a masters course this year. Maybe
300 – I did try to go to courses but quite frankly the courses that were - were
301 presented here ... from - not from our Faculty, were quite horrific. Y'know
302 people who presented them ... they don't know – they don't know the stuff
303 that I'm interested in ... namely this - this new (inaudible) um in - in mind,
304 they don't know that so they can't talk, so they bore me to death [laughs]...
305 I'm sorry to say. Look, I don't think that e-learning uptake is general, and I
306 think it takes people a long long time to really get to the point where they can

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307 get excited about it. But I can tell you young people and older people who've
308 really engaged. They um, they make the best of it. My daughter, as you know,
309 is a student – final year student in the United States – and who - has to do a lot
310 of stuff online ... um ... it's just so much part of her life ... even though she
311 doesn't like typing itself, she just can do it and does it .. so I - what I would
312 have done differently ... is probably you know what? I like being self-
313 taught and learning as I go along and just making friends, buddies, learning
314 buddies with people like you folks down here – I wouldn't have done it
315 differently. I think if I'd have started off with formal courses and stuff like that
316 that I would probably have just chucked it - disengaged with it.

317 @ To get back to the beginning of that little thread there, you said you would -
318 would have liked to have started earlier but we have found that others are very
319 cautious to begin ...?

320 % Who are these others?

321 @ Sh' - others in the Faculty. Should we force them? Should we – should we let
322 them discover for themselves the joys of e-learning?

323 % Ok force you can never do, but what you can say is – err - because there – now
324 you can't legislate change in education. Everybody who tries faces the truth
325 eventually. I was saying that I don't think that one can force people – it's not
326 going to work – but I think one can give them examples of the joy of it and I
327 think what would tickle people here in this specific Faculty at this point in
328 time – it's – it-s an historical moment – where we are being challenged with
329 um research output, you know, I think we'll hear more about this. Um, that –
330 to – to show people that to – to – to study learning and communication and
331 education from this point of view is so exciting, and so rewarding, you see,
332 because the rewards are out there and also it's - if you don't do it then you are
333 going to assume that you may continue like this for ever after. Um I don't
334 think that's possible. I don't think that higher education can afford to have
335 only face-to-face interaction – and in any case RAU has such limited face-to-
336 face time. I mean our - our class time has been diminished - diminished by
337 three-quarters so ... I – I think it's going to become an inevitability but people
338 need to see results of success, and they need to see good work and I would
339 suggest that - that you guys run more – I would suggest monthly seminars on

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340 what you've been doing, what's been working well, and to just keep on doing
341 it. And talk about research successes.

342 @ Right, well we can concentrate on – on the successes, but I'd like to ask you:
343 have you come across anything that was especially troublesome for you?

344 % [Laughs] Oh yes! What everybody comes across

345 @ Mmm

346 % and there's the inc-red-ible adjustment that students and staff go through and
347 the way that they - they sort of lash out – um – I mean I've even written an
348 article or two about this – three – about ... how – how the students who ...
349 well who are immersed in an opportunity to – to learn this way or to – to be
350 mediated in this way. How they lash out at - at one personally – there are –that
351 was quite strange for me because I hadn't experienced that in my life, that
352 students lash out at me so personally, I mean you remember that they even
353 went to the SRC, and a lady complained ... um

354 @ [laughs]

355 % I didn't know what the content of the complaint was but that they had to work
356 too hard or whatever ...Look that was hard, what is also hard for me is that
357 I'm working with students who ... have to make a life change in terms of
358 values because they have to get internet connection, they can't just do it from
359 campus and ... um that - that's quite hard for me – it's getting better now, but
360 it's hard for me to know that I'm making demands on people's pockets – that
361 they have to invest. Um, but then on the other hand, if we don't make that
362 demand we are saying "stay behind" and that I think is not fair ... it - it's just
363 not fair, Africa can't afford to stay behind – so. But that was really hard, what
364 was quite hard also – um, perhaps also it's something of a personal level,
365 although I didn't take it too personally, is the way that my colleagues
366 responded, especially colleagues who have not been interested in uptake at all.
367 I mean, umm, people that I get on with very very well, responded *so*
368 antagonistically, as if they were in a way attacking an enemy. And at the
369 moment I couldn't understand it - two or three years ago, but now looking
370 back, I actually see what happened there, it wasn't me they were attacking it
371 was changed, it was advancement and the fact that they were staying behind,
372 that they'd not invested in becoming literate err for the age that we live in, and
373 that - that is a great big fear, and what does one do? You know, you – you

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374 literally you project it onto the person whose doing it and who else – than er
375 doing it - and I have to say this - onto who what appears to be a vulnerable
376 woman not - not a male because none of you suffered the way I did. Nobody
377 ever came down on you so it – it's quite typical – um also perhaps because
378 they thought I could take it but I – I found that very disconcerting and very
379 off-putting. I thought you know if this – because relationships were damaged,
380 I mean there were two guys who literally were so cross with me they wouldn't
381 stop talking about it – that I did this to their students and that I upset the
382 course like this and goodness knows what. And all I had to say to myself
383 through that time, and it was literally months of it, was just hang in there, you
384 know, this is the way the world's going, um students have to learn this and
385 don't take this personally. But it was hard at the time.

386 @ Well I know about that course and I know that it was quite pedagogically
387 sound, the way that you approached it and so on, umm, we know that you have
388 a – a good background in pedagogy but how much does one actually need to
389 teach in this - in this new and exciting way?

390 % You know I – uh – yes, the course itself was pedagogically sound but the way
391 I converted it to the – to the – to the internet was not that sound, I mean
392 looking back, we - we can now improve on it vastly, I mean gees! [laughs] It
393 was bad that way, you can't just duplicate it, but ... um, I think people need ...
394 need to be quite ... quite um ... experienced ... in terms of pedagogical
395 knowledge and - and check my words, I say 'quite experienced', in other
396 words they mustn't know *about* things, they must have *done* things. They
397 mustn't say 'this is how you design a good learning experience on the web' or
398 'this is how you design a good learning event face-to-face'. No they must have
399 *done* it because it's only through – that's it you see, education is interaction
400 and you do not learn about it only from - from other people's little manuals, or
401 even from high theory, you must actually do it and then reflect on it. You may
402 have noticed that in my own teaching when I first do the practical and then go
403 to the theory. It's – may - may appear a little bit upside down but it works. So,
404 ur I - I do think people need to be pedagogically experienced. I wouldn't throw
405 a novice teacher of any kind into this ... although, although, perhaps, and I'm
406 thinking of this only now, if they have no choice, they will learn. But it's hard,
407 urr – it's [noise] a petrified pedagogist, somebody who's, who's got fixed

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408 ideas about teaching and learning, even though they may sing the – the praises
409 or sing urr the tunes of current policy, like outcomes based education ... they
410 still do exactly as they used to do, namely download knowledge and hope that
411 people will receive it, um, and then reproduce it. I mean the Web is quite a
412 sucker for that, excuse my language but, ur, if if you want to do that you can
413 do it on the internet with great glee. So I think you must be a *really*
414 experienced teacher to do it well. Yah! I hope this makes sense.

415 @ And do you have any plans for the future? Are you going to continue?

416 % Totally. Continue. My plans are not fixed because that's part of the fun, and it
417 suits me *so* well, to be able to change, but there will be a curriculum next year,
418 for two modules at masters level ... and, um, I plan to collaborate with - and
419 listen to this: [laughs] ... I plan to collaborate with err two colleagues, one in
420 Australia, and er one in the, in the United States ... so they're going to co-
421 teach with me, *seriously*, and also co-examine with me seriously. Th-they have
422 to buy into this, and I will do so with their students as well. So I mean this is
423 great, I'm going to – oooh and er Amsterdam, the Free University of
424 [BREAK] collaborate with this colleague at the Univers – the Free
425 University of Amsterdam - their Research Methodology department in a
426 Research Methodology course, and she will teach them some ethnographic
427 stuff and I'll teach her students excuse me, some discourse analysis, and
428 I mean this is incredible, where else can you co-teach like this? – I mean there
429 we are paying tens of thousand of Rands for people to travel out here and to
430 teach us ... and if people can just make that switch ... you can be taught by the
431 best people in the world. And then one day when you meet them face-to-face
432 it's just a bonus. And this is - this is free. So, I think if we have shown people
433 that, that if you can get - actually get into the heart of other people's ideas, and
434 I keep on talking about 'heart' – um, I have been in – have mailed Bonni
435 Nardi, I know her family because of her web site, I know her *so* well and I've
436 never seen her, so her work makes so much sense to me, and John Seeley
437 Brown, whose work I've been reading since nineteen-eighty-nine, and who –
438 he was just so well known in his field and ... It's ur, it's so nice when you
439 eventually see them but you don't have to see them because they live on their
440 web sites and through their work. There's a guy at the University of Michigan
441 who used to be at the State University in New York, urr Jay Lemko who's a, a

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442 great semiotician, I've never met Jay, but I know exactly what he looks like, I
443 know what his hobbies are, we-we are very friendly with each other, he's a
444 guy of forty-something, and he is just the most brilliant person. And his work
445 ha' - is ... is sort of fused in a way with my work at the moment but I've
446 never met him, and that's what I wanted to teach to students – that you can
447 now learn with anybody who is willing anywhere in the world, and that excites
448 me no end. So that's where I'm going - two courses – but blended learning,
449 and specifically focused on making contact with people rather than learning
450 factual knowledge, it's about getting into contact.

451 @ Do you think our current workplace environment is conducive to e-learning?
452 that - the kind of e-learning that you mentioned?

453 % You know, I ... I have to speak in two voices here, firstly I will speak in my
454 factual voice you know, just what we have, look we have this – all these
455 computers, we have this policy of our institution, which presents itself as a
456 multi-modal institution, um, and I have to say as a footnote that that's
457 something of an oxymoron because you can't be a contemporary at the
458 university if you're not multi-modal so I don't know why we make such a fuss
459 about it! But we-we-we acknowledge all of this. We also acknowledge it in the
460 sense that we now have a department or a section, err which looks after this
461 part of our work, which is not faculty-based. And that's my problem with all
462 of this -that the people who wrote the policy, and many of the people who do
463 the practicioning now, have not really been the teachers, and they don't really
464 understand ... ooh – the frustrations I suppose? And the joys of it. And I'm
465 somehow not sure that the terminology that they use, or the theories and the
466 knowledge domains that they refer to are really part and parcel of their
467 understanding – I get the impression that when people from SOLA speak at
468 public meetings and so on, that they are name-dropping, and when you
469 question them they do some more name-dropping so - I'm not convinced that
470 they are the best people to do it, so, from that point of view the broader
471 environment would put me off, like it has put off many of the other good
472 teachers here, who said that they wouldn't teach it, I mean, you know, D did
473 that research, with - with his friend Deon?

474 @ Umm-hm

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475 % And I really think that tho-those those people have a point, because if I had to
476 do, quite honestly ... [laughs] @, if I had to do all of this ... and if I had to be
477 guided by the folks in SOLA I wouldn't have done it. I wouldn't have touched
478 it at all. I'm doing this because I trust the people and I like the people and I
479 *know* that they, um, that they are not only experts but that they also care and
480 that they are teachers at heart and every single one of them, that ur you know I
481 don't know, for them it's not just a job, it's - it's about progress and it's about
482 really getting as many disadvantaged folks onto ... learning opportunities. So
483 I'm ... be' - a person like myself, who - somebody who believes that
484 technology has heart? No, so that's not conducive. But this Faculty, this - this
485 group, down here on A what 4? You people are - are - are, supportive in the
486 right way, maybe I'm just lucky, maybe my style of work is acceptable here? I
487 don't know. I am *quite sure* that I wouldn't have touched it with a ten-foot
488 pole if it hadn't been for the folks right around me. ...And you can quote me
489 on that! [Laughing]

490 @ I'm going to do that.

491 % I'm not, I'm really, I'm not impressed with some of the other work that comes
492 out. I think it is um ... here and there there's a spark of light but I think they
493 um ... they run and they run and I don't know if they're running for the right
494 thing. And I saw them, some of them in action at the Worldwide Web
495 Applications conference ... and I was actually concerned, that they are
496 regarded as the specialists. I was concerned. I am very sad that RAU is
497 missing out on all the wonderful stuff that's happening in this Faculty. Um but
498 they won't give recognition to the really good work, here, because it ur - well
499 it's a question of power. Read Michael Foucault, it's about power and
500 knowledge. So we must just I think ignore it and move on and do really
501 *brilliant* research and teaching.

502 @ You've already given us a few recommendations about how to enable e-
503 learning here, are there perhaps do you have - have any last thoughts?

504 % Yes, I really think we must apply for more and more research funding, because
505 we - we must research, not just what we do ourselves. I'm a little bit tired of
506 all the self-evaluation and naval-gazing and looking into ourselves and
507 reflecting upon reflections upon reflections, *but*, research into - for instance -
508 how rural communities er um engage with the opportunities as specific groups

APPENDIX F: Ellen's interview

509 of kids at schools - not the macro sort of stuff like *Schoolnet* – and the big
510 things because that's always researched in - in by big organisations and
511 funders who look for quantitative information and we're looking for learning
512 and that you have to do onsite, er in small groups, qualitatively mostly. So I
513 think we need to really really move with this research and I think there's a lot
514 of potential here and I think, *also*, that we must become, if I say "we" I mean
515 the Faculty, we must become *experts* in the methodology, to research e-
516 learning and that's quite a challenge because many methods of enquiry will
517 have to be designed. We're we're not there yet, the entire world is searching
518 for ways to research and I think we've we've we've we we will find
519 something. I am concerned about ...the general lack of uptake in the Faculty,
520 it's surprises me terribly that not everybody's excited about this. Any last
521 thing? – Yah, thank you, for making me part of your research, I'm really
522 privileged, and I think you're going to do a really beautiful piece of work.

523 @ Thank you for your contribution. I appreciate it.

524 % ... one piece of information, something that I really left out, I – when I started
525 working at RAU, I was in a small community of lecturers and researchers, that
526 community dissipated for whatever reason. Then I worked with one colleague
527 and another colleague. That group also dissipated because my colleague went
528 into a different direction and we couldn't work together so much any more.
529 And I started getting really bored with educational linguistics, because the
530 conferences in South Africa had become so boring that I didn't go to them
531 anymore. They were really boring, I mean some of the overseas research was
532 still ok, and the policy problems here at home, so I was really without an
533 academic group interest. I worked on my own, but there's no way that
534 anybody can work on their own. It's not healthy. I have, had an interest in
535 community education, but then D went to Stellenbosch, and I lost my
536 colleague there, and there was a sense of isolation um which I didn't quite
537 understand at the time, I just carried on with my work. And then I had um
538 leave, and I came back and realised that – I think peripherally only, because
539 I'm not officially in the programme anymore,- but peripherally there there
540 seems to be a community in which I can think again. It's a community in
541 which I can think, not necessarily act and teach and whatever, but in which I
542 can think. People understand what I say, people to whose offices I can go and

APPENDIX F: Ellen's interview

543 say: "have you read this about e-learning?" and "my gosh!" you know, "thank
544 you for that" and share – the only other person that I'm sharing with at the
545 moment is W. So - I got - my community dissipated and I got a new
546 community and I don't think one can teach, and - especially research, and
547 think and be scholarly, without a community – call it of of practice – or of
548 learning, I don't mind - community of learning more than of practice because
549 that term is not ... it doesn't mean as much as we thought it meant.

550 @ Thursday second of October – 9.30

Appendix G: Irma's interview

1 10th of March,

2

3 % Thank you for being here today, I've given you a brief introduction to the study,
4 umm... and I'm going to ask you the same question that I have asked the previous
5 eight people, basically I would just like you to tell me a story today, the story of,
6 of your experiences, you and your colleagues experiences of e learning uptake
7 within the faculty.

8

9 # Ok, when I got here three years ago, there was a course that I had to take over
10 which was already WEBCT based, so I came in here, not knowing anything about
11 WEBCT, but had to very quickly learn, cuz I had decided to rather learn
12 something new and go with it, than redesign and get back into a comfort zone that
13 was working for me, so umm... ja, I attended the basic course, and familiarized
14 myself with the package that was already available and began teaching from there.
15 In the first year I can honestly say that I was almost reactive to whatever I
16 experienced, I worked with what was there, I didn't try to change anything or do
17 anything differently, umm, there was content on the course, there were assessment
18 exercises, the communication tool was set up, and umm, additional web sites that
19 we could extend into for additional reading etcetera, umm I had very good
20 assistance from the people who had previously designed it, and they supported
21 whatever I had to do, ok, and this was faculty-based support, it wasn't the
22 WEBCT people that assisted or whoever was responsible for assisting lecturers, I
23 didn't go to them because I found that they were either not available when I
24 needed to know something, and unfortunately, you need to know now, if you want
25 to work with a tool that is already existing and you don't have too much of skill
26 on it, so I worked with the people who designed it, and these are colleagues.

27

28 Umm, in the second year I began to change things around a little bit, and I also
29 went back, brushed up on the basic course, I haven't done the advanced course
30 because I just feel I am still working with the basic technologies, umm and I made
31 all the changes that needed to be made, like umm, the date, etcetera, and and just

Appendix G: Irma's interview

32 looking at the tools and the tool functions, and getting again assistance from you,
33 to simplify and make it more accessible to the student, umm, what I found I was
34 using a lot more in the second year besides the basic tool, was the communication
35 channel with my students. I encourage them to communicate on that basis, and
36 umm, learned little... tricks, to present information that was easier for me,
37 because when you have a hundred students communicating about a particular
38 lesson, after reading say five of their messages, you realize this is a problem area
39 which you need to address, and then I would very quickly do a comprehensive
40 memo, directing to that particular problem, and as I go through, I can almost just
41 like cut and paste, and although to the student it is going to be a personal message
42 that I am sending to them, for me it was easier, so I found that very helpful, and I
43 really think if we look into student communication, interaction and even the
44 psychology of creating a one-on-one relationship, I was able to do it without
45 doing too much, I didn't have to spend fifteen minutes with a student, I was
46 spending two minutes or less on the web, and getting the benefit of a personal
47 interview that would have taken a lot more time, ok, so that I thoroughly enjoyed,
48 that you know is, I think an area I would like to delve deeper into because to me
49 the technology is a tool for my teaching. It hasn't replaced anything, its not going
50 to umm... its not gonna take away stuff to make my life easier, its not an easy ride
51 package, its just an instrument that is going to enhance whatever I am, and
52 whatever I want to do. So if I'm going to stay involved with my student, I'm
53 going to use an instrument in that way, if I want to umm... provide more content
54 material, I will use the instrument in that way and I think that is the interesting
55 thing for me, is the way people react to new technologies, it's really a reflection of
56 who they are and what they are about, as educators, so the technology is really an
57 objective piece. Umm, coming back to the experience of working with it, one of
58 the problems I said I had, are the people that are available to assist, I just feel
59 there may be miscommunication about what their umm, job function is, as
60 opposed to what I perceive their job function to be, because I am the knowledge
61 expert, I am the educator, I have a good idea of what I want to do with my course,
62 but because I don't know the technology, I'm not able to choose how it needs to

Appendix G: Irma's interview

63 be structured, but when I go the people that are supposed to assist, and umm they,
64 you know almost make me feel that my job is data processing one, then I need to
65 understand the intricacies of the tool and instruct them on what I want them to do,
66 but I don't know this, so I have no way of instructing them, and that is the gap,
67 because it is almost like a battle that is ongoing between what they believe they
68 should be doing and what I should be doing prior to them doing their work, and I
69 am thinking, no, sorry, I am the expert here, you are the expert in your field, now,
70 no, don't tell me about my content, but tell me how to manipulate my content
71 ...right, and in telling me that you actually need to follow up and do it, so I don't
72 want to be involved in the technical setting up of anything... alright, I just feel if I
73 know how to use the tool in my teaching, it is enough. If I want to be involved in
74 the technology of the tool, I will go and study something else, and I'm not sure at
75 this point in time whether it is my responsibility, maybe its just umm... a battle of
76 of denying that there is a need to change something in myself, you know, so, so
77 that is an area that we need to explore as well. So, I don't know, it s a second
78 semester course, I'm already, now I'm thinking about changing content areas,
79 changing assessment strategies and you know, looking at the communication, so
80 in every year I try to do things a little bit differently and a little bit more. Umm...
81 I am going to do it, because we are dealing with larger student numbers, it takes
82 away the excuse that students have about what they need to do and how much
83 they can do because this is a tool that allows me to put everything on the students
84 desk, and umm, its almost like fulfilling a hundred and ten percent my
85 responsibility of provision... and now it is their responsibility to take it and work
86 with it, so umm.. so umm, you know, they don't go to the library anymore to
87 gain information, they are not limited in terms of hours, so you know, the, the
88 links are really fantastic, because I use a lot of electronic journals as support
89 reading, so its very easy to link in with that, so umm, ja no its definitely
90 something that is here to stay, umm, should be worked at, should be umm.. used
91 by a large number of our colleagues, we need to start integrating as a faculty how
92 we are using the tool but we can only do that if we integrate coursework and
93 course content, which is very difficult to do, because I mean even within our

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94 program group, from like umm.. undergraduate level, honors to masters level,
95 because different people are responsible for course content umm, its difficult to
96 integrate that because each person feels, this is my domain, and this is what I will
97 do in my domain and you have no right to talk about what feeds in, and what
98 results from, you know, so that is also a challenge, if you want to create an
99 integrated tool, we need to start breaking down the boundaries of what we regard
100 as our little domain, however, this being the field of experts and expertise, I don't
101 know how that is gonna happen and I think that's coming back to the power issues
102 that you were talking about, umm... ja, that's my story in a nutshell, you want to
103 ask me anything?

104

105 % Yes, I do, if I can take you back, right to the beginning, it seems that you've
106 learned a lot over the process of this or throughout this two years, but when you
107 came in to the business, umm...

108

109 # I hadn't heard the word WEBCT...never knew it existed and knew that there was
110 something called multimodal teaching and learning, but had very little knowledge
111 of what it entailed

112

113 % It seems that you, you, you adopted this new way of teaching, was it spontaneous,
114 umm, were you forced to do it...

115

116 # No, I made a choice about it, I made a conscious choice that whatever this
117 environment represents and whatever I can do to improve my professional status
118 and professional being and I think its also personal development, I do have young
119 children, and, I mean it is difficult enough trying to prove that we are umm...
120 smart people as parents so I'm not going to allow for an area of which I know
121 nothing, and I think that is when like it comes to a whole notion of working with
122 computers, I went out and looked to be minimally equipped to be able to do
123 whatever I had to do without constantly asking somebody, you know, how do I do
124 this, and what do I do? And I think another thing that helps me is, if I have a

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125 problem, I would call somebody, and ask them to take me through a process over
126 the telephone, because I found in doing... to fix, I learn a lot more, and while I do
127 things I make notes, umm, I've now got a book called "the idiots guide to
128 computer technology" Its all my personal notes and umm, I write things down so
129 the next time something goes wrong, which may be six months later the problem
130 recurs, I go back there and I check, and, and umm...ja, I'd rather do things and fix
131 things on my own with guidance and support than have somebody come into my
132 office, sit at my keyboard, ...perform some magic and disappear, and its all a gap
133 because that leaves me feeling dumb you know so think I made a conscious
134 choice about learning... and learning to use it, ...it can't be that difficult I mean
135 if one person can do it, why not the next?

136

137 % I'd like to ask you now, how much pedagogy does one actually need to teach in
138 this way?

139

140 # If, you are a teacher, in your soul, and this is going beyond the heart, then you
141 have a responsibility to do this, because if pedagogy is all about teaching and
142 learning, it starts with the self, and that's it, to me, that's it you know, if I am truly
143 interested in pedagogy and I want to teach others, you learn by example, so you
144 are the example and if you as the teacher are not prepared to learn, then why on
145 earth are you teaching?

146

147 % Then I'd like to ask you umm... compared to the way you taught before, has
148 anything changed?

149

150 # Of course, because the instrument is now different, I'm not using a stick of chalk,
151 I'm not using a transparency and a transparency pen anymore, um...it is almost
152 taking the notion of PowerPoint presentation and adding my voice and my finger
153 with chalk altogether in a different package, because when I work with the
154 WEBCT course, the e learning environment, umm... to me what it represents is, I
155 am actually there, the student is with me, is hearing my voice, is interacting with

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156 my personality, umm... and working with all of that through the medium of the
157 computer and the screen, so when I am designing something, or presenting
158 something for the student, irrespective of what it is, I am conscious of the fact that
159 my personality is coming through, my teaching styles is coming through, my
160 demands are coming through, all of these hidden messages are coming through
161 the system, so I don't feel negated by it or I don't see it as something that is
162 inhuman and is taking away the human interaction, it is just an instrument that is
163 going to enhance that in another way. Have I answered the question?
164

165 % Mmm I think so, and knowing what you know now, would you have done
166 anything differently in the past few years?
167

168 # Umm...yes, yes, I'm sure, I'm sure upon reflection and then we go back and
169 retrace footsteps, you become a little bit wiser, but umm... reflecting on what has
170 been done thus far, I don't feel disappointed or anything because it was something
171 totally new, it was totally different from anything that I have ever done in the past
172 and I was able to use it so that to me is an accolade. But if I have to do things
173 differently, then perhaps I would have attended the course closer to the time of
174 which I needed to use the content and as I attended it, rather than attending over
175 two days intensely, I would have liked to have had slow interaction with the
176 experts, so that it gave me more time to go back and work with what I could do,
177 but... within the reality of this world in our environment, that's an ideal, so ja, it
178 was good enough, it was sufficient to get me going.
179

180 % And, do you have any plans for the future?
181

182 # Yes, as I said to you I am looking at changing the content of a part of the course,
183 adding something totally new into it, so it means that it gives me a chance to like
184 cut it up now, and begin to repackage it, where as previously I was just modifying
185 the package, I am now looking at unbundling it and reorganizing it, so I haven't
186 started yet, I plan on beginning in April, when we come back, because it needs to

Appendix G: Irma's interview

187 be ready for the following quarter and ja, let's see what that experience is. But
188 look it's not too difficult, it's not too difficult, cause if you look at the manuals,
189 oh... and I have downloaded and taken off the CD, I printed out, I think I've got
190 about two files full of information...

191

192 % (Laughing)

193

194 # ...that's topic filed, because if my idiot guide does not help me, then I've got the
195 expert's guide, and it's a matter of just reading and following the instructions, it's
196 not complicated, it's not high IQ stuff, it is high EQ stuff, you've got to fix up
197 your part of your attitude, and umm... then it begins to work for you.

198

199 % I like that

200

201 # (Laughing) ja...

202

203 % Umm... that's about all I need to ask you but umm, perhaps one last chance to
204 think about or reflect on your e learning uptake over the last few years just a final
205 thought?

206

207 # Ja, I think what I really really would like from umm... the system, the
208 organization, is a different kind of support, umm... I don't want to have this back
209 and forth... almost power game being played, no it's not my job to do it, it's your
210 job. I think what the people that are assisting with implementation need to do is to
211 be, to overextend in, in in the area of accommodation, if you want to encourage
212 people to do this, then getting people that would do the data processing, you
213 know, if somebody can take over, just sitting at the keyboard, just typing
214 information for me, then it allows me to remain the expert, but if I have to go back
215 and working at basics, it's bad enough learning to do something differently, it
216 leaves me feeling very insecure because I know my inadequacies... you know but
217 when I have somebody say to me, go and do this and redo this, and this is not

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218 right, and that can't work, tell me why, ...and maybe then I will begin to
219 understand, so, I think a lot more support from people that are assisting lecturers
220 with putting courses onto the web, umm, we probably need to get people to
221 actually do it for us, and allow us to use it, because remember that was my
222 experience, it was there, and I began to use it, so if umm... I almost maintained a
223 sense of dignity in my interaction with it and that just helped me continue with it,
224 you know but if I now have to, when I was modifying the course last year, and I
225 thought, gee you know, if I had to start putting this on, I am not going to be... I
226 would have given up halfway through, because I don't want these deliberations
227 back and forth, I want to just be able to pick up things and work with it very
228 quickly, we don't have the luxury of time, you know the e learning environment is
229 something that works at an accelerated time base, you know, I've learned
230 something today, tomorrow it's totally obsolete so, you know, just assist us, to
231 keep a step ahead, so ja, it's the support.

232

233 % Great,

234

235 # Thank you,

236

237 % Thank you very much for your time and I'd like to invite you if at any time you
238 can think of anything else, please give me a call and umm... I could perhaps listen
239 to your tape and ask you a few questions as well, a bit of stimulated recall...

240

241 # Ja, that's fine,

242

243 % Well thank you very much then,

244

245 # And good luck then with your studies.

246

247 % Thank you, it is now 10:35

APPENDIX H: Hester's interview

1 2nd October 15:07. #

2

3 % #, thanks very much for coming to to talk to me today, uhm, as you know we are
4 doing research about the e learning uptake within the Faculty. And I'd just like to
5 have a chat with you today, very informal, uhm, I'm not going to ask you specific
6 questions, to elicit any responses from you, I just want you to give me your honest
7 opinion, and just have a little chat with me today.

8

9 # Okay.

10

11 % Uhm, I would just like to start off by asking you about how you and your colleagues
12 have been experiencing e learning within Faculty?

13

14 # Okay, %, I cant speak for my colleagues, uhm, I think only M and J is really,
15 working with it and J only in a limited way, M is the only one that's really, so I
16 think the best would be to talk about myself, because, uhm, not one of the others are
17 really involved. They may get involved in the future but at the moment they aren't.
18 Okay?

19

20 % So your experiences?

21

22 # My experiences? Uhm, I think, look I'm passionate about it,

23

24 % Mmm

25

26 # That's important to say that from the start. Uhm, and I'm tremendously interested in
27 the potential of, of e learning. But I think I was one of those people who started
28 with it initially.

29

30 % A-huh.

31

APPENDIX H: Hester's interview

32 # Uhm, without a lot of, uhm, information available, I was one of those... What did D
33 call us at that one thing? Uhm...

34

35 % Pioneers!

36

37 # Pioneers, something like that.

38

39 % Lone rangers.

40

41 # Lone rangers... ja! Uhm, and I find it fascinating and very very useful. In... in my
42 way of teaching, uhm, and learning and assessment. I think that, that, uhm, e
43 learning can be very a valuable tool, in a course. Okay, uhm, and that's been my
44 experience as well, however, I think, uhm, you should have enough time to be able
45 to, to work with it, and I also think that you should have enough assistance to really
46 get it going in a way that you would like to get it going.

47

48 Okay, now let me tell you why I think it's so valuable, uhm, there are a few ways in
49 which it's valuable to me. The first one is generally just on information, providing
50 the students with necessary information, for example, I've sent an e-mail this
51 morning to remind them of an assignment or to post a message on the web
52 regarding the course, or, uhm, general information that's necessary in, in terms of
53 the course.

54

55 Now, maybe you'll ask me what that's got to do with e-learning, it's got a great deal
56 to do with the organization, to be able to, uhm, organize your course and, and talk to
57 people and get queries and questions that can highlight aspects of learning or, uh,
58 challenge aspects of learning and, and, and, so on, it's very valuable to me, so
59 organizational, and, I think that includes contact as well, that I find tremendous that
60 I can be... in contact with students, not only on the day I see them for lecturing, but
61 all over, that, that it's not a question that they must make an appointment, uh, I find
62 it more tedious to have to make an appointment to come in and see them, than to

APPENDIX H: Hester's interview

63 have a discussion, with them on the web, sometimes I find that we get to the issue
64 quicker because we can focus, uh, quicker on, on, on the question that they're
65 asking. Okay, so, information and also then, then contact, with the student, there's
66 more contact, which I, I think in terms of RAU at the moment with the
67 undergraduates to one contact time per week, uhm, to me it's not enough, so
68 therefore with e-learning gives me the opportunity to have more contact with them.
69 So I think you can also hear that I propose, uh, uh, a blended type of, of interaction,
70 that I would want contact with them in the class, but I would also like contact with
71 them on the web. Okay, okay, in terms of, of, of, how I would use it for e-learning
72 and, uhm, one of the things that I've been doing quite a lot you know, is that I've
73 had discussions with them on the web, uhm, and in my own Doctorate, I'm also
74 looking at those discussions, and what's been happening to that. It's absolutely
75 fascinating to have these discussions, ... fascinating to see what's happening in
76 terms of their own discussions, their own learning and so on. You want to ask me
77 something?

78

79 % I was just thinking and wondering, uhm, how much pedagogy does one need to
80 have for teaching in this way?

81

82 # I think you have to have quite a lot, I think it depends very much on, on, your, uh,
83 perspective on learning, teaching and assessment.

84

85 % Mmm (agreeing)

86

87 # Uh, I propose an interactive style, so my style of using e-learning will be
88 interactive, that would be my, uh, most important uhm, criteria, uhm, I would use e-
89 learning to, uh, sound out, uhm, ideas, to uhm, to... gain an insight in to their
90 conceptualization of, uhm, uh, theory of concepts, uh, I would use e-learning to
91 look at, uhm, where they start in terms of, of, their thinking skills, concrete to
92 abstract to see, how, if there is progress, to see if something happens there, but for
93 that I need to, to really understand what my theory of, of teaching, learning and

APPENDIX H: Hester's interview

94 assessment is. I would use it for assessment, I would use it for learning, I would use
95 it for teaching, so again it, it's my style of being interactive, would also make those
96 things interactive and to me within my whole way of teaching, forming a
97 relationship with the student is very important. And I do believe that e learning can
98 facilitate that as well. I don't think that e-learning is a thing where you just sit
99 behind the computer and you are not really visible, I think that you can have a
100 presence on, on the web in, in terms of building a relationship with students.

101

102 % Is this any different than the way that you've done it before, face to face?

103

104 # Look, I think, let me, let me just think about that a bit... I think, uhm, yes... it
105 would be different because I would look at the questions I'm asking, I would look at
106 the assignment I'm giving. Uhm, I would look at being more critical, uhm, ja, it
107 would be, and it would be a bit different, uhm.

108

109 % So have you changed your approach... to teaching in general?

110

111 # I think that, that it makes my teaching more interactive, because I've got more
112 support, would you understand why I say that?

113

114 % Mmm.

115

116 # It's not only a question that I'm in the class, and here I am and I have wonderful
117 interaction with the students, and also here a presence on the web, and with a tutor,
118 there's a sort of good alignment with each other and good support then in, in that
119 way, I, I think that I can support students better now in terms of their learning, if I
120 connected with them on the web as well. It gives me more time to, to do that, ja, to
121 give, uhm, I mean first example: A student will e-mail and say she doesn't
122 understand this and then we can go into discussion about that.

123

124 % Mmm (agreeing)

APPENDIX H: Hester's interview

125

126 # And clarify matters, uhm, or I can say to her, look I think that it's important that
127 you read this, or maybe you must go back to your question, see that you understand
128 it, or that type of thing. Which sometimes I don't have time in the class, and
129 sometimes a student will wait for a long time to get hold of me, to be able to ask
130 this question, where here she can ask it immediately, and, and as I am passionate
131 about the web I, go into it often, uh, at least once a day. So I'm aware, of, of
132 questions that's coming.

133

134 % So, can I assume from what you've just said, that you, you are now using the web
135 more for research as well.

136

137 # Absolutely, uhm, I'm going into it, uh, but not only me, but %, I think the students
138 as well. Because what's happening with the discussions is that sometimes, uhm, a
139 student will say she's found this website, and then she posts a message, then
140 everybody else will see it. And then somebody else will answer back and say "I
141 went into that website,

142

143 % Mmm (agreeing)

144

145 # ...and I found this and this very useful, thank you for that", so in other words it's,
146 it's, it's, uhm, it's escalating that some of them goes in because I'm asking them to
147 do something, then they go in and find something else. Then somebody else goes in
148 and finds something else again, and in the mean time I get that back, and I can go
149 in, or I can go into something else and let them know now go research this, I think,
150 uhm, I've made the students aware of ebsco-host and all the wonderful things that's
151 available, and, uh, they use that, and that, I think enhances their own research. You
152 can have the other thing of course, that they go onto the web and they get short
153 articles and then they think that's sufficient, but again I can let them know you
154 don't, you've got to have an academic article,

155

APPENDIX H: Hester's interview

156 % Mmm (agreeing)

157

158 # ... this is the focus and, and so on. So, uh, what I do mostly is at the beginning of a
159 term or semester or what, we have a session in the lab, and then I go through the
160 websites with them that I think is applicable, for, for our situation.

161

162 % And you personally, you've now spoken about the students, what about your
163 personal use

164

165 # Oh man, I love the web man.

166

167 % (laughing)

168

169 # (Laughing) That's why I'm so worried about this, this notice that's going around
170 that we won't be linked. Because I mean the time that I usually spend is at night,

171

172 % Mmm (agreeing)

173

174 # That's when I have time to go and sit down, uhm, and to go, and, and, and, find out
175 about something that's, during the day has come up. Uhm, I, I, lets, lets take an
176 example: I've been to the SAISA conference last week, so from there, there would
177 be people who's given me ideas, given me their websites. I immediately go onto
178 that website, I go and see, but what have they done. Contact, uhm, from that website
179 as you I'm sure know you get other links,

180

181 % Mmm (agreeing)

182

183 # ...and I've often found myself in the situation when I start say about seven o'clock
184 at night, and at twelve o'clock I'm still busy following up links, getting things, uhm,
185 uhm, researching something useful, getting another link, uhm, printing,
186 downloading, uhm, ja, no, I just find it absolutely fascinating, and, uhm, I'm

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187 passionate about it. I've said that a lot of times this afternoon, but I think that, uhm,
188 it's so useful, so relevant, it's THERE... IMMEDIATELY, at that moment if the
189 server is not off and so on, but it's there immediately. I sometimes cannot go to the
190 library at that stage, and then the web is useful to find something that I need to find
191 out about.

192

193 % And, uhm, what are you, how do you currently experience the institutions' e-
194 learning environment?

195

196 # I still think that some people, on the one hand are afraid to use it because they don't
197 know how, on the other hand they've got too much to do... and on the other hand,
198 not to wait too long instead of going in and doing something.

199

200 % Mmm (agreeing)

201

202 # Uhm, ja, it's like, uhm, first you must plan for a year or two, then, uh, do stuff. I'm
203 unfortunately... well fortunately I'm not that way. I like to climb into a thing and
204 find out about it, uhm, so ja. I think a lot of people, uhm, because of being unsure
205 about it, even though we've had that, that session now, uhm, with, with SOLA and
206 so on. Uhm, uhm, even after that I find that people are still not going to go into it
207 because they want to plan it... in some ways too much I think, uhm, uhm, and I
208 think sometimes you've got to go and start, even if you start with one thing and then
209 develop it from there. But if you don't start, I get the impression you're gonna leave
210 it.

211

212 % Well, you said you climb in and find out about things. Is that how you started? How
213 did you get started? Initially?

214

215 # No, I just started and that's what I did, ja uhm, with education 2B, it's about four
216 years ago, uhm, I just basically thought, okay, lets see if we can use it, and mostly at
217 that stage it was for information purposes, uhm, from there it, it developed. And,

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218 and, at the moment, in reading about it, I think that I can do much more with it,
219 uhm, this year has been difficult with the implementation of the B- Psych's, so I
220 couldn't spend enough time on it and I don't have the tutor that I've had for the last
221 three years. Who's been wonderful, who, like me, and I think this is important, is
222 also interested, so the tutor that you have available for, uh, WEBCT group, must be
223 interested and, uhm, and as passionate as you are about it, cause otherwise it doesn't
224 help. Uhm, so she, uh, eventually I mean after the first year, she was just as
225 passionate as I am, she knows what she must do, and, uhm, uh, so between the two
226 of us we could really run it, and she would come with other ideas which I could
227 now use again. That was nice to have that interaction, this year she wasn't there and
228 I didn't have time to train somebody else, I think this year I took a dip, in terms of
229 my, uhm, e-learning and I'm very sad about it, because I found that the most,
230 interesting articles about new ways in which I can use, uhm, e-learning as a tool.
231 Uhm, the way I can use discussions and, uhm, other aspects in, in terms of e
232 learning.

233

234 % I'm sorry to hear about your tutor disappearing, but do you believe it's important to
235 have someone like that,

236

237 # Yes.

238

239 % ... who share, who shares the passion? That, that that's what...

240

241 # Yes

242

243 % ...I read from what you said.

244

245 # Ja, ja I absolutely believe that you should have somebody, who can share it with
246 you because otherwise, uhm, it doesn't help to have somebody who, who, who sees
247 it as a shlep, and who's not interested in it, not, uh, it should be somebody who

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248 would be, uhm, willing to go in and read the discussions when you can't do it and
249 be able to tutor when you can't and be involved.

250

251 % Have you thought about using other staff members to do that role?

252

253 # No. No, uh, at the moment there's not, uh, someone available. (laughing). I mean,
254 uhm, if you're talking about supporting, in terms of discussions, a colleague in my
255 group, no that's not possible. If you're talking about support in other ways, uhm, I
256 mean, uh, a lot of you who are down here, yes, then that's always available, I know
257 that. So, uh, I don't find that, uhm, I prefer to come to the people here, rather than to
258 go outside cause I think the people here have got a better idea of, uh, what you want
259 and what you're doing and where you would be going.

260

261 % Mmm. Just to go back to a little bit earlier in that piece that you just spoke about,
262 you said your interest just developed and then you, you cut it short there, I'd like to
263 know about this development, how did you develop after you climbed in and just
264 began?

265

266 # Uhm. Okay, I'll have to think about that a bit,ja, I think the whole idea, uh, uh,
267 which is also part of my D, is that, uhm, what I did was, uhm, want to, to just stay in
268 touch with them is to, the times when they are off campus. For example, teaching
269 prac and so on, to have discussions about, uh, with them about aspects in the
270 teaching prac. That's one aspect of the prac, uhm, another aspect that I developed
271 was for example, to, uhm, to take discussions and ask them to assess these
272 discussions according to criteria. Another thing was, as I said previously to bring
273 them into the lab and to go through websites with them, which is relevant to our
274 particular field, for example; to go to the, uhm, American Psychological
275 Association, and to take an article there and to discuss it with them, uhm, or ask
276 them to comment on it, or, or uhm, I'm thinking quickly now because I can't
277 remember everything, uhm. Or to go for example to, what did I do the other day? I,
278 brought the guys here and I asked them to go into a specific website, and, uh, then

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279 to write comments to me, critical comments, those types of, of, of thing, interactive
280 things, uhm, ja, not in terms of their research, more interactive things. %, I can't
281 remember now, I'm trying to think very hard here. (laughing) Uhm.

282

283 % Well, from what I've heard you are, your always concentrating on the students, it
284 seems to me that the students are very important, and what they think and feel is
285 important to you.

286

287 # I think that what you're hearing is what I have to refer to earlier on that, uhm,
288 especially referring back to Rogers and his freedom to learn, uhm, Carl Rogers had
289 a profound influence on me, uhm, and, uh, not only, in, in Educational Psychology,
290 but also in learning and again he emphasizes the role of a relationship between the,
291 uh, facilitator of learning and the learner themselves, I think, uhm, uhm, that's why,
292 I would focus on that.

293

294 % If I had to ask you about, uhm, your role more specifically if we now ignore the
295 students and concentrate on you a bit.

296

297 # On me, as facilitator?

298

299 % Mmm.

300

301 # What would you, want to find out about me as a facilitator?

302

303 % Okay, uhm, knowing what you know now, would you have done things any
304 differently in your e-learning endeavors?

305

306 # I think so.

307

308 % The way you developed perhaps?

309

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310 # Ja, uhm, I think what I would do now in the next year is to bring in new aspects
311 which I haven't done before, and in that sense I've read a lot about the work of
312 Richard Wall, uhm, from America, who is in the field of Educational Psychology,
313 and, and he's brought in some, well, he's, he's got some very interesting stuff in the
314 way that he goes about to work in e-learning, the other guy, is, is, uhm, John Cowan
315 of, I think it's the university of Edinburgh, and he talks a lot about reflection in
316 learning journals, something in which I'm very interested in, online, which I've,
317 and also online portfolios, from#, Helen...what's her name? Woman in America...
318 that's really on the foreground of Online portfolios, so I think for the future I've
319 started for this year but, it didn't work out, uhm, with the master students, uh, the
320 system was off and, uh, there was that non, nonsense, uhm, but next year to, to, go,
321 especially with the master students, uh, planning, I've planned that already and
322 informed them to go online portfolio, and online learning journal, uhm, and, uh, I'm
323 busy setting that out exactly what I would like in that online portfolio and learning
324 journal and so forth. Uhm, and there's one of the stuff on online portfolios in terms
325 of reflection as well, and in terms, of, of learning, uhm, and I would like to
326 investigate that more, uhm, I've done the research in terms of, of, finding the
327 information on, on, on, the web and so on, but to, to, to implement it, uh, uhm, I
328 need some time to do that. I've got nice ideas, uhm, which is said in all those
329 articles which I can't remember now, but I know that there's a file, and that file says
330 e-learning for 2004 and ideas to do, *en, ek kan om die dood nie nou onthou nie, wat*
331 *dit, dit is nie*, but I know that, that, that, it's, it's wonderful stuff that I haven't used
332 before and I would like to implement now. I think in terms of that, I don't think one
333 can stagnate it, uhm, the whole, uhm, web changes so much over time, that, uh, you
334 must stay abreast and to stay abreast you must also continuously change what your
335 doing, uhm, so if I use for example discussions again, I'm gonna look at it
336 differently, I'm gonna look at the way which I can, uhm, apply it differently, ja, so
337 to me it's really a movement the whole time, uh, and I like that, I like that, that you,
338 you, you can find out something new, something relevant, uhm, that you don't have
339 to stay with one thing, uhm, the whole time.
340

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341 % It sounds like you've got great plans for the future now, are, are you going to share
342 these plans, with anyone in particular? Or are you going to go alone?

343

344 # No, I think a lot of that, uhm, I'm also, uhm, uh, in terms of my own Doctorate and,
345 uh, the information that I'm putting in there, so in other words eventually that will
346 also be shared with other people, uhm, ja, and I think what I would like, uhm, I, uh,
347 uh, there's not really somebody, uh, in my program group with who I can sit and
348 say but let's do this, and let's do that, and let's do this, uhm, so, uhm, I, ja, there's
349 not somebody that I'll talk to in that sense at the moment, maybe it would be nice if
350 we had something in, in the departments that we have a group, that can discuss it,
351 but, uhm, I think we know that there's not a lot of people who, who get on to the
352 bandwagon and go for it.

353

354 % I don't know if you recall but you were, you were part of such a group, you were,
355 uh, a person who took part a few times and then that, also stopped... the teaching
356 online

357

358 # Ja.

359

360 % But do you have any other recommendations for enabling e-learning in the future?
361 Within an institution?

362

363 # ...I think something that you said just now, in, in sharing with other people, uhm, I
364 thoroughly enjoyed that workshop that we had about e-learning, because that gave a
365 perspective what others were doing, where we are going and gave ideas, but I think
366 the most important of that meeting was that there was some sharing of what's
367 happening. And, I find, uhm, maybe such a thing would be more worthwhile for
368 me, uhm, that there would be some workshopping in terms of that or another thing,
369 uhm, I found would, uh, work better for me and I also said that to you, uh, is when
370 there's a e-mail to me, and to say just look at this or think about that, because it
371 reminds me that I must go onto the web and, and, uhm, but I do find that, that, uh,

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372 it's been a crazy busy year. And that, uhm, I mean, even friends when they e-mail I
373 sometimes don't get around to answering them. Because it's just been crazy busy.
374 Uh, and ones very much focused on what you must finish and do, and so on. Is there
375 anything more that you want to know?

376

377 % Uhm, is there any one specific e learning experience that comes to mind that stands
378 out in your history as an e-learning facilitator?

379

380 # Mmm, I think that the amazing, uhm, experience that I had, when students went on
381 teaching prac and, uh, they started coming back and discussing with me, and with
382 others, their experiences in teaching prac, and we were not...

383

384 % Was that online?

385

386 # That was online, and that we weren't, uhm, like now, this, this five weeks that they
387 have been away, I've had no contact with them because I had to go overseas to a
388 conference and so on. But usually, normally I have contact with them in that time,
389 and we can keep the learning aspect integrated and going. Uhm, I think the amazing
390 thing was the insight I got into their experiences of practical teaching. So for next
391 year when we do our first internships in Educational Physiology, that's where I also
392 want to, with the B-Psych, want to use the online portfolio end learning journals,
393 because they are gonna be away for six months on, on internship, and I need to keep
394 contact and understand what's happening and see what their learning and see what
395 their not understanding and assess, uhm, and so on, ja, I find those discussions in
396 terms of, uh, their, their being in the real world, and what's happening to them in
397 the real world there and then. And me being here and not able to go to every school
398 but to get an idea of what's happening and what's, what's, what's problematic and
399 what's interesting and what they need support with, uhm, that I find very useful.
400 That was a very nice experience, didn't expect it, so very nice when it happened.

401

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402 % I, I can see you are largely positive about all of this, but has there been anything
403 troublesome?

404

405 # O, yes absolutely, I mean, I remember when we started it, it's now better. Students
406 would come in and complain they can't get into, because of, their own service
407 providers, and they didn't have a specific service provider and they couldn't get in,
408 so that was troublesome. That's better now, uh, students who complained that they
409 don't have, uhm, uh, computers at home and so on. We've sorted that out by saying
410 to them that there's a lab available and that's not an excuse that they should come
411 in, uhm, there's down, the system was down, uh, we don't have access from our
412 homes anymore, that's gonna be a huge downfall. Because I mean I don't know
413 how I'm gonna do it then, because I work at night, so, uhm, ja, those, it's, it's little
414 things, and also I think the important aspect is that I sometimes, because I jumped
415 into it, did not know clearly what I wanted and they didn't understand clearly what
416 they had to do at the, the beginning. I think that we are sorting out.

417

418 % Are you talking about the people that jumped in with you?

419

420 # The people that jumped in with me, the students, ja, if, that wasn't clear to them
421 exactly what was happening and how it must happen, and so forth. Mmm.

422

423 % I don't know if you can think of anything else about your, your e-learning
424 escapades.

425

426 # You can call it escapades ja, uhm.

427

428 % I have nothing further to ask, I don't know if you come up with anything else?

429

430 # No #, thank you. I think...

431

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432 % Then I, before I give you a last chance to speak, maybe I could just ask you
433 (coughing) excuse me. If it will be possible for me to come back for a follow up
434 interview at some stage? If I can think of something, or if you think of something?

435

436 # Ja, you're welcome to do that.

437

438 % Or give you a call and tell me, Oh, I just remembered something and I'll and I'll
439 come and get it from you.

440

441 # Mmm.

442

443 % Thank you very much for being here.

444

445 # Okay.

446

447 % It is now 15:38.

APPENDIX I: Walter's interview

1 15th of December, and it is 8.20 in the morning.

2

3 % #, thank you very much for, being here today, I am going to speak to you, and
4 hope you can provide me with what I want to hear.

5

6 # Ok, you are welcome.

7

8 % And, it's very informal, I would just like you to please start off by telling me
9 about your, how you and your colleagues have been experiencing e learning here
10 at this institution.

11

12 # Ok, uhm, I think you know initially, there was such a big fuss about e learning,
13 you know, everybody said, oh no, you have to do it, because you know, otherwise
14 you know you are going to fall off the bus, uhm, you, you are not at the cutting
15 the edge of learning and teaching, so it was a big thing you know, everybody from
16 all corners just said, you need to have your whole course on the web, uhm, how
17 far are you, how's it going and everything like that and I thought oh God I better
18 do something, (laughing) I don't want to be left behind ok, so uhm, so yes I think
19 I uhm, and I'm very excited, I'm always excited by, by new things you know and
20 by new challenges, so yes, if course I mean I quite liked the idea, uhm, and I
21 thought you know, it , it, it could help me, but it was actually difficult you know,
22 uhm, because you can't really take away the teacher, you know I think it is always
23 important to have the teacher in the class, and this, I always see it as sort of a, you
24 know an aid to teach, e learning is an aid to, to learning and teaching you know,
25 it's not, ... It can not take the place of the teacher, the sense I got, you know,
26 speaking to a lot of people, was that, they're just using the web, the web has taken
27 over their lives, its taken over their jobs, you know, take their place so to speak,
28 and I, I could never figure this out you know, and people kept on telling me about
29 how wonderful this is and you know their life, lives have changed and the lives of
30 the students have changed, and all these things, and I, and for some other reason I
31 could not get it right, you know (laughing) I uhm, what I found was that it was

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32 very time consuming, uhm, and I think partly because, you know, I am not
33 familiar with designing web pages and so on and so forth, you know so it is a fact
34 you know, uhm, and then I think the other part is uhm, you know the definite
35 limitations of what I have experienced right from the beginning, uhm, right, so
36 that was, that was very much the start, I mean, there was a huge pressure from the
37 institution, pressure from colleagues, pressure from the Department, uhm, I think
38 now it is actually compulsory you know to have, to have, to have a presence on
39 the web, so to speak, so uhm, so it was institutional pressure I think you know that
40 uhm, that started off my involvement in e learning.

41

42 % Mmm, you've said that this has taken over other peoples lives, has your life
43 changed in any way?

44

45 # Uhm, you know, what, what has happened is that uhm, ok, a lot of things have
46 happened, but I think what, what came out was that one has to be selective in how
47 you use e learning, you know, and that is something that I came to realize I think,
48 at a point that it was you know, sort of in the beginning it was, ...I was like frantic
49 you know sort of uhm, "have to get it, have to get it, and do everything, and ask
50 for help" and all that, and I felt like a big fool, I can't tell you how terrible it was
51 in the beginning, because I felt totally inadequate, uhm, I felt I needed somebody
52 sitting next to me the whole time holding my hand, uhm, and everybody is busy,
53 you know how people are busy today, they are terribly busy here, so uh, so I uhm
54 I think that was also a main thing you know, sort of that sense of inadequacy you
55 know, you can't, you can't do it on your own you know, it takes up so much time
56 but you have to do it, uhm, let me just get back on track, what was I saying, uhm,
57 ...ja, so I, so I realize that it was, one actually has to use it selectively, you can't
58 just like the other people professed you know, they said that it's completely on the
59 web you know, I, I, I could never figure that out, but it's completely on the web,
60 and I try very much to do it completely on the web, but it didn't work for me, so
61 eventually I did short, selected and selective type of interventions and activities
62 and interactions, ...with, with the students, and that, that worked for me, you

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63 know, and uhm, and, and I am still doing that and it is sort of like uhm, ja, so, so,
64 so that was, that was, that was that.

65

66 % Do you still feel inadequate?

67

68 # No, no, no, not anymore, no no, I really, a lot of things happened, a lot of things
69 happened since then, now, I think the turning point for me was uhm, when I went
70 to a conference in England uhm, Stanfordshire, and, it was on writing, and I first
71 happened... it wasn't a good conference, but I just stumbled across this
72 presentation by four Americans from a, from a small relatively speaking sort of
73 uhm, east coast uhm college, Liberal Arts college and they presented quite a
74 facinating way of going about e learning uhm, it was sort of like, they got their
75 students basically to, to develop what they call "three dimensional writing project,
76 products " and I liked the idea very much and, there I got the sense of, of, the
77 support that you know, that is available at other institutions for example, the
78 director of their writing lab was there, the technical assistant was there, and two
79 presenters of the course were there, and they each told, all four of them presented
80 something you know, and showed how the thing could actually work but, with a
81 three dimensional e portfolio, or electronic portfolio, they said there is tasks, and
82 then while students are doing their research they actually you know created links,
83 for instance if they interview somebody you know, you click on the link, and then
84 you know, the whole transcribed interview would come up you know and so on
85 and so forth you know, so I could immediately see that three dimensionality of the
86 whole thing, and it was absolutely wonderful, I mean you know, I felt like Moses
87 seeing the promised land you know, uhm, and that's certainly what happened
88 when I came back, because, I I, then I tried it here, ans I thought well ok, maybe
89 this is what people mean when they say you know they are completely on the
90 web, this is what they do, and I tried that, but you know it was the, the, the
91 system, the whole structure, WEBCT wouldn't allow for that you know uhm, I, it,
92 it just, so as I say I mean you know, I felt like Moses seeing the promised land,
93 but what happened then was that I actually uh, participated in, in their course, they

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94 invited me to do that, because I was so excited by their presentation that I went up
95 to them. One of the presenters mentioned that uhm, she, she was at that stage
96 teaching a group of art students and uh, she uh, their portfolios are open to the
97 world you know, it's not confined to the students enrolled for the course, you
98 know, reading and commenting and participating and adding to the three
99 dimensionality of the whole thing, uh, so she had people all over the world
100 participating, reading their stuff and when she mentioned uh an art critic in Paris
101 and I thought well ok, that's my entry, and I went up to her afterwards and I said
102 to her well I am an art critic in Johannesburg (laughing) and I'm very interested,
103 and she welcomed me with open arms, I was on the course, uhm, and I, I read
104 their stuff, quite amazing stuff, because you know they, they had visited people
105 speaking about uhm, art, dance, drama, the whole lot, and then the students
106 obviously had to write about it, and then I and the fellow students actually
107 commented on that, uhm, I had to, I, I, I learned quite a lot, I mean you know it
108 was like a learning curve like you can not believe I mean, one week, I knew how a
109 three dimensional web page, a "web log" they call it, worked you know so that
110 very exciting, uhm, and reading the students stuff, commenting on it, getting
111 feedback from the students, that was very nice, I mean I really really liked that,
112 and uh, here I couldn't do it you know, that is what I had in mind, and that to me
113 is what ideally what I wanted to do, but uhm people just looked at me as if I was
114 mad you know and sort of like, what, what is it what you are trying to do? So
115 WEBCT, e learning here in this institution to me became sort of like a glorified e
116 mail correspondence, you know, so so I thought well ok, maybe I should resign
117 myself to that, uhm, and then just explore that, that type of thing. Ok, now, then I
118 left e learning, I mean you know I, I just didn't do it for, for about four or five
119 months and I got these little notes from the people saying uhm, the very quiet
120 presence on the web (laughing) so, so I thought I must do something, so uhm, at
121 that stage then people started offering uhm, courses, I think D was one who
122 offered a course, but I think he then went too far back, you know, its' like starting
123 with Adam, you know, sort of like, what is learning? That is where he started, and
124 uhm, I think the people, well that's my sense of the workshop was that uhm, that's

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125 all good and well, you know, we are in education, we have that in place, and we
126 understand that, uhm, and there was a sort of a presentation of technical stuff,
127 uhm, from SOLA, these people at SOLA, and then I made an appointment with
128 one of the tutors there, tutor or I don't know what official or whatever their places
129 are but in any case, and then she said to me well look, these are the steps, ok now,
130 then I, then I realized you know sort of like, these are the possibilities of WEBCT,
131 these are the limitations, and what I got from her that nobody else told me was
132 that its really only expected of a person, of a lecturer to have something like
133 twenty percent of their course on, on, on the web you know, and I thought oh my
134 God, I got the impression that it must be a hundred percent, and everybody said
135 they are a hundred percent on the web (laughing) so, so it was very funny when I
136 realized that, here I've been blaming myself, chastising myself for feeling so
137 inadequate, uhm, and really racking my brain and thinking of ways of uhm, you
138 know uhm getting myself hundred percent electronically available to my students,
139 then she said to me, no, no, no, no no. it's only twenty percent of your course you
140 know so, then I heaved a great sigh of relief, next year I mean I will go through
141 those steps with her, because now I realize what the limitations are there's a
142 whole list, a fat file, you know she gives a fat file like this, there is a whole list of
143 interactive things that you can do with your students and I mean you know, they, I
144 mean I can work with that, uhm, its still, I know still a lot of limitations there I
145 mean let's still can do "x" that you can do with your students and with your
146 teaching and with ... helping with e learning and so on and so forth, but uhm,
147 that's fine that's fine you know I uhm I realize the limitations and possibilities
148 and I'm gonna keep that.

149

150 % So how much pedagogy do you need in this, in this way?

151

152 # Uhm, well you see, you know uhm, pedagogy, pedagogy, you know, I think, I
153 think its, with, with one's experience you know uhm, you know, you know, what,
154 what are the possibility of of a learning aid uhm, and I think it is a way of sort of
155 like integrating it with uhm with your, with your teaching personality, uhm, with

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156 what works for you, uhm, what you know, the students, the students will benefit
157 from, that, that's how I would like to see it and use it, you know, sort of like uhm,
158 it opens access uhm, students seem to like it, from what I know and they're very
159 quick to say, well you know you said it's going to be on the web but it is not you
160 know so, uhm, I know that they're forever on the net, they check you out, and
161 uhm, and so on and so forth, you know, so, so so in that way I think with, with
162 with ones own teaching style and personality and beliefs of uhm, you know, of
163 learning and teaching and pedagogy and the whole lot, uhm, I think if it is
164 integrated and it works for you that's fine.

165

166 % So are you teaching any differently to, to the way you did before?

167

168 # You know, I'm forever thinking of possibilities you know, uh of you know, it is
169 there, and I think that's probably right from the beginning, you know when people
170 just went overboard with this thing, uhm, how can I use it, how can I, you know,
171 develop something for the learners on the web, so you know so it's always at the
172 back of my mind, is this something, this lecture, or this series of lectures you
173 know, would it have been better on the net or not, you know, would they benefit
174 more from me standing in front of them, or from doing it in class or so, so
175 forever, it is always in my mind you know sort of like, what about the web, what
176 about the web, what about the web, so I think it has penetrated my conscience
177 (laughing) and my consciousness. So...

178

179 % Now tell me, have you only used this for teaching, what about using e learning for
180 research or management?

181

182 # Ja, management, it's, it's uhm, it's, not really, not really, I think uhm, one has
183 become very reliant on you know, people to do that for you, you know, I like to
184 have a class list and write in the marks by hand and you know, erase it, and I'm
185 sure the computer can also do that but, you know I have it in my filing, (laughing)
186 in my filing cabinet and that works for me, you know sort of like uhm, my marks,

APPENDIX I: Walter's interview

187 I'd like to manage electronically, now I know you know it's more transparent, but
188 uhm, uhm, you can make it confidential, the whole lot but uhm, management, I
189 think uhm, I'd like to do it manually, ja, the other part, what was that?

190

191 % Research?

192

193 # Oh research, yes, yes, yes, no uhm, I actually get the students to do small research
194 projects, especially about reading, uhm, you know, I for instance what I do is, I
195 uhm, one of their reading projects is to read uhm, four novels on the booker prize,
196 list, you know uhm, booker prize being has been existing since 1968 and uhm, I
197 believe that they should shift from personal reading to academic professional
198 reading but to start that I stress their personal reading, they all profess to be great
199 lovers of reading, but they read their prescribed books for English, 1, 2 and 3, and
200 Honors, and those are their favorite books, surprise surprise, and uhm, so, so I try
201 to move, to read more, those, uhm, all those things are on the web, you know who
202 the winners were of the past 25 years and who were short listed and who were on
203 the long lists and the reviews of these books and so and so and so, there are a lot
204 of websites where they actually access this information, and that's their project
205 you know, sort of like to choose four winners or shortlists or whatever, and then,
206 and then check what, what is out there, read the stuff, and then, and then do
207 something else, but what I found is that in a lot of cases and I would say it's it's as
208 high as 60% they plagiarise you know they uhm they simply dump a review, uhm
209 , ... (coughing), which irritates me though, so so ok there you know that's a
210 limitation, you need to change that you know, and as a result, the nature of the
211 assignment changes so it's not only writing a review on this novel, but interview
212 the main character, you know, and immediately, or make a poster you know, so,

213

214 % Could I interrupt there and ask you, so you actually adapted your teaching there?

215

216 # Yes, yes,

217

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218 % Just to suit the medium?

219

220 # Yes oh absolutely, absolutely ja no that's very true, ja, ja, no I had to because you
221 know I, you know it's so annoying if you read assignment after assignment and
222 you know you know they are just plagiarized so, so yes, they can get the
223 information there, it's actually you know just to wet their appetite you know to
224 say, ja, this looks like a nice novel because people have written highly about it
225 they recommend it highly let me go for it, you know but, uhm, then then, it's a
226 long term, its part of a bigger portfolio this reading assignment we are talking
227 about, so it's a long term thing, they get it on the first day and they will do it the
228 day before it is due in October, they start dumping, you know just like
229 plagiarizing so I think that is uhm, ja, ja, that is uhm, it's a student
230 thing I suppose uhm, but uhm, but my own teaching thing also I think changed as
231 a result of that, so just like to prevent them, to realize the, the, the the limitations
232 you know and the obstacles, for students.

233

234 % Now what about your own personal research?

235

236 # Ja, ja, all the time, I mean you know, it's basically for references, uh, to uh, to uh,
237 to keep up to date and sometimes if you are lucky you get a full text available you
238 know electronically so which is, which is a plus, but it is just to see sort of like
239 uhm, the latest stuff, you know uhm on writing centers, that's that's the research
240 I'm doing, but but for any other thing sort of uhm, when we wrote the book on
241 research methodology you know, I had to write a chapter on uhm the theoretical
242 frameworks and the web was indispensable you know, sort of like, ja, that's
243 that's, that's that's really it, I, I, i always you know, start with our own library you
244 know because you get a quick sense you know, sort of uhm, they have a lot of old
245 stock, but you get a quick sense of what they are, and there they are also linked to
246 a lot of databases you know, electronic databases and I do that all the time you
247 know, so ja, no, no I use it all the time.

248

APPENDIX I: Walter's interview

249 % And, do you think you would have any recommendations for others in the Faculty
250 to enable e learning within this faculty?

251

252 # You know I, I think its just sort of, to come to terms with it you know, just to
253 uhm, say"look uhm, this is a, this is a good aid, uhm, and uh, I'm going to crack
254 it, and I will take it one step at a time, and uhm I don't feel as if I need somebody
255 by my side the whole time", you know, so uhm, you can, you can work you know,
256 I think initially it was a, you know I wanted somebody to sit next to me the whole
257 time but now you know, that person can go now, (laughing) it's uhm, it's uhm, I,
258 I, I'm ok now, what I, what I don't like, is when students say I sent it to you, you
259 know, and uhm you look up and down and left and right, its just like nowhere to
260 be found, you know sort of like, no it must be lost in the system or whatever, you
261 know I think that becomes a convenient excuse, that I don't like you know, uhm,
262 so I think ja, you, you gave them, one group certainly, I think you orientated a
263 session or lesson on how to use it when you want to post something and how to
264 continue when you want to contact a person, so that is necessary you know to
265 have that session and I always try to do that in the beginning of the year, an
266 orientation session on this subject, so , ja,

267

268 % Now in you case, you spoke about two things, do you think it's a matter of
269 gaining confidence or gaining skills?

270

271 # Uhm, I suppose it's a bit of both, ja, I think it's a bit of both, uhm, uhm, ja, I think
272 it was a bit of both. Uhm, ...the confidence has to do with uhm, with the
273 workload, you know, sort of uhm, because you have so much, next year, I mean I
274 have twelve courses, you know sort of like, I have to write twelve new study
275 guides, you know, and twelve web pages you know, so it's tough you know so, so
276 but you have to find ways of streamlining that and, and find your way around so, I
277 think that is that and we have learn to handle that, so that's the confidence, and
278 the skills bit I think uhm, for me certainly came when I uhm when I had to
279 participate across continents so you know, and uhm, and again I mean I asked

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280 most of the people here I asked the people in IT, the webmaster of RAU, and you
281 know the whole lot, I went to all of them and as I say I within a week you know, I
282 uh, I, I got it you know so so, but I think it's it's both, it's both.

283

284 % And knowing what you know now, would you have done anything differently
285 perhaps?

286

287 # Uhm, I think, uh, ...perhaps not,perhaps not be so resistant, you know what
288 I mean, I mean you know, you know it has to be done, perhaps to know, to find
289 out, ja, this is what I would do differently, to find out the possibilities and the
290 limitations sooner, you know because, I had to learn the hard way, uhm, and, it
291 was difficult make no mistake, it was difficult so so I had to learn the hard way
292 and you know, uhm, perhaps you know that the SOLA thing happened, developed
293 simultaneously, it wasn't as if SOLA was in place with their whole manual and
294 steps and tutors and assistants you know, so so, those processes happened
295 simultaneously so uhm, and I think a lecturer walking in now would, would have
296 it easier so to speak you know and I don't know, which is fine you know so but
297 perhaps finding out the possibilities and the limitations sooner I think would have
298 helped and that is certainly what I would have done.

299

300 % Do you think they should find out about these possibilities and limitations by trial
301 and error or should they be given, given the...

302

303 # Look, I think it uhm, well I'm not sorry, because you had to sort of like win the
304 battle so to speak uhm, so, so, for me that was fine, I like a challenge and I took it
305 up, and, uhm, and I won the battle. So that fine, that's fine, but for others, I mean
306 people are different, uhm, some people would give up, in that, that way, or uhm,
307 uhm, would abandon the whole thing, or whatever, and I know people do that,
308 uhm, so, so, if they do know you know, what is available uhm, uhm, then I think it
309 would be better, what I also, I, I also just need to say that, uh, SOLA people
310 actually were very creative uh, I mean after the workshop they contacted the

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311 people who participated in the workshop, which is, uh, most strange, cause
312 usually workshop presentations would say, uh, okay, contact us if you need
313 anything you know, uhm, not this lot, they just say, the next day they said ,uhm,
314 “you were at the workshop, can we schedule an appointment”, and I said “YES”,
315 you know. So, so I don't like that very much, you know so, that's uh, the first
316 time that it happened, you know uhm, uh, which, which I think is, is, is great. I
317 just thought these people are keen, eager and enthusiastic and I can work with that
318 you know that's what they said, ...

319

320 % So, can you say you've learned something from your venture into e-learning?

321

322 # Ja, ja, no, no, definitely, I, I, ja, uh, keep at it I think uh, that's the thing, keep at it
323 and, uh, uh, don't feel inadequate and sort of like believe in yourself and, because
324 at some point I thought, uh, you know, why should I do this you know I have all
325 the expertise? Uh, and now I have to sort of like put my expertise in the closet on
326 hold, uh, put it on the shelf, to gather dust and then you know you learn another
327 skill and another way out about teaching and working, learning at the whole lot
328 and then you know at some point you can take off the shelf again and teach again,
329 it doesn't work like that you know, sort of like I think you, you, cant really
330 separate the two, so, uh, ja, that was, that, that, was a big insight for me, and sort
331 of like a turning point that uhm, when I realized that you don't have to put your
332 expertise on hold, you can utilize that, with, uh, with the electronic...

333

334 % Can you think of anything else any specific experience with e-learning that comes
335 to mind, that...?

336

337 # Uh, no, uh, uh, one of the things, uhm, and, it's a short little exercise but uh, one
338 of the things I, uh, was, asked the students to do was to write about their first
339 memories of reading uhm, it's a short little piece, uh, one page, you know
340 conventional, uh, hard copies language, uh, sort of like one pager, uh, they wrote
341 very touching stuff, you know, and, uh, I also asked them to comment on each

APPENDIX I: Walter's interview

342 others', and uhm, out of that, I mean I realized that, uh, they were really born
343 English teachers, you know they, they really liked what they were doing, you
344 know, and, uh...,

345

346 % Could that not have been done in the normal traditional way?

347

348 # You know I think because it was so personal because it was, uh, it was uh, you
349 know your first, encounter with reading you know, and it was sort of usually
350 mother and child reading stories, listening to stories, and that type of thing, you
351 know it was an intimate thing, and, uhm, I think going around the class, you
352 know, in a conventional setup, now what was yours, and what was yours, I mean
353 that would have been embarrassing, you know, uhm but they've, they really sort
354 of came up with quite amazing, quite personal stuff , uh, and I think it was sort
355 like not losing face on the web. Okay, their name was there, they published under
356 their names, so everybody knew who it was, but I think they just had a, uh, you
357 know they were at liberty to, to really come up with very personal stuff, and, uh,
358 its seems as though the web then gave them that space, that they needed to, yes, to
359 reveal their very personal stuff, but not to be embarrassed about it you know, so,
360 uhm, so, that was a nice place, that was a nice example, uh, uh, uh, it was nice
361 when I read their responses, and to see how intimate those were, and also to see
362 what mature way the other students commented on those, so, so, ja, that was a
363 nice experience.

364

365 % Sounds wonderful, so now...

366

367 # Ja, ja.

368

369 % ...tell me about you and the future, and e-learning.

370

371 # Ja, uhm, I, you know, uhm I, ...there are a lot of possibilities and, uhm, one of the
372 things is, and I haven't mentioned this, this, because I mean, it just uh, I spoke

APPENDIX I: Walter's interview

373 about the teaching bit, but I, also the e-learning also plays a big role in the writing
374 sector that I sort of like manage there, I uh, got a couple of stations and, uh, we
375 have access to the net, and students actually quite like that, they, my tutors are
376 trained to do tracking on, uh, uh, uh, this, uh, uh, you know , on the screen and the
377 whole lot. So, so there I use it extensively, uhm, and then also, uhm, there's this
378 proliferation of online writing labs you know, and some of them are open and
379 some of them are closed, but we access the open ones, uhm, and we also put our
380 students in touch with them, because uhm, that's, uh, what, what I want to do, you
381 know, sort of like a, uhm, proper online writing lab, Electronic writing lab, now
382 we have the physical one but I think we need to move into virtual space. Uhm,
383 there are a lot of our ideas for instance helping students with their reading which
384 they do have difficulty with, make no mistake, you know they, uh, want to focus
385 on their writing and I think you know one can prevent a lot of their writing
386 problems if you help them with reading their way into writing, so that's definitely
387 one of the links that I want to have in my drop down menu, you know, uh, and
388 then there's also grammar, you know now that is something that is not discussed
389 because it has connotations you know, sort of like "black students don't have
390 sufficient of grammar", people don't say it but that's what they , I know that uhm,
391 you know, for me, that's what they mean. Uhm, so I, I want to fix that up as well,
392 and there are no other courses on this campus, to help them with, uhm, with, with
393 their language, so I will probably call it something like language studies instead of
394 basic grammar, you know, uh, I will probably call it uhm strategies...

395

396 % Will this be done through e learning?

397

398 # Ja, all through e learning ja, it will be through e-learning, the Department and the
399 Faculty, are very supportive, you know I uhm, going to all these international
400 conferences, the, the message that is sent out, all the time is that it is extremely
401 difficult for us, to survive financially, uhm, but not here, that is not my experience
402 here, uh, uh, uh, I have a lot of support, financial support, uh, and otherwise, so so

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403 I will develop that, I will do that. Uhm, so, that's that, yes. Uh, then I, I also want
404 to uh, uh, just research e-writing, uh, because you know, uh, one of the things that
405 is often said is that in your academic career, your articles must be, you know, it
406 must not be sort of like a mixed *breddie*, it must be coherent... my anchor is
407 writing it's the writing center, I'm writing about that, it is writing in class, service
408 learning, uh, uh, uh, and writing, and its electronic writing and so on. You know,
409 so, so, so the course is still there but its just these different ways looking of
410 looking and investigating and helping learners with their writing. So, uh, yes, I
411 will definitely at some point write about that, uh, most likely, uhm, based on the
412 experiences of my students, and what they do there, uh, so so definately for
413 teaching, for my own research for the writing center. E-learning is definitely, is
414 going to play a big role.

415

416 % I don't have anything else to ask you, any final thoughts perhaps?

417

418 # Uhm, ja I, I, think, you know the other day I thought, uhm, what is good is to keep
419 on having these sessions these WEBCT training sessions you know, so sort of like
420 at basic and at advanced level you know because people will at some point they
421 will engage with that, you know, because at some point I thought oh well this is
422 silly, why, why, have basic WEBCT course, you know, in this day and age... but
423 then I thought you know at some point somebody who's been you know, fiddling
424 around, and find his or her way to who is now right for this course, and then they
425 would benefit there, but, uh, they don't push it down peoples throats , and that is,
426 that is not the way. And also uh, uh, you know, uh, to support that, that broad
427 vision, if I can call it that, I think it's very important you know, I, I, like knowing
428 that I can come to you and for instance say "God %, just help me with this", or
429 "how the hell must I do this", or "put this on the web" or whatever. You know, so,
430 so I really like that and I really appreciate that. And I know its probably not in
431 your job description and so on and so forth, but that I like, so that there's a
432 collegial spirit, that I can come and so on.

433

APPENDIX I: Walter's interview

434 % Strangely enough I don't know if you recall, but a while ago we developed an
435 online community that was suppose to share in exactly what you just spoke about.
436 We found that there was just not enough inspiration, perhaps they didn't have
437 enough time...

438

439 # Ja, I, I, think its probably its probably time, ja, with that, with that community ja,
440 uh, ja, uh, I mean, you know in the beginning I sort of like participated uh, what
441 was, what, what came up was at one point I used the example of a, you know, its
442 difficult I remember I, I spoke about how difficult it was in the beginning, and I
443 said "God this is like you know, trying to play tennis under water", you know (
444 laughing) And then what happened was, this is very confidential, okay then
445 somebody wrote back and said "no, no, no, no you know, you should it see us
446 water ballet" and I thought God you know , here I'm trying to (laughing) express
447 you know my frustrations with this and then somebody's actually you know
448 trivializing it, and then I thought to hell with this, so, so, that's basically when I
449 stopped, you know I stopped engaging in that community, I just thought, this
450 community does not want me there, they don't want to listen to me... so.. stuff
451 them...(laughing) this is very confidential this, but, okay, yes, ja.

452

453 % That's wonderful. Well thank....

454

455 # Ja, so, so the community, you know I think it was probably that community that
456 ... probably, artificial in a way you know sort of like, uhm, you didn't grow
457 organically and naturally, and I think that's why you got the comments, you know
458 sort of like I think people had a notion of an academic discourse community, and
459 let's just create one, you know and, probably I think that's, that's, why, uh, that's,
460 in my feeling that's why that wasn't successful,?

461

462 % Well thank you so much for that, it is now nine o'clock, thanks very much...

463 # You are welcome.

464

APPENDIX J: Rose's interview

1 Woensdag, die 10de Maart, 13:15

2

3 % Baie dankie # dat jy hier is, vandag wil ek net bietjie gesels oor jou ervaring van e
4 leer opname, jou persoonlike ervarings in die fakulteit, ek gaan nie eintlik baie
5 vrae vra nie ek hoop ek gaan maar net jou storie hoor. Ek wil net- ek wil graag net
6 hoor van jou persoonlike betrokkenheid by en die opname van e leer binne die
7 fakulteit oor die algemeen.

8

9 # Kan ek praat oor n paar jaar terug, want dis waar ek dit ervaar het, as ek reg kan
10 onthou, 2000, het ek saam met n senior kollega ingekom op n kursus, haar hele
11 kursus was geskryf, dat al die leesmateriaal wat die studente moes in die hande
12 kry, moes hulle URL's gaan soek. Dit dink ek was an-, was eintlik n eintlik n baie
13 groot probleem gewees want die studente kon nie leesmateriaal in die hande kry
14 sonder om aan internet te koppel nie, en dit was nag. Is dit te veel?

15

16 % Nee, dis reg.

17

18 # Uhm-Van die probleme, buiten natuurlik die links wat verkeerd getik was in die
19 studiehandleiding, was daar baie keer hoeveel van daardie links wat eenvoudig
20 nie meer bestaan het nie, dit het geweldig frustrasie vir die studente ontlok, hulle
21 het baie baklei, die dosent was ook nie akkomederend gewees nie, die studente
22 was baie onervare met rekenaars, baie studente het ingekom wat nog nooit eers
23 hulle vinger op n rekenaar gele het nie. Van die ander probleme wat daar
24 byvoorbeeld ervaar is, ek praat van 2000, 2001 en 2002, was die beskikbaarheid
25 van die rekenaars gewees. Dit was bietjie voor julle eie rekenaarsentrum hier so
26 goed in werking was, die studente moes baie na E labs toe gegaan het daarso. Um-
27 daar was nie naastenby genoeg rekenaars gewees nie. Daai lokale wat die-wat tot
28 die studente se beskikking was daarso het byvoorbeeld, indien enige was daar een
29 drukker gewees, as hy gewerk het. Ah- wanneer ek gaan kyk het die studente daar
30 in daai toue gestaan en toe het die studente buite die lokaal al gestaan en wag, net
31 om n rekenaar tot hulle beskikking te kry, dan praat ons nie eers van as hulle

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32 koppel aan internet en leesmateriaal kry dat hulle daai goed wil uitdruk nie. Dan is
33 daar een drukker of daar is glad nie een drukker gewees nie, of daar was nie
34 papier nie, daar was net al hierdie probleme. Dit het onnodig, wat my aanbetref,
35 geweldig frustrasie by die studente opgewek, ek dink op die ou end het hulle
36 geirriteerd geraak met die dosente, en ek dink die probleem was eintlik die
37 rekenaar, die e leer daarvan gewees wat ek dink net nie in plek was nie.

38
39 Verder, daai jare was daar baie baie probleme gewees alhoewel lokale by tye sou
40 hardloop 24 uur, 7 dae n week, het baie van daai studente die ervaring gehad dat
41 hulle middag laat of vroeg saans van die huise af inkom om die rekenaars en
42 internet gebruik, dan kom hulle hier dan is die lokale gesluit, dan moet meisies in
43 die nag weer terug ry huistoe. Ek dink nie ons is in n stadium wat ons kan aanvaar
44 studente het met gemak toegang tot internet nie en ek dink dis baie van die
45 probleme en die frustrasie. Um- ek weet ons het deesdae hier n rekenaarlokaal
46 hier wat ons studente kan gebruik, maar as n mens weer se, hoeveel rekenaars is
47 hier tot hulle beskikking, hoeveel studente is hier in al ons Opvoedkunde kursus.
48 Ek dink werklik, um- die beskikbaarheid van n rekenaars, en die slim word wat ek
49 hoor die mense gebruik is die *bandwyte* –

50
51 % (giggel)

52
53 # Hierdie bedieners van ons wat probleme gee, wat tydig en ontydig af is, wat nie
54 gebruik kan word nie, die studente wat van die huise af probeer inkoppel wat
55 probleme ervaar daarmee um- wat ook nie kan koppel nie of wat ook probleme
56 het met die geweldige tyd wat jy mors en die horlosie hardloop aan. Ek het wat dit
57 aanbetref twee seuns wat self hier deur die universiteit is, so ek weet wat dit is, ek
58 weet ook vanuit n ma se oogpunt hoeveel probleme daarmee daar ervaar is. Dan
59 wat e leer aanbetref sal ek se universiteit omdat ek die ervaring het van my eie
60 kinders en kinders se vriende en vriende se kinders wat ook hier is. Hoeveel van
61 die dosente wat sekere werksopdagte en goeters op die web sal plaas, dan kom die
62 studente in om daai goeters te doen, dan is dit nog nie op nie. Jy weet daai- ek

APPENDIX J: Rose's interview

63 weet dit gaan terug miskien na die dosent se swak beplanning of iets toe, maar dit
64 bly vir my probleme wat die studente ervaar met e leer.

65

66 Um- spesifieke probleme wat ons ook gehad het met daai spesifieke kursus, was
67 dat die studente in besprekingsgroepe ingedeel was, en hulle moes op die web,
68 moes hulle besprekings en ja- besprekings doen van die werkinhoud, daai het ons
69 die eerste jaar, is die studente deur die rekenaar ingedeel in groepies van tien, en
70 daar het ons eerstehands ervaar studente wat mekaar nie ken nie, Afrikaans en
71 Engels saam gegooi, daar is in baie baie van die gevalle n probleem met die
72 Engelssprekende studente wat nie die Afrikaanssprekende studente wil
73 akkommekeer in daai besprekings nie, ons het werklik, ek het oor twee jaar
74 ervaring daarvan gehad dat die Engelse studente byvoorbeeld weier, om saam
75 met die Afrikaanssprekende studente in gesprek te tree. Daai houding probleem
76 teenoor die taal. Dit weet ek het die Afrikaanssprekende studente baie negatief
77 ervaar, so dis vir my of die negatief bou op die negatief op die negatief, hier's
78 geweldig baie frustrasie onder die studente.

79

80 Uhm- dan het ek ook met van die studente se ouers ook gesels, wat ouers reguit
81 vir n mens se, jy weet as jy duur betaal by die universiteit om jou kinders daar te
82 registreer en studiegelde te betaal, daar word nie vooruit vir jou gese: "Jy weet, dit
83 sal goed wees as jy n rekenaar en internet en al daai tipe goeters by die huis het
84 vir jou kinders nie", en ek dink ons leef in n droomwereld as ons dink- as ons....
85 wonder hoeveel van die studente wat hier op die kampus rondloop het werklik
86 met gemak vrye toegang tot internet by die huis. Die studente betaal duur om na
87 internetkafees toe te gaan en sulke tipe goeters en dan koppel jy op die ou end en
88 dan is die server af, of wat ook al dis stadig. Ek het oor die jaar ses maande een
89 studiejaar het ek byvoorbeeld my studente geakkommekeer, dat ek die helfte van
90 hulle lesing per per week het ek hulle in E labs geakkommekeer, sodat hulle die
91 tyd in hulle lesingtyd het om werklik voor die rekenaar te sit en te werk. Um- aan
92 die begin het die studente baie sterk daarvan gebruik gemaak, maar na mate hulle
93 agtergekom het hoe sukkel hulle om te koppel, die stadige rekenars, ek moet se

APPENDIX J: Rose's interview

94 die dinsdagoggend groep was nog aanvaarbaar, Vrydae, die Afrikaanse groep was
95 nag. Om vrydag op die internet te koppel op hierdie kampus, is nag. Ek het twee,
96 drie dae terug by die sekretaresse gestaan, wat sy bloot n klaslys vir my wou
97 oproep, en sy het gewag en gewag en gewag... nou as n sekretaresse so sukkel om
98 net iets op te roep op haar rekenaar, wat is die ervaring van die studente wat dit
99 moet gebruik as hulle studie- hoeveel tyd gaan daarin?

100

101 Dan het ek een-um- nog iets wat ek graag sal wil byvoeg is –um- vir elke dosent
102 wat wel gebruik maak van edulink, hulle het altyd tutors nodig om die studente te
103 begelei, en wat die tutors ook alles doen. En dan weet ek hier is ervaring onder die
104 kollegas, jy lei so tutor op, om te doen wat jy wil he hulle moet doen, volgende
105 semester, volgende jaar moet jy weer n ander ou oplei, so dit bly vir my n
106 probleem, so nou het jy nie meer n dosent-student verhouding nie, jy het nou al
107 klaar n persoon tussen in wat gedurig moet verander en almal het frustrasies en
108 saamwerk daaraan.

109

110 Ek, ek is n persoon wat hou daarvan om in beheer te wees, en hoe meer mens
111 betrokke is, maak dit vir my...ek verloor beheer. Um- dan het ek twee goeters wat
112 ek eintlik opgetel het by n kongres wat ek was in Sydney, in Australie wat
113 spesifiek gefokus was op e leer, en afstandonderrig. Die wyse mense daar,
114 proffesore van universiteite van Kanada en Amerika het twee punte gemaak, hulle
115 het vir ons gese as jou studente toegang het op jou kampus, en jy het genoeg
116 lokale en jy kan die studente daar akkommedeer, wat wil jy doen met e learning?
117 Want jou eerste keuse, jou eerste prioriteit is jou oog tot oog kontak met jou
118 studente in lokale as jy dit enigsens kan doen.

119

120 Die ander ding wat hulle byvoorbeeld genoem het is jy begin nie voorgraadse
121 studente met e learning nie, jy begin op nagraadse vlak. Dit sou vir my wonderlik
122 wees as ons huidige M en D studente werklik rekenaargeletterd was en gekoppel
123 was aan internet, dit sal vir my geweldig baie help, want dit is juis ons studente

APPENDIX J: Rose's interview

124 wat jy probleme mee het, hulle is nie rekenaargeletterd nie en het nie toegang tot
125 die internet nie, en alles daarmee saam.

126

127 Um- die ander ding wat ek net wou se, ek is byvoorbeeld betrokke by n
128 voorgraadse klas eerstejaars, daar is in die omgewing van vierhonderd studente,
129 ek het op hierdie stadium, solank as wat ek nie verplig word om dit te doen nie,
130 het ek geen behoefte daaraan om dit op die web te sit, en besprekings, en
131 alleranne goeters op die web te laat doen nie, dit gaan net vir my tongslag oor hoe
132 n mens dit hanteer, en ek hoor van ekstra rekenaar labs wat aangebou word, daar
133 gaan nog twaalfhonderd rekenaars beskikbaar raak, miskien op daai stadium,
134 maar op hierdie stadium verkies ek om dit glad nie te doen nie, my, my ervaring
135 was net te negatief gewees.

136

137 % Sien jy enige plek vir e leer in die onderrig proses hier?

138

139 # Weet jy- wat ek weet van die kollegas se goeters het byvoorbeeld wat hulle
140 verkondig as e leer, is letterlik, hulle verwys ook daarna as *quizzes* – hulle het vir
141 die studente quizzes op op die edulink, en of dit regtig sinvol is, weet ek nie, dan
142 weet ek van die dosente gebruik dit deur die universiteit om byvoorbeeld hulle
143 klasnotas op te sit, ek weet ook nie of dit sinvol is nie, word daar nie van die
144 studente verwag om self lesinglokale toe te kom om interaksie met hulle te kry, en
145 ook van die studente om self te gaan oplees nie. Ek kry die idée, die
146 stu...studente, veral in sommige kursusse deur die universiteit, nie Opvoedkunde
147 spesifiek nie, ervaring op my seuns, die dosente plaas hulle transpirante op die
148 web, so die studente besluit hulle kan dit in elk geval kry, waarvoor gaan hulle die
149 lesings bywoon, hulle mors net hulle tyd, so word daar nie miskien van die
150 dosente se verpligtinge nou ook geskuif na, ag ek sit dit sommer op die web, as dit
151 dan nou nie hierdie week is nie, oor drie weke, maar een of ander tyd voor die
152 toets, sal die studente dit kry. Raak dit nie vir van die dosente n “agterdeur” as
153 hulle nie hulle werk in die klas doen nie, en nie betyds voorberei nie en nie betyds
154 die leeswerk reg het vir die studente om dit maar op die web te sit nie. Vra net...

APPENDIX J: Rose's interview

155

156 % Het jy al enige onlangse ervarings gehad, want hierdie klink vir my asof dit so
157 twee jaar oud is, hierdie;

158

159 # Hierdie is, hierdie is... so twee jaar oud, wat ek persoonlik daarmee gewerk het,
160 ek het wel verlede jaar n seun gehad wat eerstejaar hier op die kampus was, en ek
161 weet van baie probleme wat hy ervaar het...maar dit is n ander Fakulteit.

162

163 % Ek wil nou nog, nog so n bietjie hoor van daai beginstadium, hoe jy betrokke
164 geraak het by e leer-

165

166 # Daai betrokke geraak het by e leer, en die enigste kursus wat ek nog by betrokke
167 was by e leer saam met n senior dosent, professor, um- ja dit was n spesifieke
168 kursus wat ontwerp was soos ek se daar was geen handboeke of ander
169 leesmateriaal werklik voorgeskryf nie, hulle moes koppel op internet aan ander
170 universiteite se links as ek die korrekte woorde gebruik,

171

172 % Wie het dit ontwerp?

173

174 # En uhm- Wie het dit ontwerp?

175

176 % Uh huh?

177

178 # Ek weet nie, julle sal moet weet, twee, drie jaar terug, dit was ek dink, 2000
179 gewees, so 2000, 2001,

180

181 % Wag wag wow wow, dit was nie jy persoonlik nie?

182

183 # Nee dit was nie ek persoonlik nie.

184

185 % O.... so so jy het net bygekome?

APPENDIX J: Rose's interview

186

187 # Ek het net bygekom.

188

189 % O ek sien;

190

191 # Dit was vir ons in elkgeval almal nuut op daai stadium gewees so ons het baie klei
192 getrap,ja dit was vir my n baie slegte ervaring gewees (lag)

193 % Nou... e leer... in die breer, gebruik jy dit miskien vir navorsing of bestuur, jou
194 algemene admin, sulke goed?

195

196 # Weet jy, net vir myself, maar uhm- soort van-ja, gewoon as jy wil navorsing doen
197 of miskien iets gaan soek, en selfs daarso, ek het gister weer gesit, ek wou
198 byvoorbeeld iets soek van en ek het op n soekenjin ingegaan en ag, jy roep
199 onmiddellik n paar hnderd goeters op en dan vind jy uit maar dit is nie wat jy wil
200 he nie, of daar is iets wat belowend lyk en dan kliek jy daarop, en jy wag dat die
201 goed op die skerm gegooi word, en dan lees en lees en lees jy, en dan vind jy uit
202 dis eintlik glad nie wat jy wil he nie. So ek weet nie, ek dink mens raak gou
203 verdwaal op die internet, ek verkies n handboek, (lag) of n vakjoernaal, n
204 vaktydskrif, of iets wat die goed duidelik en reg is en jy weet as jy hierdie ding
205 oopmaak dan gaan jy ordentlike kennis kry, en teorie kry. Terwyl ja, ek weet nie,
206 miskien het ek te min ervaring op die gebied, dis moontlik.

207

208 % Hoeveel kennis van pedagogie, daai lekker woord, het het n lektor eintlik nodig
209 om e leer aan te pak? ... of hoe?

210

211 # In die Opvoedkunde...pedagogie? (keel skoonmaak)

212

213 % Ja..

214

215 # Om e leer te doen, wel ek weet nie, um - ek sou dink hier is baie dosente wat op e
216 leer spring omdat edulink, en alles daarmee saam beskikbaar is, wat nie werklik

APPENDIX J: Rose's interview

217 weet miskien van die pedagogie daragter nie. Ek dink baie leef in n droomwereld,
218 want dis n ding wat van jou verwag word, en almal spring op die wa daar, en ek
219 weet nie of baie van die goed wat op edulink aangebied word vir kursusse deur
220 die universiteit, of dit sinvol is nie, ek het saam met my kinders die meeste
221 daarvan nie as sinvol gesien nie.

222

223 % Ons is nou binne n Opvoedkunde Fakulteit, daar moet seker n kennis wees van,
224 van klasgee en pedagogie oor die algemeen...

225

226 # Goed, vra jy?

227

228 % Enige kommentaar daaroor?

229

230 # Vir my, is daar niks wat ooit daarby sal uitkom as n persoonlike interaksie van n
231 dosent teenoor n student, ek sien e leer as koud en onpersoonlik, maar ja ek kom
232 van uit n sosio opvoedkunde..., (lag) so die persoonlike verhouding met studente
233 is vir my baie belangrik, ek sal liever n student te woord staan en help met werk
234 as wat jy net vir hulle sal se "Daar is vir julle goed op die rekenaar, gaan kyk dit
235 en doen dit en iewers tussen in gaan n tutor wees wat dit gaan nasien en vir my n
236 punt gaan gee, en dit het ook in die verlede probleme veroorsaak, met so n tutor
237 wat tussenin kom, wat punte toeken aan hierdie besprekings van die studente, en
238 dan is die studente ongelukkig oor die punt, dan se hulle maar hoe kan so tutor in
239 ons geval spesifiek wat self nie eers n graad het nie, hoe kan sy n punt vir n
240 student toeken vir n bespreking. So ja, hoeveel van hierdie tutors is werklik mense
241 wat daai kennis het en dit kan doen?

242

243 % Is daar enige suksesstories wat hier uit kan kom?

244

245 # Uit my uikom?

246

247 % Mmm...

APPENDIX J: Rose's interview

248

249 # Oor e leer spesifiek? Nie werklik, wat ek persoonlike eerstehandse ervaring van
250 het of, ek hoor maar van die kollegas se dit werk wonderlik, maar ja, praat maar
251 met die studente en hoor, en ek praat weereens, jy weet ek praat ook van die
252 ander fakulteite, wat kontak het met die studente.

253

254 % Dit klik asof jy baie op jou eie was daai tyd,

255

256 # Ja..

257

258 % Um- wil jy miskien bietjie uitbrei daar?

259

260 # Baie op my eie was...

261

262 % Mmmm...

263

264 # Wel ek was baie op my eie as mede aanbieder of watookal van daai kursus
265 gewees, tweedejaar het ek dit alleen geneem en dit is waar ek met die studente
266 daai sessies deurgegaan het in die rekenaarlabs, en eerstehands ervaar het wat
267 hulle probleme is, so terloops, met ons wat nou in n groot mate afgegooi is wat
268 nou nie meer van die huis af kan koppel aan raumax nie, en alle probleme
269 daarmee saam, het ek gehoor van groot voorstanders van e leer hier, kollegas van
270 ons, wat ook gese het, wanneer laas het hierdie dosente n slag van die huis af met
271 n gewone langpadjie soos n student moet koppel, probeer koppel aan raumax, of
272 internet of watookal, om goed in die hande te kry van edulink af, dis nag, dit vat
273 tyd, jy sit en sukkel daarso, vir my is dit tye wat n student baie beter kan spandeer
274 as hy n goeie studiehandleiding het, goeie lesings bywoon, en miskien n goeie
275 voorgeskrewe handboek het, wat wil jy met e leer maak?

276

277 % So, enige toekomsplanne wat e leer aanbetref?

278

APPENDIX J: Rose's interview

- 279 # Iewers in die toekoms sal mens seker maar terwyl dit die ding is om te doen, seker
280 maar weer met groot benoudheid (lag) die ding probeer aandurf, maar um- ek
281 weet nie of ek kans sien vir n eerstejaarsklas, drie- vierhonderd studente, om so
282 iets te begin nie, as n mens miskien derdejaars of nagraadse studente het, minder
283 studente, meer gevorderde studente, kan ek myself voorstel dat dit kan lekker
284 wees maar om vir studente daai sprong te maak van n matriek, daai eerstejaar wat
285 hulle werklik sukkel met aanpassing en alles wat daarmee saamgaan, en om hulle
286 dan te gooi met e leer...ek weet nie, ek voel op hierdie stadium, solank as wat n
287 mens die studente kan akkommedeer op die kamp- kampus, in die klas, met goeie
288 studiehandleidings, goeie lesingsmateriaal, weet ek nie of ek werklik vir eers wil
289 gebruik maak van e leer nie.
290
- 291 % Wel baie dankie daarvoor, ek waardeer dit, ek weet nie of jy aan iets anders kan
292 dink nie,
293
- 294 # Ek hoop nie ek gaan by die departementele voorsitter eindig en hoor ek word
295 afgedank nie,
296
- 297 % Geen probleme daar nie, baie dankie #, dit is nou 13:32

APPENDIX K: Data sets in tables based on continuity (temporality)

Susan

	Past	Present	Future
Subject	<p>Revealing field of expertise as learning</p> <p>Exploring notion of dialogue in Higher education</p> <p>Admitting relevance of educational background</p> <p>Showing knowledge of ICT tools</p> <p>Exploring new aspects of ICT in education</p> <p>Being exposed to colleagues using ICT</p> <p>Building on the success of others in the faculty</p> <p>Stressing enjoyment of the unexpected online</p>	<p>Expressing comfort with the change</p> <p>Admitting that interest grew as a result of exposure to ICT utilisation in faculty</p> <p>Hearing of successes of other lecturers</p> <p>Making a case for learning new things</p> <p>Expressing interest in new developments in education</p> <p>Changing way of thinking at work</p> <p>Becoming more aware of how she works using ICT</p> <p>Admitting to have NOT done much online</p> <p>Admitting uncertainty due to lack of experience</p> <p>Admitting lack of experience</p> <p>Professing not to have changed teaching methods</p> <p>Using the same old principles for teaching online</p> <p>Recreating what she has always done on the web</p> <p>Expressing comfort with what works</p> <p>Expressing need for support with large groups</p> <p>Showing concern for large groups with no support</p> <p>Placing ICT lower down on personal agenda</p>	<p>Suggesting use of trained assistants</p> <p>Placing emphasis on co-inquiry</p> <p>Revealing possible changes in her life / work situation</p>
Object	<p>Distinguishing between ICT for educational purposes and ICT in general</p> <p>Claiming to use Internet for research</p> <p>Restructuring procedures during research</p> <p>Using Internet for day-to-day enrichment</p> <p>Working on many things simultaneously</p>	<p>Admitting lack of ICT use for teaching</p> <p>Expressing high regard for ICT in communication</p> <p>Stressing importance of increased communication</p> <p>Stressing use of web for communication</p> <p>Improving communication</p> <p>Stressing importance for feedback</p> <p>Claiming that many students do not have access to ICT / blaming SA context</p> <p>Claiming success with small postgraduate groups</p> <p>Using ICT in a supportive role</p> <p>Using ICT for support only</p> <p>Helping students to help one another</p> <p>Placing focus back on learning</p> <p>Placing focus on learning</p>	<p>Stressing need for greater student access</p>
Mediating artifacts		<p>Claiming to use ICT daily</p> <p>Identifying that ICT should be seen as a tool only</p> <p>Making a case that ICT should not be threatening</p>	
Rules		<p>Identifying funding as an issue regarding ICT support</p> <p>Showing knowledge of HEI's vision</p>	

APPENDIX K: Data sets in tables based on continuity (temporality)

Community	Aiming to form learning communities on the web Establishing learning communities initially through contact Sustaining communities online	Expressing confidence in the web for sustaining learning communities Stressing importance of pedagogy Stating that a lack of pedagogy leads to a technical approach Showing awareness of some lecturers perpetuating bad habits online Exposing ICT's potential as a dumping site for content Admitting that lecturer's all think they are experts Stating that lecturers all have something to learn Stressing need for education in the field of ICT Stressing need for support for lecturers Predicting negative situation without support Distinguishing between different kinds of support Acknowledging problems identified by other lecturers Placing demands on lecturers Feeling threatened by ICT Emphasizing time constraints Expressing need for tutors Positioning 'people' as an important part of the ICT environment	
Division of Labour	Focusing on admin and other matters at the HEI	Changing focus from teaching to management	

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Brian

	Past	Present	Future
Subject	Wanting technical ability to update online courses alone Initially feeling uncomfortable with new procedures Actively involved in conceptualising course Not wanting to make excuses Showing exceptional knowledge of course content / Wanting to expose important issues to students Designing to cater for unique SA context Identifying content students usually struggle with Catering for weaker students too Identifying early roots as teacher Remembering how he taught concepts as a teacher at school / Remembering knowledge of teaching from early career as teacher	Being personally involved / Learning by doing / Doing new things Showing knowledge of the development process Being forced to think in-depth and creatively Admitting to learning 'unconsciously' Elaborating on course content / structure of content / Concentrating on explaining course content & important concepts Claiming success at making content clearer to students Claiming that learning is not always easy Acknowledging satisfaction with animations and design Showing enthusiasm about representations that are possible online Making claim to be creative / positioning himself as a creative person / Claiming to be the origin of	Striving to be a better teacher / Exposing fear of being a poor teacher Knowing what he wants to do Wanting to do something different and new Vowing not to stop learning new things Moving away from playing the central role Moving away from 'sage on the stage'

APPENDIX K: Data sets in tables based on continuity (temporality)

	<p>Admitting to having tried different ways of teaching in the past / Expressing boredom with the way he taught in the past Stating that he had never thought of teaching online</p>	<p>all ideas Identifying multiple activities in a course Exposing difficulty of teaching online Admitting to a lot more marking / work Expressing new excitement in his work Unable to explain what excites him Claiming that he can judge if a teaching style works or not Being positive about the outcomes of the course Showing pride in modules Showing amazement at what he has done Speaking as one who has mastered something</p>	
Object	<p>Attending WebCT courses Identifying limitations in WebCT courses Putting a course online Making initial changes to course Doing voice-overs for content Placing some content on CD ROM Getting involved with development process Wanting course to be accessible to all</p>	<p>Conceptualising innovative ways to teach basic concepts online / Identifying novel ways to teach basic concepts online Finding new ways to teach / rethinking concepts Claiming improved subject knowledge through design of online course Claiming that teaching multi-modally is better Describing multi-modal strategy Finding similarities between face-to-face and online teaching</p>	<p>Expressing desire to do more advanced things in future Wanting more interaction and active participation Proposing ideas similar to online tutorials Simulating real life activities Re-conceptualising courses / planning to make changes to course Planning online assessment Wanting to explore ICT in more detail through research</p>
Mediating artifacts	<p>Making conscious decision to use ICT Expressing amazement at the technology Being impressed by animations Expressing frustration with technical issues</p>	<p>Predicting improvement in online facilitation Putting ICT before other work tasks Prioritising daily tasks to include ICT</p>	<p>Wanting more animations</p>
Rules	<p>'Having' to put course online</p>	<p>Being approached to 'convert' others</p>	<p>Placing financial demands on HEI not faculty</p>
Community	<p>Forcing students to get involved practically Making students responsible for their own learning / Getting students to work / Highlighting students having to work</p> <p>Claiming that lecturers procrastinate Making claim that lecturer's biggest deterrent is fear</p>	<p>Finding increased contact with students beneficial Learning from students Expressing unfamiliarity at having limited control over student work</p> <p>Confirming that lecturers can be motivated through seeing examples of what is possible Proposing that some lecturers will learn by simply getting involved Admitting that other lecturers will learn differently Making claim that ICT may not benefit every lecturer Questioning whether lecturers really change their approaches to teaching</p>	<p>Claiming that good students will benefit more</p> <p>Being given the space to be creative will assist lecturers Expecting different experiences from various lecturers Suggesting that forcing lecturers may be the answer / Claiming that forcing some lecturers may not work Claiming that not all lecturers will be excited</p>

APPENDIX K: Data sets in tables based on continuity (temporality)

Division of Labour	Getting technical support from CTLA Using support from outside faculty	Identifying changing role of the lecturer Acknowledging role of the design team Identifying team work through his discourse Saving time through team work	Identifying forces / powers within HEI Exposing demands from management Seeing encouragement as 'subtle force'
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Mark

	Past	Present	Future
Subject	Recognizing early adopters of ICT Following on in footsteps of other lecturers Claiming to be initially uninformed about using ICT / Attempting to improve interaction / Wanting more contact with students / Exposing limited contact with students Wanting to increase participation Not coping, even with tutors / exposing problems with large groups Learning by doing Claiming (wrongly) that CD ROM tutorials are always well developed Accentuating 'teaching' aspects online Seeing education as 'interaction' Exposing a variety of issues related to ICT and teaching in general	Making claim that he does not know enough about ICT Highlighting lack of knowledge of ICT as main cause of failure Seeing ICT as a field on its own Expressing need for gradual staff development / staff training Putting himself in shoes of students Revealing greater work demands Placing blame on lack of time Going back to what worked in the past	Questioning what ICT can do that face-to-face cannot (value added)
Object	Focusing initially on applying technology Reproducing study guide on the web Printing out assignments for assessment Identifying duplication of work online Streamlining courses / Limiting ICT interface Using only private communication		Proposing the use of CD ROM's with tutorials
Mediating artifacts	Identifying incorrect use of ICT initially Claiming to have a lot to learn about ICT Not using full potential of ICT Shifting focus to ICT for communication Using ICT for admin purposes Identifying other components of ICT Proposing getting basic ICT	Admitting that ICT is suitably established at the HEI Expressing uncertainty as to ICT's usefulness at present	

APPENDIX K: Data sets in tables based on continuity (temporality)

	structures in place		
Rules	Raising issue of making ICT use compulsory Making some tasks compulsory Identifying no difference from compulsory participation	Making claim that ICT is not yet compulsory Showing knowledge of ICT policy at the HEI Raising the issue that student numbers are a barrier to ICT	
Community	Highlighting student interaction with one another Exposing forms of cheating online Overloading students with content Overloading students with links Neglecting students due to sheer numbers Exposing lack of infrastructure / logistical problems Experiencing technical problems from home Exposing students lack of theoretical knowledge about ICT Claiming that ICT only helps the better students / exposing totally different nature of the learning process for students Losing interest due to failed attempts	Claiming that lecturers at HEI should note logistical problems of students Identifying SA context and student demographics as a problem for ICT Claiming that some lecturers will not change ways of teaching / Repeating online what lecturers did face-to-face / acknowledging low numbers of lecturers using ICT effectively Exposing lecturers' different approaches Claiming that lecturers do not know enough about ICT / Claiming that lecturers do not have theoretical knowledge of ICT / exposing lack of use of ICT due to lack of knowledge of ICT and education Identifying poor pedagogy by some lecturers online / Needing to adapt pedagogy to teach online Revealing that some lecturers use trial and error when teaching online Claiming that lecturers learn from experience	Stating that all lecturers should have basic ICT skills
Division of Labour	Seeing ICT as someone else's field	Suggesting that ICT is not all lecturers field of expertise / Claiming that not all lecturers can teach with ICT Claiming that ICT support staff approach all problems from a technical point of view Exposing lack of educational background of support staff x2 Learning from educational ICT expert within faculty	Suggesting faculty-based support

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Ellen

	Past	Present	Future
Subject	Revealing short 5 year history with computers / Seeing tremendous growth in herself / Learning from experience Exposing growing confidence Claiming to be self taught in many	Exposing personal limitations with software Showing knowledge of good practice with ICT in education / Changing whole way of thinking about teaching with ICT / Changing	Aiming to publish more on the web

APPENDIX K: Data sets in tables based on continuity (temporality)

	<p>fields</p> <p>Claiming selfish reasons for engaging with ICT / Wanting to research human learning with technology</p> <p>Becoming more creative / Creativity infusing into teaching / Expanding possibilities for teaching</p> <p>Unable to identify what attracted her to ICT in education / Telling story of life-changing events / Telling story of changing focus over many years</p> <p>Revealing pleasantness of initial attempts online / Expressing excitement</p> <p>Finding process hard / Expressing hard work / Admitting to doing too much</p> <p>Being 'put off' temporarily</p> <p>Changing what did not work in the past</p> <p>Learning from previous mistakes</p> <p>Admitting to have attended ICT courses earlier on / Criticising focus of earlier courses / Rejecting the idea of starting with formal courses</p> <p>Seeing theoretical links to ICT at conferences / Needing research to be done to understand ICT / Highlighting limitations in methodology to research ICT in education</p> <p>Not wanting to teach basic computer skills</p> <p>Isolated for many months due to faculty conflict / Affirming her strength</p>	<p>way of thinking about education</p> <p>Expressing knowledge of her general epistemology / Not having to change epistemology online</p> <p>Exploring her pedagogy of learning with ICT</p> <p>Expressing knowledge of teaching /</p> <p>Stating that pedagogy cannot be learned from books / Claiming that changing pedagogy impacts on everything else</p> <p>Expressing need for guidance /</p> <p>Needing very specific support / stating that working alone is unhealthy /</p> <p>Needing educational ICT expert x2 (security) /</p> <p>Expressing insecurity if left to own devices /</p> <p>Needing to know there is backup & support</p> <p>Expressing surprise at lack of ICT uptake in faculty</p> <p>Comparing blended learning to a stew</p> <p>Stressing interaction in education</p> <p>Cautious of new ICT opportunities</p> <p>Showing preference for post graduate students / smaller groups</p>	
Object	<p>Wanting to transfer content directly into ICT course / confirming cannot be done</p> <p>Identifying problems with good design & poor use of ICT</p> <p>Streamlining second attempt with ICT</p> <p>Refining / reinventing courses</p> <p>Using WebCT tools more smartly</p> <p>Experimenting with tools in WebCT</p> <p>Implementing smaller ICT component</p>	<p>Stating that knowledge of teaching cannot just be transferred to ICT</p>	<p>Matching approach with what she wants to teach /</p> <p>Changing pedagogy by blending methodologies</p> <p>Planning teaching events</p> <p>Combining face-to-face with ICT</p> <p>Becoming more flexible in the design process</p> <p>Conceptualising collaborative course online x2</p>
Mediating artifacts	<p>Expressing fascination with ICT /</p> <p>Seeing ICT as a scary experience</p> <p>Wanting badly to get involved with ICT</p> <p>'Living on the web'</p>	<p>Understanding ICT but not technically proficient /</p> <p>Making distinction between technology and learning</p> <p>Finding link between learning & e-learning</p>	<p>Rejecting idea of only using face-to-face teaching</p>
Rules	<p>Mentioning government policy</p> <p>Showing knowledge of HEI policy on ICT</p> <p>Recognising that requirements for ICT are spelled out by HEI policy</p>	<p>Revealing power relations at HEI /</p> <p>'will not give credit where credit is due'</p> <p>Exposing policy makers as non-educators</p> <p>Identifying publication on the web as an achievement</p>	<p>Recommending applying for research funding</p> <p>Claiming that SA cannot afford to stay behind</p>
Community	<p>Stressing student engagement, freedom, & security</p> <p>Finding more value in student talk than faculty talk</p>	<p>Claiming that lecturers cannot be forced /</p> <p>not everyone will engage with ICT</p> <p>Invited by colleague to do ICT</p>	<p>Recommending teaching by example /</p> <p>faculty show and tell events</p> <p>Exposing need for mentors</p>

APPENDIX K: Data sets in tables based on continuity (temporality)

	<p>Identifying changes in the minds of students</p> <p>Identifying students' misuse of the tools / need for computer literacy and CMS training</p> <p>Making technological / financial demands on students</p> <p>Remembering conflict situation with students</p> <p>Claiming that lecturers do not know enough</p> <p>Exposing lecturers' fear of change / some will not change</p>	<p>research in education</p> <p>Associating with international leaders in the field / Involving subject experts online / Revealing contact with well known authors and researchers online</p>	<p>Proposing learning by doing / stating that pedagogy will change only due to hands-on experience / proposing learning by experience / experience is the key</p> <p>contacting subject experts online</p>
Division of Labour	<p>Moving over from different field in faculty</p> <p>Rejecting role of CTLA / Exposing shortcomings of support staff / lack of theoretical knowledge / Support staff taking the heart out of technology / criticizing non-faculty support staff / showing uncertainty in abilities of support staff / admitting she would not use support staff / showing concern at CTLA contributions at conferences</p> <p>Identifying staff aggression as reaction to threatening situations / Noticing negatively changing attitude of colleagues at others success / Claiming to have been victimized by colleagues / Expressing suffering at the hands of colleagues / Identifying bias in gender issues / Identifying conflict in faculty over ICT</p>	<p>Affirming senior status in faculty</p> <p>Claiming not all work in faculty is good</p> <p>Affirming good ICT work in faculty of education</p> <p>Impressed with open, vibrant educational ICT community in department / feeling comfortable in micro-situation in faculty</p> <p>Trusting educational ICT staff only / Working with staff with teaching background only / becoming part of a community that promotes thinking / Enjoying an active community / Stressing importance of belonging to a healthy community</p>	<p>Proposing high quality work and research x2</p> <p>Exposing potential for research on learning</p>

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Irma

	Past	Present	Future
Subject	<p>Forced to learn quickly</p> <p>Expressing difficulty of learning new things</p> <p>Taking over existing online course</p> <p>Using what existed on the course</p> <p>Attending a basic WebCT course</p> <p>Repeating WebCT course</p> <p>Unable to tell support staff what is needed due to lack of technical knowledge</p> <p>Wanting to use the tool without technical knowledge</p>	<p>Claiming limited time for learning new things</p> <p>Listing existing WebCT tools</p> <p>Seeing no need to do advanced course due to basic nature of interaction</p> <p>Keeping a technical support journal</p> <p>Downloading the WebCT manual for backup support</p> <p>Claiming success with teaching with ICT</p> <p>Placing responsibility on students</p>	<p>Questioning whether technology is her responsibility</p>
Object	<p>Changing course in second year</p> <p>Making life easier by working smarter</p> <p>Finding strategies to save time & effort through communication</p> <p>Using communication tool more</p>	<p>Making administrative tasks easier wrt students / Saving time</p> <p>Prescribing e-journals in courses</p> <p>Projecting the 'self' into ICT</p> <p>Conscious of projecting teaching style through ICT</p>	<p>Designing in advance</p> <p>Wanting to keep one step ahead</p>

APPENDIX K: Data sets in tables based on continuity (temporality)

	Enhancing teaching with ICT Doing a bit more every year	Giving 'heart' to the technology Re-packaging course content	
Mediating artifacts	Claiming to initially know nothing about ICT	Stating that ICT is just the tool Wanting to be adequately proficient Claiming to be using another 'tool' Claiming that using ICT does not take intelligence but demands emotional intelligence (attitude) Claiming that technology can take away your dignity	Stating that ICT is here to stay
Rules		Identifying power relations between faculty members Identifying power games between support staff and lecturers	
Community	Supported by original designers of course Working with colleagues within faculty Receiving assistance from faculty member Rejecting ICT support staff Feeling unsure of job description of ICT support staff Unable to put a name to ICT support staff Questioning duration & content of WebCT courses	Getting quality time with students Using support staff but fixing own problems Feeling better about fixing problems 'alone' Needing 'on-demand' support Demanding better support Showing interest in how lecturers react to new technology Professing teaching by example	Demanding that lecturers make an effort Claiming that teachers have a responsibility to keep up to date & learn
Division of Labour	Claiming to be the subject expert	Wanting to remain the expert Clarifying roles of lecturer & support staff Claiming need to integrate coursework Making conscious choice to improve status	Needing to break boundaries between staff

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Hester

	Past	Present	Future
Subject	Not being able to speak for colleagues Being aware of lack of ICT uptake Claiming to be an initial user of ICT Needing time to gain experience with ICT Stressing need for assistance in getting started Making claim that starting off is the hardest part	Getting more time to focus on specific student issues Working at night on the web Losing track of time when engrossed in ICT work Neglecting other tasks due to workload Impressed with web being available on demand Learning by doing Showing fear of stagnation	Proposing workshops in place of courses Seeing show & tell sessions as an option Needing reminders in email about ICT related activities

APPENDIX K: Data sets in tables based on continuity (temporality)

Object	<p>Focusing on content Progressing from content dissemination Using communication tools for admin purposes Stressing organization of course Saving time by not having face-to-face appointments Getting to the point quicker using ICT</p>	<p>Proposing to use a blended course Analysing course discussions Infusing theory of teaching into ICT Using f2f sessions for ICT training Keeping up to date with developments in ICT Using WebCT tools differently Using different tools all the time</p>	<p>Suggesting 'new' uses of the web for teaching Planning to implement new ideas Planning ICT activities for following year</p>
Mediating artifacts	<p>Seeing potential of ICT x2 Seeing potential for ICT in teaching Stressing interaction in teaching with ICT Listing benefits of ICT over face-to-face teaching</p>	<p>Demonstrating enthusiasm about ICT Stressing passion for ICT Seeing ICT as a tool Claiming 'love' for the web</p>	
Rules	<p>Showing concern over policy that stops lecturers subsidised web access from home Mentioning demands placed on students, technical & financial</p>		
Community	<p>Enjoying being in touch with students / aiming to be in contact with students / enjoying contact when students are away on prac Claiming to have more student contact Building relationships online with students Emphasizing role of relationships in education Getting an idea of students' worlds through ICT Listing students' technological problems</p> <p>Exposing lecturers fears of ICT</p> <p>Disclosing importance of a dedicated tutor / help by motivated tutor Learning from tutor Losing tutor slowed process down</p> <p>Exposing lack of knowledge of ICT support staff from CTLA</p>	<p>Providing better support for students Revealing greater involvement from students Focusing on student thinking Making the research process easier for students Identifying interaction between students and ICT itself</p> <p>Making contact with international scholars Including work of international scholars in her course</p> <p>Identifying full work load of lecturers Claiming procrastination of some lecturers Stating that some lecturers plan too much</p> <p>Not having time for training new tutor</p>	
Division of Labour		<p>Revealing availability of educational ICT 'experts' within faculty for support Stating preference for faculty-based support Stressing lack of interested parties in department</p>	<p>Wanting to know what other lecturers are doing with ICT</p>

APPENDIX K: Data sets in tables based on continuity (temporality)

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Walter

	Past	Present	Future
Subject	<p>Not wanting to be left behind</p> <p>Expressing excitement at new challenges</p> <p>Highlighting role as a teacher</p> <p>Claiming knowledge of teaching</p> <p>Questioning teaching approaches with and without ICT</p> <p>Admitting to struggling initially</p> <p>Telling story of struggling initially with technology</p> <p>Feeling inadequate</p> <p>Feeling initially alone</p> <p>Starting off with no support</p> <p>Wanting support all the time</p> <p>Identifying 'turning point' at conference</p> <p>Seeing all dimensions of ICT in education at work for the first time</p> <p>Being exposed to a real life example of ICT in his field</p> <p>Participating in a real online course / actively involved / learning by doing</p> <p>Learning a lot from participation in a course</p> <p>Unable to reproduce his vision at the HEI</p> <p>Temporarily giving up with ICT in education</p> <p>Attending courses on teaching online</p> <p>Feeling patronised by level and focus of course</p> <p>Attending a more technical course on WebCT</p> <p>Being exposed to the tools of WebCT</p>	<p>Stressing time constraints as a lecturer</p> <p>Claiming full workload</p> <p>Resigning to the fact that work has to be done</p> <p>Admitting not being 'technologically strong'</p> <p>Discovering that he was not as 'inadequate' as he thought</p> <p>Thinking that he must have everything 100% online</p> <p>Expressing relief at only having to have a minimal presence on the web</p> <p>Coming to terms with ICT one step at a time</p> <p>Expressing confidence to continue unaided</p> <p>Feeling better informed</p> <p>Showing knowledge of online resources</p> <p>Sticking to what works with 'manual' admin</p> <p>Changing teaching by being aware of students' points of view</p>	
Object	<p>Having to be selective with ICT</p> <p>Choosing selective interventions & activities</p> <p>Confirming success with selected activities</p> <p>Restricted by CMS</p> <p>Not impressed with what WebCT had to offer</p>	<p>Using the web for student tasks & research</p> <p>Exposing limitations of the web</p> <p>Adapting teaching for implementation on the web</p> <p>Using web for personal research</p> <p>Seeing web as indispensable for research</p> <p>Finding innovative ways to extract personal & high quality work from students</p> <p>Highlighting role of ICT in writing centre</p> <p>Using technology in writing centre</p>	<p>Suggesting new teaching strategies with ICT</p> <p>Proposing a virtual writing centre</p> <p>Planning future implementations of ICT</p> <p>Aiming to focus on writing through all ICT endeavours</p> <p>Exposing possibilities for research on ICT</p>

APPENDIX K: Data sets in tables based on continuity (temporality)

Mediating artifacts	Expressing ICT as the cutting edge of education Seeing potential of ICT Seeing ICT as an aid to teaching Seeing ICT as an aid to learning	Seeing ICT in all aspects of life Including ICT as part of his thinking Seeing the link between teaching and technology Claiming positive experiences with teaching online	Proposing to blend ICT into teaching style
Rules	Affirming the urgency of adopting ICT Feeling pressurised by others in faculty x2 Identifying pressure from colleagues and department Exposing power relations in HEI Identifying institutional pressure	Finding out what is expected of him Exposing miscommunication within faculty over ICT Gaining confidence to make demands Confirming faculty and departmental support	Stressing importance of financial support
Community	Confirming that lecturers are still needed Suggesting that lecturers do what works for them using ICT Claiming initial 'hype' among lecturers over ICT Interaction with international scholars Gaining confidence from international contact Showing uncertainty at roles of support staff Feeling surprised at the proactive approach of ICT support staff x2 Identifying positive approach of support staff Exposing demands of students Stating that students still do the same thing online Identifying student excuses with technology	Highlighting full workload of lecturers Hearing stories of life-changing events from lecturers Hearing exaggerations by lecturers Making suggestions for lecturers using ICT Feeling welcome in international community	Claiming that it should now be easier for new lecturers Claiming that support sessions will be attended by lecturers as they become ready Recommending orientation courses for students
Division of Labour	Making assumption that all lecturers should be educationally sound Claiming that all lecturers are different	Expressing high regard for support from faculty members Enjoying support on a more personal level within faculty	Suggesting that some lecturers will not cope

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Rose

	Past	Present	Future
Subject	Admitting to be new to ICT Having initial problems with ICT Concerned with language issues Identifying problems with random group allocations Confusing network problems with	Rejecting the idea of large classes online Blaming technical problems for students losing interest Questioning increasing numbers of computers on campus	Seeing herself trying again in the future Showing preference for what she is comfortable with

APPENDIX K: Data sets in tables based on continuity (temporality)

	<p>Internet problems Needing to be in control x2 Not wanting to let the students go Not planning to teach large classes with ICT</p>	<p>Claiming that eye contact and face-to-face teaching should be 1st priority Highlighting preference for face-to-face contact x2 Showing preference for what she is comfortable with Claiming to have been put off by bad experience Showing preference for text book or journal Wanting easy access to good sources of knowledge Reliving bad experience with 1st attempt Not seeing the sense in what is currently presented online Hearing success stories but not believing</p>	
Object	<p>Blaming technical differences between online course & study guide for problems Using discussion groups for large class Accommodating students during face-to-face teaching time with computer work</p>	<p>Finding search engine frustrating Revealing abundance of poor content on the web</p>	<p>Suggesting using ICT more in post graduate classes when basic skills have already been learned</p>
Mediating artifacts	<p>Claiming lack of experience to be able to comment on ICT Seeing internet access as a problem Claiming that bandwidth is poor on Fridays Identifying lack of computers on campus Exposing logistical problems with printing Technology causing unnecessary frustration with students Stating that ICT was not yet well enough established</p>	<p>Still claiming lack of computers at the HEI Losing control when using ICT Seeing ICT as cold & impersonal Rejecting ICT</p>	<p>Claiming that ICT can become a back door for lecturers who with poor face-to-face teaching techniques</p>
Rules	<p>Having to work with senior colleague</p>		
Community	<p>Exposing student frustration Seeing student overcrowding at under equipped labs Seeing students wanting to print out electronic pages Feeling for students and their problems with ICT Highlighting technical problems exposed by students Claiming waste of students' time due to technical issues Stressing student negativity building on negativity Placing demands on student finances Finding problems with student basic computer literacy Exposing conflict between senior colleague & students</p>	<p>Seeing student problems through the eyes of a mother Using the experiences of her sons to describe poor teaching with ICT / going back to her children's bad experiences Stating perceptions of parents regarding financial implications</p> <p>Stating problem with having to retrain tutors Seeing tutor as an extra interference between student & lecturer Questioning the power of tutors</p> <p>Identifying bad planning & design of learning tasks by lecturers Questioning all attempts by other lecturers Exposing lecturers placing content/transparencies on web</p>	<p>Claiming that lecturers' bad planning can lead to student apathy</p>

APPENDIX K: Data sets in tables based on continuity (temporality)

		Claiming that lecturers use ICT without knowledge about pedagogy	
Division of Labour	Working with senior colleague on online course Teaching alone in second year	Showing lack of understanding of colleagues attempts at using ICT for teaching	

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