

THE UNIVERSITY OF HULL

CRITICAL DISCOURSE ANALYSIS
OF
INTERPROFESSIONAL ONLINE LEARNING EXPERIENCE
OF HEALTHCARE PROFESSIONALS
IN
ASYNCHRONOUS TEXT-BASED COMPUTER MEDIATED CONFERENCING
WITHIN HIGHER EDUCATION

being a Thesis submitted for the Degree of Doctor of Philosophy

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ABSTRACT

Aim: This study was to evaluate the existing practices of post-qualifying interprofessional learning (IPL) in asynchronous computer mediated conferencing (ACMC). It was underpinned by my desire as a nurse educator to challenge the established assumptions of the role of this technology – ACMC– as a pedagogic tool in achieving the goals of IPL.

Background: In the current healthcare education climate of the United Kingdom, there is a strong desire to meet the government’s agenda for IPL in higher education. Healthcare educators are increasingly utilising ACMC as a pedagogic tool to engage students in asynchronous text-based IPL. The technology may be a promising pedagogic means for achieving effective interprofessional online learning (IPOL); its benefits cannot be taken at face value, particularly for IPOL at post-qualifying level which involves nurses.

Method: This study used Fairclough’s version of critical discourse analysis (CDA), a ‘three-dimensional’ analytical framework to examine the discourse generated by 13 nursing and non-nursing healthcare professionals during their IPOL in the academic year 2004-2005 in a Northern university in England. The aim was to map the analysis of the conference texts with the discursive events in IPOL and also with nurses’ discursive practice in healthcare in relation to power and ideology.

Findings: In contrast to a large amount of didactic, restrictive and limited learning, constructivist and collaborative learning were minimal. This learning which contributed to students’ IPOL experiences highlighted the issues of nurses’ use of a dominating nursing language, as represented in clinical nursing practice.

Conclusion: Based on the attributes of students’ IPOL experiences, recommendations are provided such that nurses’ language use may be adjusted and healthcare education policies and service may be improved, in order to facilitate post-qualifying IPL in ACMC. These recommendations are based on a plausible explanation of student IPOL experiences and future research studies using a wide range of research methods are proposed.

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GLOSSARY OF ABBREVIATIONS

ACMC	Asynchronous Computer Mediated Conferencing
AHP	Allied Healthcare Professional
<i>Bb</i>	Blackboard
CAIPE	United Kingdom Centre for the Advancement of Interprofessional Education
CDA	Critical Discourse Analysis
CF	Compulsory Forum
CMC	Computer Mediated Communication
CPD	Continuous Professional Development
DH	Department of Health
DP	Discursive Psychology
ENB	English National Board
HCE	Healthcare Education
HCP	Healthcare professional
HE	Higher Education
HEIs	Higher Educational Institutions
IPA	Interaction Process Analysis
IPE	Interprofessional education
IPL	Interprofessional learning
IPL/W	Interprofessional learning and working
IPOL	Interprofessional online learning
IPW	Interprofessional working
KSF	Knowledge Skills Framework
MBPP	e-Moderator based parent posting
ME	Myalgic Encephalomyelitis
MSc	Master Degree in Science
NEYNL	North and East Yorkshire and Northern Lincolnshire

NHS	National Health Service
NHSE	National Health Service Executives
NCF	Non-compulsory forum
OCL	Online collaborative learning
RN	Registered Nurse
SES	Social economic status
SFL	Systemic Functional Linguistics
SIPP	Self-initiated parent posting
SROT	State Registered Occupational Therapist
TAT	Transcript analysis tools
TODA	Textually Orientated Approach to Discourse Analysis
VLE	Virtual learning environment
URL	Uniform resource locator
WDC	Workforce Development Confederation
ZPD	Zone of proximal development

GLOSSARY OF TERMS

Allied Healthcare Professionals	Non-nursing healthcare professionals allied to medicine registered as members with the Health Professions Council
Blackboard 6	An e-education platform designed for e-learning
Compulsory Forum	Discussion site in which students were expected to participate at least once a week
Conference Discourse	texts – typewritten messages posted to the conference for online discussion
E-Bridge	An e-education platform designed for e-learning
Healthcare professionals	Nurses, Mid-wives and Allied Healthcare professionals
Lurkers	Students who read online messages but do not participate in the online discussion at all
Non-Compulsory Forum	Discussion site in which students' participation was on a voluntary basis.
Nurses	Healthcare professionals registered as members with the Nursing and Midwifery Council; Nurses, Midwives and Health Visitors
Nursing Discourse	Nursing language in spoken/written form–nursing care plans/incident reports
Texts	Typewritten messages generated as online discussion in the computer mediated conference
Virtual learning environment	A software system designed to support teaching and learning in an educational setting

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DISCLAIMER

This study was a retrospective discourse analytic work in which the researcher was part of the discourse data set. The displaying of the data in verbatim is solely for research purposes and is not intended to expose any individual's online discursive practice. Data provided in the analytic process are intended to make explicit the analytical procedure of critical discourse analysis. The researcher made multiple requests to all participants to contact the researcher regarding any concerns, and shall not be liable for any unforeseen harm incurred by the content of this thesis. This study adheres to the policies and guidelines as laid down by the research ethical committee in the University of Hull, where ethical clearance was sought and obtained for this study.

Chapter 1: Introduction

1.1 Introduction to the chapter

The current study was conducted in order to explore the interactive practices with reference to the discourse of a group of qualified nurses and allied healthcare professionals (AHPs) in asynchronous computer mediated conferencing (ACMC) for interprofessional learning (IPL) in higher education (HE). The study was initiated due to my concern as a nurse educator for the increasing use of ACMC in nurse education. This study challenges the assumptions of ACMC as a pedagogic tool for IPL in healthcare education (HCE). It does so by gaining an understanding of the interprofessional online learning (IPOL) experiences from the perspectives of nurses and AHPs as post-qualifying online students. This study used critical discourse analysis (CDA) to focus on the electronic conference discourse; messages that were initiated for discussions and generated as responses in an authentic IPL environment, whereby ACMC was used as a pedagogic tool. This study was conducted in the hope of developing strategies that could be recommended for successful IPL in a text-based online environment.

This introductory chapter is organised into four main sections in order to provide pertinent information for the understanding of this thesis. The first section discusses the background of the study. It explores the historical context of IPL and its relationship with ACMC. It does so by describing the reality of the field of ACMC, that it is increasingly advocated for use in IPL against a backdrop of absence of interprofessional learning and working (IPL/W). The second section provides the purpose, the rationale and the research questions for the study. The third section briefly discusses the reasons for Fairclough's (1992) version of critical discourse theory on which the study is based. The last section of this chapter provides a detailed account of how this thesis is organised.

1.2 Background to the study

1.2.1 The historical context of interprofessional learning (IPL) and its relationship with asynchronous computer mediated conferencing (ACMC)

In the United Kingdom, reasons for national drivers of IPL go as far back as the 1980s when there was a healthcare workforce shortage. It was recognised that in order to prevent a similar event, there was a need to create a workforce that would meet current as well as future healthcare demands. Educating and training of new staff with diversification of professional roles became a key policy management goal of the National Health Service (NHS) (Department of Health (DH), 2000a; DH, 2001). Alongside this recognition was an increasing demand for greater accountability of healthcare organisations and healthcare professionals (HCPs). A consequence of the recognition of the need for a versatile healthcare workforce, combined with the increased awareness of patient care accountability in a demanding and complex healthcare industry, was the implementation of government initiatives such as ‘Clinical Governance’ (National Health Service Executive (NHSE), 1999), the ‘Essence of Care’ (National Health Service (NHS), 2003) and ‘Placements in Focus’ (DH & English National Board (ENB), 2001). Embedded in these government initiatives are effective communication, team working and acknowledgement of core knowledge and values of healthcare services (Lloyd-Jones, 2007). All these government initiatives targeted as fundamentals to healthcare practice in enhancing quality patient experiences were in fact important elements of interprofessional working (IPW).

Nevertheless, it was not until recently that the policies of the National Health Service (NHS) developed to incorporate interprofessional learning and working (IPL/W) as part of modernising education as fundamental requirements in healthcare education (DH, 2000a; 2000b; DH, 2001). Indeed, by the twenty-first century, there was even a growing recognition that IPL in HCE was essential for cultivating collaborative

practice (Juntunen & Heikkinen, 2004; Reeves & Freeth, 2002; Turner et al., 2000) for securing quality patient care (McPherson et al., 2001; McWilliam & Sangsters, 1994). While there is a growing awareness of the importance of IPL from government initiatives in interprofessional education (IPE), many of these initiatives are based in academic environments in higher education institutions (HEIs) where HCE is offered. Any healthcare programmes or modules in HEIs delivered at either pre-qualifying or post-qualifying level are now expected to provide students from different healthcare disciplines with opportunities to participate in IPL so that students can learn collaboratively from and with one another (United Kingdom Centre for the Advancement of IPE (CAIPE), 1997).

When the government initiatives for IPL (CAIPE, 1997; DH, 2000a; 2000b; DH, 2001; DH & ENB, 2001; NHS, 2003; NHSE, 1999) coincided with the view of the National Health Service (NHS) (DH, 2002) that e-learning was an emerging approach to life-long learning and flexible learning for health and social care education and practice (DH, 2002), ACOM became a popular tool in continuous professional development (CPD) participated by HCPs (Sandars & Langlois, 2006) across the different healthcare disciplines. It is now becoming more common for any CPD programmes that have an aim to incorporate IPL at post-qualifying level (Becker et al., 2000; Connor, 2003; Juntunen & Heikkinen, 2004; Stew, 2005) to be offered online using ACOM as a virtual learning environment (VLE) rather than via a face-to-face dimension in physical classrooms.

1.2.2 Conscious efforts for ACMC to emerge as a pedagogic tool in HCE for IPL

The use of ACMC might have been more than a coincidence. Asynchronous computer mediated conferencing (ACMC) was used in the recognition and appreciation of the fact that there were more problematic issues in IPL at post-qualifying level. Problems associated with post-qualifying IPL can be as simple as the inability to physically organise students to meet in one place at the same time (Juntunen & Heikkinnen, 2004; Luke et al., 2009). Furthermore, problematic issues in post-qualifying IPL can also extend to more complex types resulting from the established stereotyping of professional identities and specialised disciplinary knowledge between the professionals, both of which can adversely affect IPL (Hojat et al., 1997; Pollard, 2008). Based on these identified problems of post-qualifying IPL, the use of ACMC, which had technological features that allowed for collaborative learning, was seen as an ideal solution.

However, it is important to appreciate that the use of ACMC in post-qualifying IPL is based on other attributes of the technology as a pedagogic tool (Harasim, 2006). Indeed, the technology of ACMC has so much more to offer, that it is able to do more than just address the identified problematic issues at post-qualifying IPL. When computer mediated communication (CMC) merges with web technologies and communication is conducted asynchronously, it adds flexibility and openness in the delivery of courses (Jones, 1998). Flexibility is based on the assumption that online students can 'log on' to learn anytime and anywhere. In this respect, learning is on demand of the students. Openness refers to the possibility of the asynchronous mode of typed text communication to create a learning community; one which arises in a good graduate seminar where students learn collaboratively with and from one another and from the e-moderator (Hiltz & Wellman, 1997). Hence, computer mediated conferencing conducted asynchronously is assumed to not only allow flexible online

collaborative learning (OCL), but also to emphasize a student-centred approach for reflexive and critical learning (Hughes & Daykin, 2002). In this regard, APMC which uses text-based dialogue to enable asynchronous communication has the ability to remove the physical barrier as well as the barrier that was created by the established stereotyping of professional identities and specialised knowledge. More importantly, APMC if used in IPL is able to foster critical and reflexive thinking (Hughes & Daykin 2002) in a flexible and open mode of 24/7 access to learning.

When there is understanding that the perceived benefits of APMC was accepted by healthcare educators, it becomes apparent that using APMC for post-qualifying IPL might have been a result of a commitment to foster the development of IPL, in which creative and non-traditional approaches were embraced for success. In part, the use of APMC in IPL is a product of an increased understanding by healthcare educators that promotion of post-qualifying IPL is likely to succeed if it is facilitated by a constructivist approach to learning offered in a flexible mode of delivery; using APMC students may have an opportunity to access critical and reflexive learning in the most cost effective way. In part, the commitment to implementing post-qualifying IPL using APMC has grown out of the awareness that complex healthcare systems require innovative and creative ways to manage demanding healthcare teaching methods may harness creativeness in learning that promises collaborative learning and ultimately collaborative working.

1.2.3 The position of APMC as a pedagogic tool in healthcare education for IPL

In order to fulfil the healthcare political and educational agenda of IPE, healthcare disciplines in HEIs that deliver post-qualifying IPE have involved the use of APMC (Becker et al., 2000; Juntunen & Heikkinnen, 2004). The technology is introduced either as a blended approach to learning, or more often as a 100% text-based approach to learning, which does not involve any face-to-face teaching and learning.

The healthcare disciplines are not alone in this journey; the use of ACOM is seen in other non-healthcare disciplines in both traditional and non-traditional universities, the latter which in fact, were the early adopters in the technological innovation of ACOM for pedagogical purposes. At present, many faculties and academic departments have exploited the technology to a great extent for teaching and learning (Harasim, 2006). Study programmes or modules in higher education are increasingly delivered online using the ACOM tool as a pedagogical means for learning (Bjarnason, 2007; Harasim, 2006). According to von Glaserfeld (1995), there has always been a concern that a constructivist world view which embraces student active learning and student-centred learning is difficult to realise in conventional education. If this concern, as highlighted by von Glaserfeld (1995), is indeed shared by educators in higher education (HE), it becomes apparent that wide implementation of the technology to permit asynchronous text-based communication (Harasim, 2006) alongside traditional didactic education in HEIs (Kelly, 1970) is to recover the constructivist learning that might have been lost in conventional education. Relating this assumption to healthcare education, the intense use of ACOM for IPL is likely to be a pursuit of collaborative and critical learning in IPL (Connor, 2003) by healthcare educators, thinking that ACOM is where such learning is realised.

Whether ACOM can live up to its expectation and that constructivist practices can be envisaged by it to facilitate interprofessional education (IPE), remain to be seen. But for now, it seems that the emerging strategies in HEIs have placed a great deal of emphasis on participative and collaborative learning. Certainly the emerging of ACOM as a pedagogic tool for IPL is more than a coincidence. It is inherent in the belief that it benefits IPE. For this reason, the advantages and benefits of the technology merit more attention than that has been given so far. The reasons for the increased popularity of ACOM in IPL are discussed in greater depth in the next two sections.

1.2.4 ACMC as a pedagogic tool for IPL – based on its flexibility and its practicality

From the discussion so far, it appears that ACMC has emerged as a popular pedagogic tool amongst many other potential online learning tools (Harasim, 2006). For this reason and also for the advancement in technologies, different brands and versions of the software were developed. Nevertheless, all ACMC have an identical property; an asynchronous learning mode. Learners are able to ‘log on’ for discussion at any time and place (Jones, 1998). In addition, all previously posted messages are permanently accessible; learners can ‘log on’ repeatedly to participate in discussions or to view the messages as many times as they wish (Harasim, 2006). Learner participation in ACMC therefore differs from that which occurs in a conventional didactic learning situation. The constructivist approach facilitated by ACMC permits the recognition of diverse preferences of learning and the realisation of learner control during the process of learning (Harasim, 2006). Unless there is problematic technical access, it is generally viewed that online learning is not only critical and reflexive, but it is also limitless with no boundary that it permits on-demand learning (Harasim, 2006).

Overall, ACMC which facilitates on-demand learning fits well with the unsociable shift work patterns of HCPs, especially those who are employed in secondary care. With the use of ACMC, IPL can become inclusive to any learners (Stew, 2005) who otherwise, cannot have the equal opportunities to access HE, simply because they cannot be physically present in one classroom synchronously due social (family and work commitments), financial (too expensive to travel) or geographical (took too long to travel) reasons. As long as computer access and time for access is not an issue, the asynchronous nature of ACMC deprives no one from having an equal opportunity to be part of a community of practice (Wenger, 1998) to meet peers with common expertise and interests in healthcare to benefit from each other and from any new meanings that emerges from IPL via ACMC.

1.2.5 ACMC as a pedagogic tool for IPL – based on its theoretical assumptions

Besides the practicality of ACMC in IPL, the increasing use of ACMC for IPL can best be explained from its underlying theoretical assumptions which advocate online collaboration and constructivist learning (Salmon, 2003). To explain the various theories underpinning IPL, one needs to first look at how IPL is defined. There are many interpretations offered to explain IPL (Scholes & Vaughan, 2002), but all of these converge to one consensual meaning that IPL involves two or more HCPs from different healthcare disciplines learning with each other and not merely from and about each other (CAIPE, 1997; Lloyd-Jones et al., 2007). Whilst deconstructing the definition of IPL had resulted in one consensual meaning that IPL involved collaborative learning of HCPs in mixed healthcare disciplines (Barrett & Keeping, 2005; Meads & Ashcroft, 2005; Walsh, *et al.*, 2005), an agreement that IPL necessitates interactive and discovery styles of learning is also reached (Lloyd-Jones et al., 2007). Apparently, collaborative and constructivist theories of ACMC, both underpinned the learning theories of IPL (Lloyd-Jones et al., 2007). This may explain why it is not likely that any healthcare educators will avoid being led to accept ACMC as an ideal pedagogic tool for achieving constructivist and collaborative learning in IPL, and that ACMC has been widely used as a tool for work-based online CPD for HCPs of mixed healthcare disciplines (Becker et al., 2000; Sandars & Langlois, 2006).

Indeed, there are many theories based on the principle of collaborative and constructivist learning which have been offered to explain the value of ACMC as a pedagogic learning tool for higher learning. However, there are two theories which underpinned ACMC that have specifically influenced ACMC to become an emerging online pedagogic tool in IPL; Vygotsky's social constructivism theory (Vygotsky, 1978) and Bakhtin's dialogical theory (Bakhtin, 1986). These two theories are discussed in greater depths in terms of their applications to IPL in the following sub-sections.

1.2.5.1 Vygotsky's social constructivist approach and text-based dialogue in APMC

One of the reasons for APMC to become a popular means to achieve the constructivist approach to learning is because underlining its asynchronous text-based learning is Vygotsky's (1978) social learning constructivism theory. According to Vygotsky (1978), participation in social interaction and symbolically mediated thought facilitated by dialogue and language is important for individual learning. Vygotsky (1978) further uses his concept of the 'zone of proximal development' (ZPD) to emphasize that learning is effective with the help of not only more able adults but also with the help from peers. Hence, emphasized in Vygotsky's (1978) concept of ZPD is the active interdependent learning role of individuals.

As far as IPL is concerned, the theoretical grounding in IPE is that of adult learning in which adult learners are believed to be intrinsically motivated, self directed, reflexive and critical in thinking (Barr, 2005). Vygotsky's (1978) concept of ZPD when applied to APMC, maps very well with the theoretical grounding of IPL. In using APMC, the mediation of speech in the form of typed-texts is being sent to a common site by nurses and AHPs where they are accessible to all who are assumed to have the characteristics of the adult learners as required in IPL for successful IPE (Barr, 2005). Through a text-based communication process, all learners can benefit from each other's learning by sharing and critically reflecting on each other's perspectives that are unique to a specific healthcare profession (Connor, 2003). By allowing views which were once closed from some HCPs to be opened up in peer interactions using text-based dialogue, APMC therefore allows 'co-reflection' in IPL (Wee, 1997) for deep learning (Koschmann, 1996). Presumably, nurses and AHPs from various healthcare disciplines can benefit from learning from and with each other in an online IPL environment (Juntunen & Heikkinen, 2004).

1.2.5.2 Bakhtian's dialogical theory and text-based dialogue in APMC

Another reason for the popularity of APMC as a learning tool is its underpinning constructivist approach, based on Bakhtin's dialogical theory (Bakhtin, 1986). In Bakhtin's (1986) work with poststructuralist ideas of language, communication and identity, he explains that productivity and creativity of discourse practice and its realisation in texts are heterogeneous in their forms and meanings (Bakhtin, 1986). The reason offered by Bakhtin (1986) is, any construction of a discourse is simultaneously influenced by an individual's inwardly persuasive discourses as well as by any authoritative discourses which guarded and contoured the individual's social actions. For this reason, Bakhtin (1986) believes that speech as discourse is open and provisional in the way that it produces knowledge.

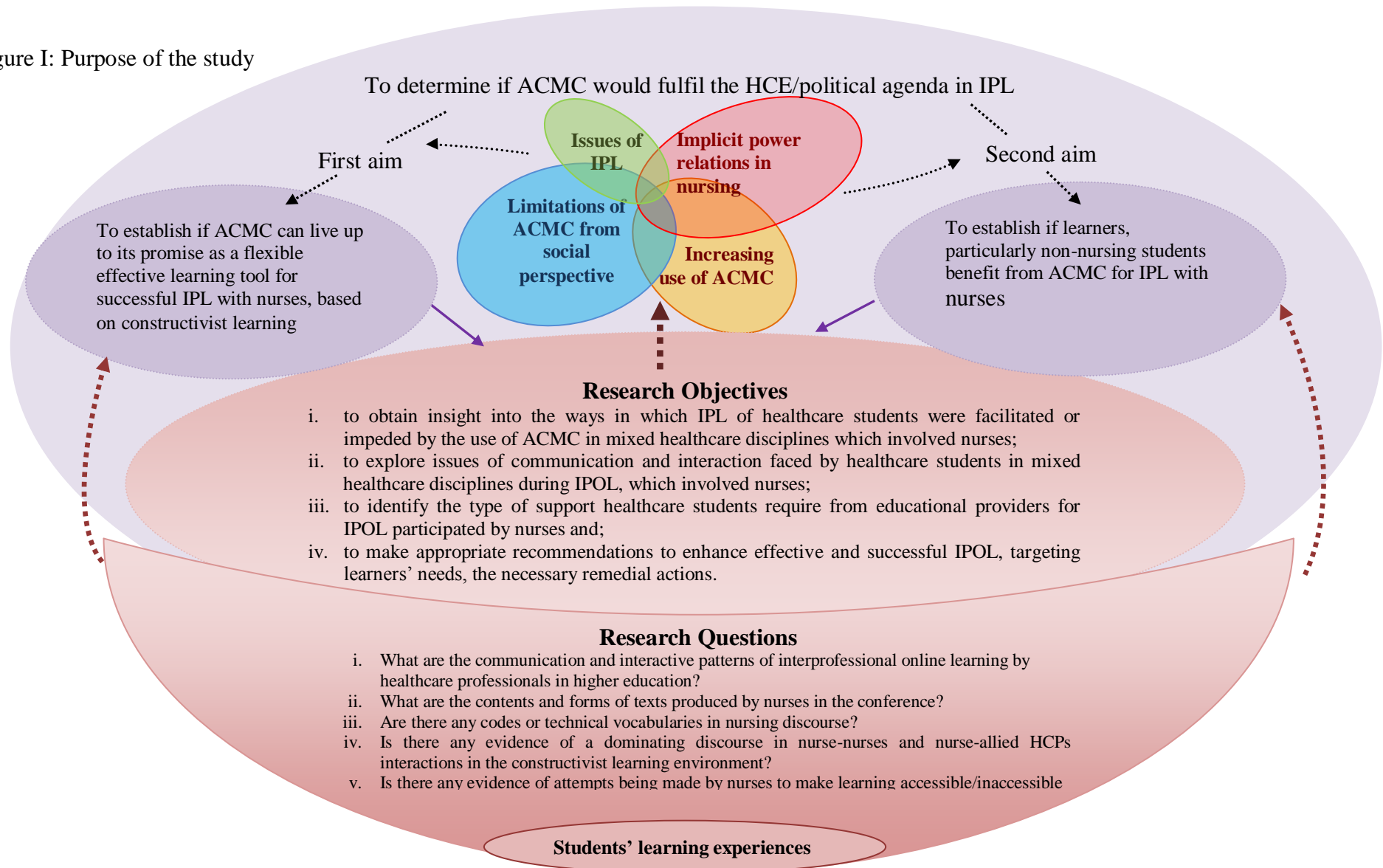
In Bakhtin's term, the typewritten texts generated in an APMC which are directly translated by the participants as a form of discourse is the participants' own speech, but parts of which belong to others. Relating Bakhtin's dialogical concept to IPOL; the key point of learner control in the constructivist discourse is learning happens in real life from the learners' personal and professional contexts. The resources which learners use to perform their discursive acts in IPOL are therefore rich in content. Since learners are choosing from their real life context to engage in a flexible and open dialogue, any alternate views are likely to be part others. These alternate views albeit part others', they are important complementary professional perspectives which can now be brought together to meet in APMC for a joint innovative perspective (Johnson et al., 2003). Obviously, any joint innovative perspective requires the involvement of radical and creative learning, which are important intentional outcomes of IPL. Since the intentional outcomes of IPL are likely to emerge from the use of a constructivist dialogical approach to learning via APMC, it will be hard for APMC not to emerge as an important pedagogic tool for it to gain a respectable foothold in IPL.

1.3 Purpose of the study

The main purpose of the study is to evaluate the existing practices of IPL via ACMC in order to determine if ACMC as a pedagogic tool for IPL fulfils the healthcare education and political agenda of IPE in HCE. There are two aims based on the purpose. The first is to determine if ACMC can live up to its promise as a flexible effective pedagogic tool for successful IPL with nurses based on a constructivist approach to learning. The second is to determine if IPL which involved nurses would truly benefit all learners, particularly non-nursing learners from the exploitation of the technology. Figure I on the next page provides the overall purpose of the study. The research aims, research objectives and research questions are also shown in this figure in order to illustrate how the overall purpose of the study was achieved.

The research aims developed to fulfil the purpose of this study are based on the rationale for this study. The latter is derived from my understanding of the reality of the field of IPL in its wider context in healthcare and HCE, that when IPL involved nurses ACMC may not have been an ideal pedagogic tool or at least not as an effective pedagogic tool as it is perceived to be. In this light, it is important for an in-depth discussion on the relevant issues of IPL in its wider contexts that will provide the factual basis on which the purpose of the study was developed. This discussion is organised into 4 subsections to explore the reality of interprofessional learning and working (IPL/W), nursing language use, ACMC and nursing education. It is appreciated that these relevant issues are not mutually exclusive and they are broken down into four issues for the purpose of discussion. They are presented in the next few sections as follows: i) existing issues of interprofessional learning (IPL); ii) interprofessional learning and working (IPL/W) and the implicit power relations in nursing; iii) the limitations of ACMC as a pedagogic tool from a social perspective and; iv) the current atmosphere of nursing education.

Figure I: Purpose of the study



1.3.1 Reality of interprofessional learning and working (IPL/W), nursing language use, APMC and nursing education

1.3.1.1 Existing issues of interprofessional learning (IPL)

Since the implementation of the concept of IPL/W in health and social care in the last two decades by policy makers, educators and service managers (World Health Organisation, 1988; DH, 2003), many studies were conducted to evaluate IPL (Carpenter, 1995; Parsell et al., 1998; Pollard et al., 2004; Pollard, 2008; Santy et al., 2009; Scholes & Vaughan, 2002; Whelan et al., 2005). The mix in the groups of pre-qualifying healthcare students and professionals and the settings in which the studies were conducted varied and did not necessarily include qualified nurses. Nevertheless, these studies provided insights to the feasibility of IPL/W between professionals from different healthcare disciplines, and most importantly, they provided insights to the difference in outcomes of IPL/W between pre-qualifying and post-qualifying levels in which qualified nurses were involved.

Positive findings of learners' experiences in IPL appeared to be generally found in studies which focused on pre-qualifying IPL (Hojat et al., 1997) whereby a distinctive feature was observed in the profile of the student populations. No two studies had students from the various healthcare professional disciplines in a similar mix. Take for example the four recent studies (Cooke et al., 2003; Freeth et al., 2002; Salvatori et al., 2007; Santy et al., 2009; Whelan et al., 2005) that were conducted to evaluate the outcome of pre-qualifying IPL: In Cooke's (2003), the student population was made up of only medical and nursing students, whereas in all other three studies (Salvatori et al., 2007; Santy et al., 2009; Whelan et al., 2005), the student populations in question were made up of more than two different groups of students. Nevertheless, these three studies also differed in the composition of their student populations. Salvatori et al.'s (2007) was about students from nursing, medicine, occupational therapy, physiotherapy as well

as midwifery programmes. Santy et al.'s (2009) study involved a group of trainee endoscopists, nursing and midwifery students in IPL and Whelan et al.'s (2005) included student dieticians in IPL with nursing and medical students. Besides this observation, the IPL courses in these studies were also observed to be varied in their nature in that some had involved clinical placements (Salvatori et al., 2007), while others (Santy et al., 2009; Whelan et al., 2005) were solely HEI-based. One of the studies which was most recently conducted (Santy et al., 2009), had used only synchronous online conferencing for IPL. This teaching method was not found to be used in the other three studies (Cooke et al., 2003; Salvatori et al., 2007; Whelan et al., 2005). On top of this variability, different research methods to gather findings were also evidenced in all four studies; one study had relied solely on the use of survey questionnaires (Whelan et al., 2005), while others had involved the use of a combination of a few methods which either included surveys with students' journals (Salvatori et al., 2007) or surveys with observational field notes and focus group discussion (Cooke et al., 2003). The most recent study (Santy et al., 2009) was the only one that had used an online discussion forum to gather students' learning experience of IPL.

Indeed, when Barr (2005) reviewed studies which focused on the outcome of IPL, he too, noticed that there were heterogeneity of interventions and methodological limitations. Many other researchers who had an interest in the outcome of IPL (Curran et al., 2008; Freeth et al., 2002; Reeves et al., 2007) perceived the need for more research to be conducted to evaluate the outcome of IPL. Consequently, despite the availability of a large amount of existing research evidence, many more studies were still being conducted on a continuous basis to evaluate the outcome on IPL (Barr, 2005; Freeth et al., 2002).

Continuous research efforts invested to evaluate IPL were a result of the heterogeneous research methods identified as limitations of previous studies. Yet, continuing research studies on IPL could not avoid being heterogeneous in their research methods. This was because research studies conducted to evaluate the outcome of IPL were to evaluate particular IPL situations based on specific courses and individual teaching methods used for specific mixed student populations. For these reasons, other than the aims of the studies, no study conducted to evaluate IPL was likely to share identical characteristics. Since no two IPL situations were identical, the variability in research methods might have been inevitable. However, it was the unavoidable heterogeneity of interventions and methodological limitations in these studies that might have rendered the existing body of research with insufficient evidence of the positive outcomes of IPL (Barr, 2005; Cook, 2005; Freeth et al., 2002).

Other than the general consensus that there were still insufficient evidence of IPL at pre-qualifying level (Barr, 2005; Cook, 2005; Freeth et al., 2002; Rudland & Miers, 2005), studies about IPL at post-qualifying level (Barr et al., 2000; Curran et al., 2008; Hojat et al., 1997; Mu et al., 2004; Tunstall-Pedoe et al., 2003; Pollard, 2008) particularly those which involved mature students with experiences in higher education and working in health and social care (Arksey et al., 2007; Atwal & Caldwell 2005; Pollard et al., 2004; Scholes & Voughan, 2002) appeared to have drawn a unanimous opposite conclusion which indicated negative IPL experiences of participants.

Many studies which involved nurses and other post-qualifying members of health and social care staff in placement settings indicated experiences of problems when HCPs were working with colleagues from other healthcare disciplines. Thus negative experiences in interprofessional interactions amongst the HCPs were common (Arksey et al., 2007; Atwal & Caldwell, 2005; Pollard et al., 2004; Robinson & Cottrell, 2005; Scholes & Voughan, 2002) and positive experiences of IPW with nurses were

sparse and were found in only a handful of studies (Sargeant et al., 2008; Pollard, 2008; Watkin et al., 2009).

Three years ago, when interprofessional collaborative sharing of evidence between nurses, doctors and AHPs were first considered by Zwarenstein & Reeves, (2006), it was found that IPL rarely existed in evidence-based practice. These findings were reflected in two studies (Colyer, 2008; Dutton & Worsley, 2009) recently conducted to investigate the commitment of nurse educators, as facilitators of IPL. In the two studies, both the practice educators (Dutton & Worsley, 2009) and the academic staff members (Colyer, 2008) were found to be supportive in promoting the idea of IPL, but they were negative about the success and possibility of IPL. Obviously, the impression of non-existent IPL has not changed very much today, that critical stakeholders of IPL are still pessimistic about IPL and believe that it is far from emerging particularly in post-qualifying education which involved nurses.

1.3.1.2 Interprofessional learning and working (IPL/W) and the implicit power relations in nursing

It was generally agreed that the key factors identified in enhancing interprofessional collaboration in IPL included effective communication and interpersonal skills and the respect of different professional perspectives (Barrett & Keeping, 2005; Meads & Ashcroft, 2005; Walsh et al., 2005). Therefore, collegial relationships with colleagues were the main ingredient for successful IPL (Sargeant et al., 2008; Stenner & Courtenay, 2008; Wakefield et al., 2003).

Yet, the power relations in the form of horizontal and vertical violence amongst nurses are a long standing tradition (Farrell, 1997; Woelfle & McCaffrey, 2007). It was common to find nurses being aggressive and destructive against one another, and particularly so towards those perceived by nurses as having a lesser status and/or

knowledge than nurses (Daiski, 2004). On some occasions, the oppressive behaviours in clinical settings of nursing staff were even believed to have been transformed into bullying behaviours (Begley, 2002; Randler, 2003). It was common for nursing peers, clinical nurse specialists and nurse managers to be considered as the perpetrators of workplace violence (Baumann et al., 2001; O'Connell et al., 2000; Shields & Wilkins, 2006). Indeed, on some occasions, the power (including that in the form of oppression) implicit in the social relations between nurses and AHPs was found to have affected nurses' IPW relationship with other HCPs (Woelfle & McCaffrey, 2007) and that patient care was ultimately affected (Lau et al., 2007; Woelfle & McCaffrey, 2007).

With the growing concerns on quality patient care, some scattered research interests were generated, with a few studies conducted to investigate the phenomenon of power relations in nursing from a discursive perspective (Adams, 2000; Hamilton & Manias, 2006; Irving et al., 2005; St-Pierre & Holmes, 2008; Wilson, 2001). These studies concluded that associated with the implicit power relations that had affected patient care was nurses' dominating discourse (language) which was both objectifying and authoritative. Long before these research studies, some authors (Clark, 1999; Crawford et al., 1999) had already attributed nurses' use of dominating language to the development of the discipline of nursing which was aimed at empowering nurses with more independent and autonomous practices in order to provide effective and quality care (Meleis, 1992). This concept is explored in the chapter of methodology and methods. For now, the potential effects of power relations in nursing language use on IPOL are explored further in the next section to continue my justification for this study.

1.3.1.3 The limitations of ACOM as a pedagogic tool from a social perspective

As discussed earlier, one of the features of ACOM which has led it to become a popular pedagogic tool is its asynchronous text-based nature. In ACOM, messages are able to be threaded for asynchronous discussions for learners to simultaneously continue on several subjects or discussion threads (Green, 1998). It is assumed that the asynchronous and text-based nature of ACOM not only allows flexible learning in terms of the location and time but it also allows learning to take place in an environment which is less confrontational than an intimidating face-to-face classroom (McConnell, 2000). What makes ACOM less confrontational and intimidating for learning is its lack of visual (bodily expressions) and aural (tone of voice) cues which are believed to be the sources of tensions in interactions (Burge, 1994).

However, the claim of ACOM as being less confrontational and intimidating can be challenged by the very reason which supported this claim. Whilst it is appreciated that communication in ACOM is based solely on typewritten texts, the latter is a reflection of any actual instance of language use in the conference. Since the power relations in nursing are implicit in nurses' language (Hamilton & Manias, 2006; St-Pierre & Holmes, 2008), they are likely to be embedded in the conference discourse to either complicate and/or complicated by the problems associated with the online interactions which were conducted in the absence of visual and aural cues for clarification. Having raised the issue, it is not suggested that interactive problems from the power relations amongst nurses will always emerge. However in the absence of the required cues for clarification, any existing problematic interactions from power relations can be magnified in ACOM. If that happens, a learner-focused approach to encourage open-ended processes and flexible social interactions for collaborative and deep learning to develop critical problem solving skills for lifelong learning (Koschmann, 1996) is likely to be impeded, rather than enhanced.

1.3.1.4 The current atmosphere of nursing education

Whilst power relations are implicit in nursing, nurses are increasingly expected to participate in CPD in order to become credible practitioners who are considered to be fit for practice (Atack & Rankin, 2002; Mckenna & Samarawickrema, 2003). When IPL is recognised to be the key to effective practice and quality and safe patient care (Cowley et al., 2002; Sargeant et al., 2008), more nurses are likely to participate in IPL. Alongside the government initiatives of IPL, are the political imperatives which gave impetus to intense demand for flexibility in healthcare education suggest that IPL is likely to be increasingly delivered via ACMC. Indeed, in today's fast moving world, where technology proliferates exponentially and education is more about flexibility and efficiency, ACMC is likely to become an important educational tool for CPD (DeNeui & Dodge, 2006; Sandars & Langlois, 2006) and IPL (Connor, 2003). In this respect, nurses who have job and family commitments were likely to increasingly 'meet' other HCPs for collaborative IPOL via ACMC.

Given the presence of the long standing implicit power relations between nurses and between nurses and AHPs, healthcare educators should not continue to be contented and remained complacent with the underpinning theoretical assumptions of ACMC which assume success of IPL, so long as HCPs in any mix with nurses were put together to learn in a single programme/module. Nurses and all other AHPs should be reconceptualised and treated as learners with potential complex and multi-faceted online/offline issues, who engaged in the complexities of knowledge construction in a text-based learning environment. Just as much as students from any educational disciplines should not be taken for granted as efficient 'users', nurses and AHPs should not be assumed to be unproblematic 'users' of ACMC. For this reason, empirical results to determine how IPOL has fared so far, is needed to be established for future strategic direction.

1.3.2 Rationale for the study

The longstanding issue of implicit power relations in nursing has been a fascinating subject for some nurse researchers (Baumann et al., 2001; O'Connell et al., 2000; Shields & Wilkins, 2006). Some nurse researchers had even pursued the enquiry from a discursive perspective (Barrett, 1996; Crowe, 2000; Hamilton & Manias, 2006; Lau et al., 2007; Mohr, 1999; St-Pierre & Holmes, 2008). Despite that, research efforts were sporadic, and these few studies conducted to address power relations discursively were performed with an isolated focus on patient care and not on IPL. Nevertheless, these studies have provided good insights into the understanding of nurse power relations; nurses' poor interpersonal relationships with patients, which affected patient care is a result of nurses' use of an objectifying and dominating language.

However, no conclusive argument can be made about the effects of power relation in nursing on IPL, as the entwined nature of the two has not been empirically explored. Nevertheless, from the discussion so far, it appears that IPL/W is problematic in a workplace amongst the post qualified HCPs (Barr et al., 2000; Curran et al., 2008; Hojat et al., 1997; Mu et al., 2004; Tunstall-Pedoe et al., 2003; Rudland & Miers, 2005). Due to the unresolved problematic power relations in nursing (Sheridan-Leos, 2008; Woelfle & McCaffrey, 2007), any IPL situations which involved nurses (who were likely to increasingly use ACMC in education) are likely to be adversely affected in the same way as in the other aspects of nursing. Indeed, there are already some pessimism about the potential of IPL amongst some facilitators in clinical practice (Dutton & Worsley, 2009) and some academic staff members (Colyer, 2008). Nevertheless, ACMC has its own unique technological features as a pedagogic tool, which emphasized collaborative and constructivist learning, for these reasons, its use does give a ray of hope in recovering IPL from the non-existent post-qualifying IPL/W healthcare environment (Zwarenstein & Reeves, 2006).

However, ACOMC involves interdependent learning of students in the form of typewritten texts translated from speech and thoughts. The success of ACOMC as a pedagogic tool relies heavily on the discursive practices and language use of students. In situations where nurses were involved, the success of IPOL would be affected by nurses' language use. The latter has been found to be dominating to the extent where it is even believed to have the potential to produce adverse effects on interpersonal relationships (Clark, 1999; Crawford et al., 1999; Hamilton & Manias, 2006; Lau et al., 2007; St-Pierre & Holmes, 2008). In this light, there are significant limitations of ACOMC for IPOL which involved nurses, the effects of which cannot be taken lightly.

However, the zealous push for flexible learning to cut cost in HEIs (Masterson, 2002) may easily cause providers of HCE to overlook this limitation. In addition, the benefits of ACOMC based on the underpinning learning theories may also outweigh the perceived limitations. It is important to recognise that ACOMC does not just lack a technological feature for face-to-face communication, what it also lacks is an important means for solving problematic interactive issues that can easily emerge from the existing power relations in nursing (Clark, 1999; Crawford et al., 1999; Crowe, 2000; Hamilton & Manias, 2006; Lau et al., 2007; St-Pierre & Holmes, 2008). Since ACOMC operates asynchronously (Harasim, 2006) it cannot resolve any problematic discursive issues synchronously. Instead it might ironically provide an avenue for any potential interactive problems to be magnified. Nevertheless, as highlighted earlier, any problematic discursive practices associated with power relations in ACOMC are not definitive. Even if the existing implicit power relations were embedded in the texts, IPOL may not always be adversely affected. Hence, before any conclusions about ACOMC as a pedagogic tool for IPL can be made, knowledge of the students' experiences is needed. Certainly, this requires the online communication practices of students in IPOL particularly that of nurses to be established first.

1.3.3 Research aims and objectives

In light of the potential problematic issues in IPOL which involved nurses, the present study was initiated to seek understanding of student IPOL experience. It was conducted in the hope that the acquired knowledge would provide some insights to the current practices of IPL in an asynchronous text-based learning environment, to inform future asynchronous text-based IPL in HCE. Whilst IPL and e-learning are high on the healthcare political and educational agenda, ACMC is currently identified as an ideal tool to achieve constructivist learning, more nurses (who were influenced and affected by the power relations implicit in nursing) are likely to be involved in IPOL with AHPs at some stages of their professional career. For this reason, the present study had focused on achieving the following objectives:

- i. to obtain insight into the ways in which interprofessional learning of healthcare students were facilitated or impeded by the use of ACMC in mixed healthcare disciplines which involved nurses;
- ii. to explore issues of communication and interaction faced by healthcare students in mixed healthcare disciplines during IPOL, which involved nurses;
- iii. to identify the type of learning support healthcare students require from educational providers for IPOL participated by nurses and
- iv. to make appropriate recommendations for the necessary remedial actions from service providers of healthcare education and healthcare education policy makers, to enhance effective and successful IPOL, targeting at meeting learners' needs

1.3.4 Research questions

To achieve the objectives of this study, the student IPOL experience would first need to be established. Keeping in mind that the implicit power relations had long existed between nurses and between nurses and the allied healthcare professionals, and

part of which were associated with nurses' dominating language use (Clark, 1999; Crawford et al., 1999; Hamilton & Manias, 2006; Lau et al., 2007; St-Pierre & Holmes, 2008). Nurses' dominating discourse which was prevalently used in clinical practice may well emerge in a text-based learning environment which relied solely on language use for learning.

If the implicit power relations were translated into the context of IPOL to produce discursive problems, the latter were likely to be magnified in an asynchronous text-based environment to adversely affect IPOL. In light of these concerns, the study was designed to establish the nature of IPOL which involved nurses to determine if the power relations in practice were indeed translated into the conference to affect IPOL. Therefore, nurses' language use in a text-based online conference for interprofessional learning was examined empirically, to determine student IPOL experience. Five research questions were developed to address the overall aims of the study. They were affirmed based on the literature review and were used to guide the present study to gain insights into student IPOL experience and account for the discursive practices of nurses and allied healthcare professionals, and to offer appropriate strategies for improved IPOL in which nurses are involved. The five research questions for this study are as follows:

- i. What are the communication and interactive patterns of interprofessional online learning by healthcare professionals in higher education?
- ii. What are the contents and forms of texts produced by nurses in the conference?
- iii. Are there any codes or technical vocabularies in nursing discourse?
- iv. Is there any evidence of a dominating discourse in nurse-nurses and nurse-allied HCPs interactions in the constructivist learning environment?
- v. Is there any evidence of attempts being made by nurses to make learning accessible/inaccessible to others?

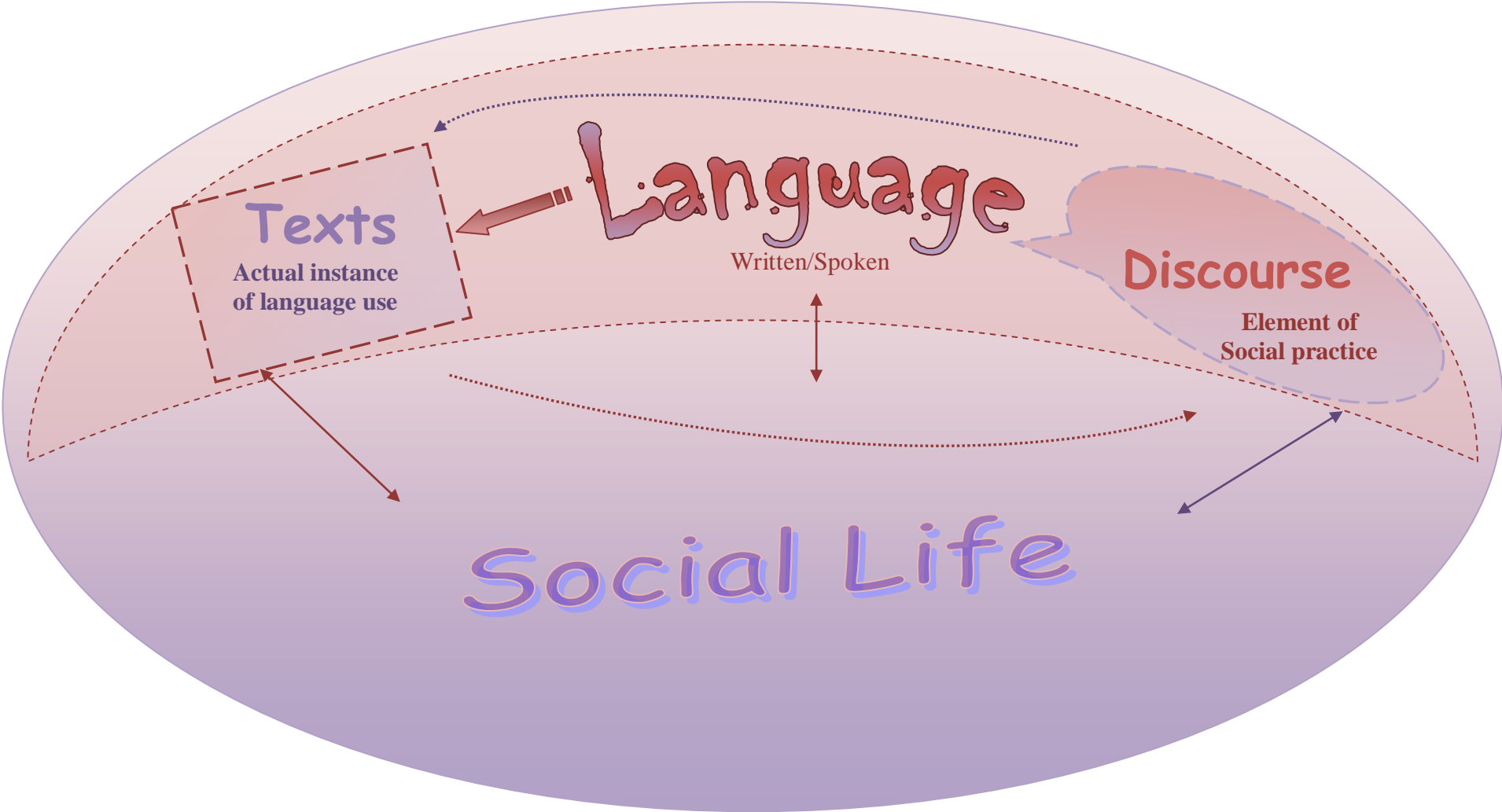
1.4 Rationale for Fairclough's version of critical discourse analysis (CDA)

1.4.1 Relationship of language, discourse and texts

To justify the methodology and method of this study, the relationship between 'language', 'discourse' and 'texts' needs to be clarified. The term 'language' is used in its most usual sense to mean verbal or written language – words, phrases, sentences, etcetera (Fairclough, 2003). In this study, language was the typewritten conference messages posted during as part of student IPL. According to Fairclough (2003), language is dialectically interconnected with social life and is its irreducible part. For the purpose of this research, the conference messages were understood as an irreducible part of the social life of the participants. The term 'discourse' was used in the sense of critical discourse analysis, in that it signalled a particular view of language in use, within a relatively durable structuring and networking of social practices (Fairclough, 2003). Thus, discourse is an element of social practice and it is dialectically interconnected with other elements (Fairclough, 2003). In this regard, discourse in the conference was dialectically interconnected with clinical practice and the healthcare system at large. The term 'texts' was used in a narrow sense to refer to actual instance of language in use in the discussion forum; the typewritten messages.

In essence, language and discourse are both dialectically interconnected with social life, and since both are involved with interactive processes of meaning making, so are their texts (Fairclough, 2003) (Figure II on page 25). With this concept in mind, it is apparent that the present study based on Fairclough's (2003) approach to discourse, which involved social activities based solely on language, was to take full account of language use. Thus, close attention to the linguistic features of texts was given in this study, in order for an "analysis of the texts which aims to be significant in social scientific terms" to be connected with the theoretical questions about discourse (Fairclough, 2003: 3).

Figure II: Relationship of language, discourse and texts



1.4.2 Experiences embedded in the social construction of conferencing messages

It was appreciated that in order to fulfil the purpose of the study, the issues which affected student's learning experiences needed to be addressed. However, this required a good knowledge of the student experiences. The latter was best gained from the perspective of the students. This view is based on a realist position in which reality is believed to be experienced by those involved, that it is not some kind of truth awaited to be uncovered (Taylor, 2001). Hence a phenomenological approach which involved interviewing those affected might have been an ideal approach in this study. Inasmuch as interviewing students might have been one best way to obtain students' perspectives (Mason, 1996), there is something more to 'reality', in that it is co-constructed by those who have experienced it (Taylor, 2001). Moreover, as discussed earlier, language in the form of (discourse) is involved with the interactive processes of meaning making (Fairclough, 2003) that discourse generated from the experience is a social action, which is therefore constitutive. Based on this assumption, student experience were most likely to have been co-constructed by students during the online learning process.

Indeed, discourse is a form of social action, rather than a 'do nothing domain' such that it involves work of all who participate in it to co-produce meaning (Edwards, 1997; Wetherell, 2001). In terms of IPOL, student experience was co-constructed by students experiencing the IPOL. For this reason, student learning experiences were likely to reside in the messages generated during students' online participation of IPL in a mixed healthcare discipline. In fact, Fairclough (2003) once claimed that there would not be any real understanding of the social effects of discourse without any close examination of what people talk or write. In this view, the conference itself is a rich discourse data source for which data that was generated in an authentic context of online learning can be used to uncover student IPOL experience from students' perspectives.

1.4.3 Power relations embedded in the social construction of experiences

As discussed in the above section, student IPOL experience were likely to be a social construct in the form of conference discourse that was generated when students were experiencing IPOL. Since discourse is an element of social life closely interconnected with other elements (Fairclough, 2003) that existed in its social context, the interactive experiences of students in IPOL could potentially be influenced by the existing implicit power relations between nurses and between nurses and the AHPs. Student experience which affected their online collaborative learning (OCL) generated in ACMC as messages were ideal discourse data for analysis of student IPOL experience from a student's perspective. However, this study would only benefit if it was based on a methodology that would set the study in line with the constructivist approach to learning that is, in tune with the construct of student experience based on a realist view which will address power relations.

For the above reasons, the version of CDA developed by Fairclough (1995) was chosen as the methodological approach on which the present study is based. The choice was in light of the fact that Fairclough's (1995) critical discourse theory is not only consistent with the concept of dialogical and collaborative learning in the constructivist environment of ACMC, but it is also able to address the power relations implicit in nursing and healthcare practices. In sum, Fairclough's (1995) version of CDA was used to address the overall aim of the study, by seeking answers to the five research questions. It was used in the hope that this study could ultimately make some appropriate recommendations for facilitating IPOL, which involved nurses. The chapter of methodology and methods further explains why and how Fairclough's (1995) version of CDA was used to obtain a plausible account of the IPOL experiences of nurses and the allied healthcare professionals.

1.5 Organisation of the thesis

The main part of the thesis is expanded from the discussions in the executive summary provided at the start of this thesis. The whole thesis is organised into seven chapters. At this juncture, I would like to point out that this research is reflexive in nature. For this reason, although the discussion of the various research stages is organised in a linear fashion from chapter one to seven, the thought processes in relation to the different stages of this research study, had not been carried out in a linear fashion as such. Each stage of the research had occurred in an iterative manner, simply because of my constant and conscious need to address my various positions in relation to the research topic. As a result, my reflexivity was addressed in all stages of the research and any limitations of the study that might have been imposed from my thoughts and the resultant actions in any particular research stage were adequately addressed.

1.5.1 Chapter 1: Introduction

The first chapter of the thesis, being the introductory chapter, had provided some basic but pertinent information for the understanding of the background of this thesis. In this chapter reasons for the increased use of ACMC for post-qualifying healthcare education were already provided. The reasons were given in light of the two main underpinning pedagogic theories of OCL in relation to IPL; Vygotsky's (1978) socio-constructivist learning theory and Bahktin's (1986) dialogical theory. This chapter had provided the rationale of the study by highlighting the research problems. It did so by raising the possibility of some problematic IPOL within a text-based learning environment, when nurses participated in IPOL with AHPs. This concern was raised in light of the persistent power relations between nurses and between nurses and other AHPs.

This chapter continued to provide the aim of this study by highlighting the need to obtain the experiences of HCPs who had engaged in IPOL in higher learning, especially when existing problems seen in post-qualifying IPL for healthcare students could potentially be multiplied and magnified in ACMC, where a face-to-face dimension was lacking for immediate feedback and clarification. In so doing, this chapter had raised the specific research questions to be addressed. This chapter had finally provided an overview on how the research was conducted so that the identified research questions could be answered whilst the overall aim of the study could be addressed. These discussions led me to the current stage, where I am discussing the rest of the thesis in the next few subsections.

1.5.2 Chapter 2: Literature Review

The second chapter is a discussion on the literature review. The aim of this chapter is to clarify and affirm my understanding of the field of this study in a greater context of IPOL at pre-qualifying/undergraduate and post-qualifying/post graduate levels. This chapter first provides the reasons for reviewing the selected existing body of research evidence about student experience of ACMC as a pedagogic tool for higher learning. The importance and necessity for a systematic review of papers about undergraduate/pre-qualifying and postgraduate/post-qualifying students in general, rather than specifically on post-qualifying healthcare students in mixed disciplines are highlighted.

In the review, the findings of the student experience are organised into three domains based on the nature of the experiences and the factors affecting those experiences. The findings were critically analysed and synthesized to provide the best approximation of healthcare student experience in using ACMC. This chapter provides an overview of the main findings and reiterates the reasons for the present study.

However unlike the chapter of introduction, the rationale of the study is given in light of the findings of the literature review; the knowledge gap in the student IPOL experience and the limitations of the research designs and research methods of previous research studies. This was possible as this literature review pays attention to the critical methodological issues germane to the research findings. By doing so, this chapter raises the pertinent questions to provide directions for the present study, based on an alternative methodology that is different from those which have been used in previous studies.

1.5.3 Chapter 3: Methodology and Methods

The third chapter explains the methodology on which the whole study is based embedded within my epistemological and ontological knowledge of nursing discourse. The purpose of this chapter is also to show the influence of my critical realist view about discourse to explain how I was led into a conscious engagement of a complex balancing act between securing an appropriate type and source of data and ensuring that my choice of a discourse tradition was in line with my ontological and epistemological knowledge of nursing language and the implicit power relations in healthcare. This chapter aims to demonstrate further from chapter 1, how I ended up with my choice of a CDA analytical tool by Fairclough (1995) in this study.

In order to fulfill the aim of this chapter, the continuing discussion first provides detailed information about the choice of the research methodology, design and methods, based on my ontological and epistemological knowledge of nursing discourse. The strengths and limitations of my choice of the data source in relation to the methodology of this study are discussed. A section on the importance for observing ethical considerations and the way informed consents were obtained and anonymity preserved in this study are also discussed. Towards the end of the chapter, the analytic procedure

is explained and a worked sample is provided to illustrate how the analytic procedure was carried out.

1.5.4 Chapter 4: Quantitative Analysis and Findings

The fourth chapter is a report on the findings of the quantitative analysis conducted on the online discursive practices of the HCPs. This chapter reports in detail the quantitative analytical procedures and its findings. The structural features which include the frequencies and nature of the contributions and patterns of the students' online interactions are revealed in this chapter to answer the first research question. This chapter ends by providing an explanation of the selection process of the texts as specimens of discourse data for CDA. It does so by demonstrating how the initial quantitative statistical analysis of the selected sample provides good references for selecting the specimens for CDA.

1.5.5 Chapter 5: CDA and Findings

The fifth chapter reports on the bare facts through the analysis by CDA. It organizes the actual findings through CDA according to the last four research questions in an attempt to answer each of them. This chapter mainly aims to deploy the selected texts for illustrative purposes and to reveal detailed information on the analytic procedure in which the results were derived from CDA. This is done with an aim to make explicit my interpretations of the interactive patterns that were determined by the quantitative analysis in chapter 4, and more importantly, it was to provide readers with adequate information on how the texts were interpreted and how the initial conclusions of the student IPOL experience were derived based on the illustrative examples.

1.5.6 Chapter 6: Discussion

The sixth chapter is a discussion on the information gathered in the previous two stages of the data analyses and the final stage of analysis which, strictly speaking, is the stage of evaluation of the previous analyses. The aim of this chapter is to demonstrate how the information gleaned from all three stages of the data analyses contributed to the development of a better understanding of the topics under exploration in this study. In the discussion, the linguistic features and lexical choices of the texts are provided to explain my observations. The findings of the three stages of analysis, which revealed students' learning experiences, are used to aid the discussion. This strategy is to ensure that any conclusions of student learning experience, derived from the observations of the interactive patterns are checked against students' own interpretations in the local context.

Basically, this discussion chapter is where all the results are taken into account and the main points of the study are critically analysed and examined. This is achieved when student IPOL experience was critically evaluated to establish how they are affected and/or determined by nursing language use in the text-based learning environment. The five research questions raised are therefore answered in this chapter to address the overall aim of the study.

1.5.7 Chapter 7: Conclusion

The seventh chapter aims to draw conclusions from the study. It does so by determining if the present study has supported or has refuted my initial concerns of the use of ACMC for IPOL in HE which involved nurses as learners. More importantly, this chapter is to determine if the findings are likely to be significant and persistent, to an extent in which their ramifications are widespread. From this point of view, the important aim of this final chapter is to highlight the significant implications of the

findings for practice. Based on the implications of this study, this chapter makes recommendations for appropriate educational strategies. It does so by evaluating the current practice with an intention to recommend strategies that are appropriate for future IPOL healthcare education in the three key areas; 1) professional growth for nurses; 2) practices of e-moderators and; 3) strategic mechanisms by policy makers.

The chapter then continues to explain the importance for disseminating the results of this study, and provide reasons for my intended various disseminating efforts. This chapter also provides a critical reflection of the whole study in terms of my reflexivity in this study. It explains the way my reflexivity was addressed, in relation to my choice of the research methodology and method. Finally, this chapter ends with some recommendations for future research, in the hope that a collective understanding of the different aspects of this research topic can be broadened.

1.6 Conclusion

This study was initiated as I felt attracted to the popularity of ACMC as a pedagogic tool for IPOL at first, or so I thought, until the true reason for my interest finally emerged; I became concerned by the rise in its demand for achieving flexible IPL in the presence of the ongoing implicit power relations in the nursing discipline. The value of ACMC for IPL cannot be disputed. However, whilst pressure adds to healthcare education providers to increase use of ACMC tool for IPOL, there was frequent reporting of negative experiences in work-based IPL, which involved nurses. So far, there was no rigorous evidence of IPL (Zwarenstein & Reeves, 2006). It is precisely the paradoxical issue between the values of ACMC for IPL and its absence of a face-to-face element in ACMC to clarify any problematic discursive issues related to power relations (that could result in the failing of IPL and the absence of IPL) that had formed the basis of the intent of this study.

Given the persistent power relations between nurses and AHPs, underpinning this study was Fairclough's (1995) version of CDA, in the hope that a plausible explanation of the students' IPOL experiences was obtained, so that measures could be developed and recommended to address any complex and multi-faceted issues in IPOL. However, any strategic measures would have to be based on concrete and empirical evidence, which was only produced in rigorous research studies. The fact that this research was highly subjected to the influences of my epistemological and ontological positions, my reflexivity was addressed at every stage of the research process (the mechanisms involved were described in each chapter). Indeed my reflexivity was addressed right from the start of this study, continuing into the stage of literature review. The next chapter demonstrates how this was achieved through the clarifying of my understanding of students' online learning experiences in a wider educational context.

Chapter 2: Literature Review

2.1 Introduction to the chapter

Since the invention of computer mediated communication (CMC) in the early 1970s, the technology has evolved to allow web-based communications to occur asynchronously from the form of electronic-mails to online discussion (Harasim, 2006; Hiltz & Wellman, 1997). Today, synchronous online discussion is even possible with the use of webcams and microphones whereby the online conversational experience is enhanced (Harasim, 2006). Yet it is asynchronous text-based, computer mediated conferencing (ACMC) which has become and remained a popular pedagogical model in e-learning, especially in postgraduate education, professional education (Bjarnason, 2007) and continuing healthcare professional development CPD (Sandars & Langlois, 2006). Its popularity was largely attributed to the technological ability of ACMC to encompass asynchronous online collaborative learning (OCL) and networking (DeNeui & Dodge, 2006; Harasim 2006; Sandars & Langlois, 2006) and reflective learning and hence, deep learning (Dewanyanti et al., 2007). Since the first use of ACMC as a pedagogical model in the mid eighties, its ability to encompass OCL had never stopped being an area of research interest (Harasim, 2006). Many research studies have been conducted to evaluate the pedagogical implications of ACMC. In the period between late-1980s and 2000s, many of these research studies sought to examine student experience and satisfaction (Harasim, 2006) and more recently, the social factors associated with students' online learning experience (Luppicini, 2007).

This chapter reviews this existing body of research on ACMC. The review has included papers about the experience of healthcare professionals (HCPs) learning in heterogeneous groups, as well as HCPs learning in homogeneous groups. It also includes papers about students from other disciplines in higher education. This was conducted in the hope that the experience of a diverse student population could provide

the best approximation of the experience of HCPs in their use of ACMC for interprofessional learning (IPL). Whilst the aim of this chapter is to review the research about student experience in the use of ACMC, its purpose is also to explore a host of factors including any technological and social elements, all which might affect student interprofessional online learning (IPOL) experience.

The literature review had no restriction in terms of the year in which the papers were published. Instead it has included all papers which were published as far back as the late-1980s, when ACMC was first evaluated for its use in higher education. This endeavour which included papers published in the early time period was to prevent any narrow attribution of student experience. This literature review was able to include papers published in the early years was based on the fact that despite the rapid technological advancement which resulted in a variety of ACMC systems available for pedagogic purpose, their technological features for OCL are similar, in that they allowed text-based communication to be conducted asynchronously. This means in cases if students' learning experience were reported to have been affected by a particular technological system, the latter was not likely to have comprised a unique technological feature that was not shared by other ACMC tools, including those of recent times. Hence it was important to expand the search, to even include papers that were exploring a technology that is no longer available.

Expanding the search was important, but so was keeping it focused. The next section outlines how this was ensured. Following this discussion is a report on the results of the search and critical analysis of the papers. In the analysis, attention was also paid to any critical methodological issues germane to the research findings, and by doing so, pertinent questions to provide directions for the present study are raised, based on an alternative methodology. This chapter concludes with the main highlights of the findings and recommends an alternate methodological approach for the present study.

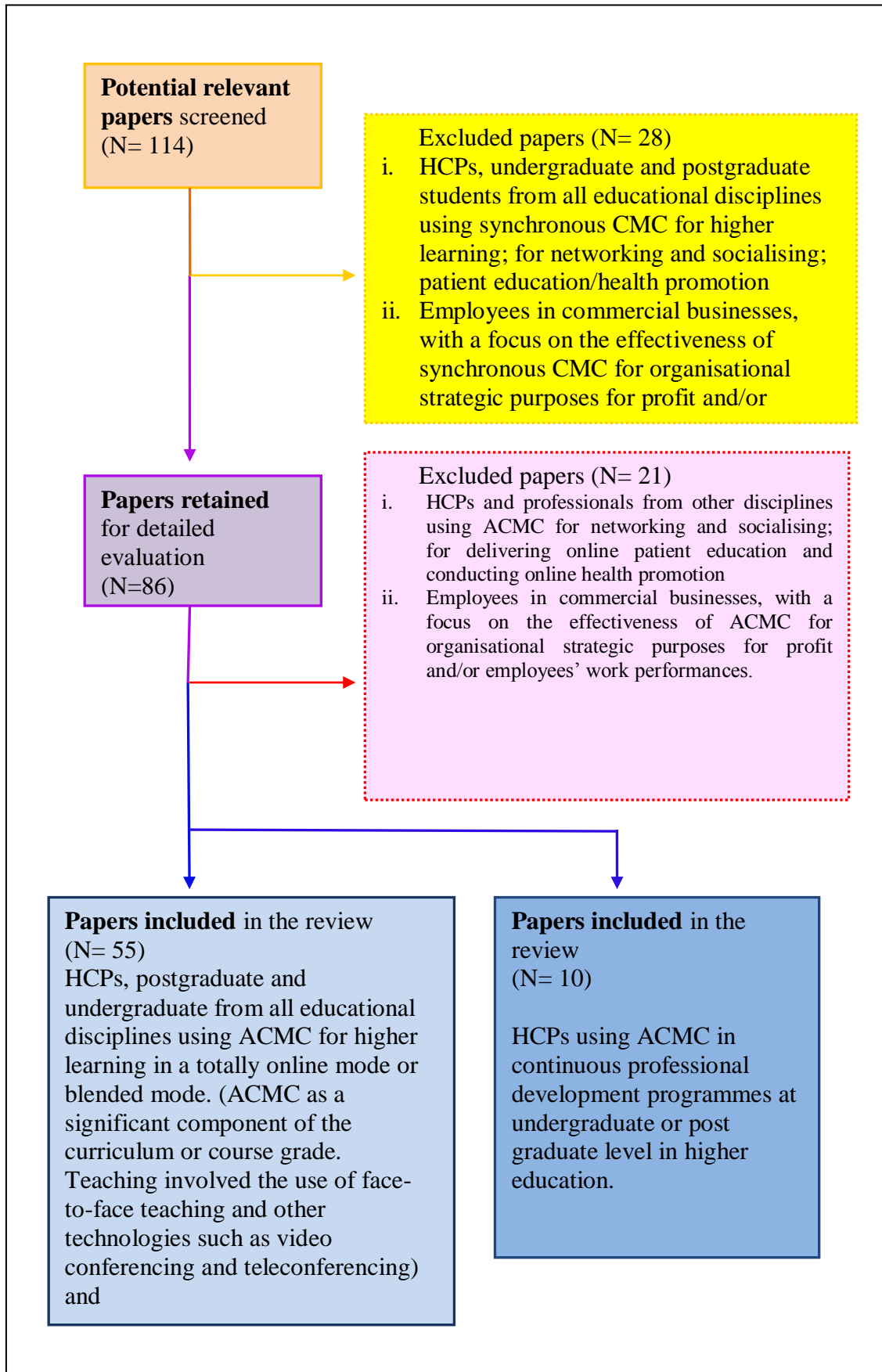
2.2 Strategy of the literature search

2.2.1 The importance for inclusion and exclusion criteria

Following the invention of ACMC in the mid seventies, many research studies were conducted about executive education, professional development and formal and informal education (Harasim, 2006). Besides, the rising research interest on the impact of ACMC on students experience in formal education was not confined to higher education institutions (HEIs), but was expanded to schools (Harasim, 2006). All these resulted in a substantial amount of literature, about user experience of educational applications of ACMC as well as organisational applications of ACMC in business.

Therefore, it was important to determine the scope of the literature search to focus primarily on asynchronous text-based CMC used in higher education and continuous professional education in HEIs. A set of inclusion and exclusion criteria was used to clarify the types of peer-reviewed empirical research papers published between 1987 and 2009. This was done in the hope that it would help to eliminate the possibility of reviewing any irrelevant papers, but more importantly, to help reduce the risks of missing any relevant ones. Ultimately, the intention for using the criteria was to retrieve papers which would help to set the context of the present research. Figure III in the next page provides the information on the types of papers included and excluded for this review. A quorum statement of flow diagram is used to demonstrate the selection process based on the two criteria.

Figure III A quorum statement of flow diagram demonstrating paper selection



2.2.2 The literature search

Since the review drew on papers which represented a wide range of disciplines, a systematic search was important. Medline and the Cumulative index for nursing and allied health literature (CINAHL) online databases were first used. This was to retrieve papers which were about healthcare professionals (HCPs) and allied healthcare professionals (AHPs). Boolean searching was employed with a combination of the following key words; 'asynchronous computer mediated conferencing', 'collaborative distance learning', 'asynchronous online learning', 'e-learning', 'higher education', 'student experience', and 'students' needs'.

The electronic search was repeated with the use of two other academic search engines; 'SwetsWise' and 'Proquest'. These two electronic search engines are the library's major providers of papers of many disciplines and they have been the most widely used search engines for educational research papers. The use of these two search engines was to increase the chance of retrieving more relevant papers about students in higher education, particularly those from educational disciplines other than healthcare.

Before any attempt was made to download the papers for review, the abstracts of all papers obtained electronically, were read to examine their relevance. The search was then continued with library searches. These searches were based on the reference lists of the papers which had been retrieved electronically, and hence they were targeted at key journals of interest. Such a technique when employed widened the scope of the search whilst keeping the search focused in the right direction.

2.3 Results of the search

2.3.1 Number of papers

The search through Medline and CINAHL system resulted in a total of 176 hits, and ten papers were found to be relevant. Ten papers were studies conducted to explore the experience of healthcare students in a homogeneous group and one was about HCPs in a mixed healthcare discipline. In contrast to the small numbers, eighty-eight papers were retrieved when 'SwetWise' and 'Proquest' search engines were used – These included those which had been retrieved from the databases of Medline and CINAHL. After a careful selection, an additional forty-seven papers were included in the literature review. The target searches based on the reference lists of the retrieved papers resulted in another eight papers included for the review.

All in all, the electronic and hand searches resulted in a total of sixty-five research papers. All these papers were studies about student experience of ACMC as an educational tool, based on the social constructivist theoretical approach to OCL. The papers were published in the period ranging from 1987 to 2009, the majority of which were published between the late 1990s and mid 2000s.

2.3.2 Characteristics of the papers

2.3.2.1 Educational disciplines/Levels

There were 55 papers about postgraduates, undergraduates and mixed academic level; 17 studies were purely about healthcare students (2 of which were about HCPs in mixed disciplines). There were another 10 papers about HCPs in continuous professional development, 4 of which were HCPs in mixed disciplines. Table 2.1 on page 41 provides information on the papers based on academic levels, educational and professional disciplines of the online courses, for which student online experience were investigated.

Table 2.1 Papers organised in accordance to educational disciplines and academic levels

Academic Level	Students by Educational/Professional Disciplines	Number of papers	
		Each Category	Total
Undergraduate	Nurses	4	18
	Student Nurses	3	
	Medical students	1	
	Other educational disciplines	8	
	Mixed disciplines (healthcare discipline-excluded)	2	
Postgraduate	Nurses	7	34
	Mixed healthcare disciplines	2	
	Other educational disciplines	25	
Mixed academic level	Mixed disciplines (student teachers, student nurses, nurses)	1	3
	Mixed disciplines (healthcare discipline-excluded)	2	
Continuous Professional Development	Medical Doctors	1	10
	Nurses	5	
	Mixed healthcare disciplines	4	
Total:			65

2.3.2.2 Methodologies of the papers reviewed

All studies used some form of qualitative research methods. In the late 1980's to early 1990s, when educational applications of ACMC were first evaluated, little was known about the phenomenon; qualitative methods were therefore appropriate to determine its parameters. Interviewing students and obtaining anecdotal records of students in progress on the online courses and /or post completion of the courses were common. Content analysis of the data collected from these qualitative research methods, were predominantly used to seek knowledge of satisfaction and perception of online learning from a student perspective. Such approaches were not only popular then, they had remained to be so amongst researchers, well into the twenty-first century. Thus, although more was already known about student experience of the educational applications of ACMC, qualitative research methods were still commonly used. One possible explanation for this observation was that information from students' perspectives was still important and had remained as the main interest of research to provide important insights for directions of educational application of ACMC.

There was another striking observation in this literature review, large volumes of research studies were case studies about specific groups of students; one reason for this was ACMC for learning was targeted at particular niches of students by those who were enthusiastic about ACMC for teaching and learning, and many research studies were evaluations of the educational effectiveness of pioneering work of the researchers. In the early days of ACMC development when research efforts were invested to examine its effectiveness, very few people had used ACMC for learning, while there were many others who might not even know of its existence. This was why each case study was not just about a specific group of students, but was also, about a very small sized group.

Still, the reason of targeted use of educational applications of ACMC may only help to explain the observation of small sample size in case studies done at the early

stage of ACMC development. By the mid 1990s when the use of ACMC was more wide spread, bigger sized samples should no longer be difficult to achieve. Yet, case studies of small sample sizes remained a predominant research approach. In this respect, the underlying pedagogical principle of text-based OCL might be a better explanation for the observation. It was generally agreed that OCL was only effective in small groups (Bates 1995; Hammond, 2000). In fact, a group size of not more than 10 participants in one conference was recently proposed (Schellens & Valcke, 2006). In this area of research, it was therefore reasonable to see the persistent trend of small-sized groups in case studies.

Nevertheless, by the early twenty-first century case studies of small-sized groups of students did give way to larger studies. The larger student populations available had allowed researchers to evaluate two to three conferences in one study. It had also allowed researchers to explore other ways to examine the student experience. Mixed-method approaches which involved the adding of surveys to the existing list of other qualitative research methods became common. During the same time period, research interest of student experience from students' perspectives was also extended to observable interactive patterns and in some cases to its relationship with gender issues. The extension of research interest to conference interactions had given rise to the use of transcript analysis tools (TAT) and Bales' (1950) interaction process analysis (IPA) for analysing students' interactions. However, the number of studies using these research approaches was limited. In those research studies which explored student experience, interviews and surveys of specific groups of students were still the predominant research method of choice. Hence, despite the fact that research studies on student online experience were from a wide range of educational disciplines, and have been continuously conducted over a span of more than two decades, studies are still not opened to a wide variety of methodologies.

2.3.3 Findings of the papers reviewed

The findings from the review were organised in Table 2.2, which provides a summative description of the three domains that emerged from all the studies, and the themes of each domain running across all the studies. To be as succinct as possible, each study was analysed under the themes it illustrates. In cases where the theme(s) was emphasized, studies were evaluated under the themes which best represented the findings. The sub-sections presented after this table, are my analysis and evaluations of the findings, based on the different themes.

Table 2.2 Summary of the findings of the literature review

Three Domains		
2.3.1 Technological Issues	2.3.2 Issues with learning	2.3.3 Social Issues
<p>2.3.1.1 Students' technological know-how</p> <p style="margin-left: 20px;">2.3.1.1.1 Technological problems</p> <p style="margin-left: 20px;">2.3.1.1.2 Effects of technological problems</p> <p style="margin-left: 20px;">2.3.1.1.3 Technological problems & HCPs</p> <p>2.3.1.2 Permanent recording and asynchronous text-based discussions</p> <p style="margin-left: 20px;">2.3.1.2.1 Perceived risks</p> <p style="margin-left: 20px;">2.3.1.2.2 Effects of perceived risks</p>	<p>2.3.2.1 Perceived purpose of the conference</p> <p>2.3.2.2 Nature of interactions and its effects</p> <p>2.3.2.3 Flexible but demanding learning</p> <p>2.3.2.4 Perceived support from tutor</p>	<p>2.3.3.1 Sense of Belonging</p> <p>2.3.3.2 Interactive patters: Gender issues/ Educational disciplines</p>

2.3.3.1 Technological issues

2.3.3.1.1 Students' technological know-how

2.3.1.1.1.1 Technological problems

Problems related to access were commonly reported (Admiraal et al., 1998; Cartwright, 2000; Cooper et al., 2004; Cragg, 1994; Curran et al., 2003; Farrell & McGrath, 2001; Hammond, 2000; Lynch, 2001; Maor, 2003; Salmon, 2000; Wisenberg & Hutton, 1996). In earlier studies (Cragg, 1994; Harasim, 1987; Wisenberg & Hutton, 1996), the problems were mainly associated with the slowness of the inefficient dial up system supported by telephone lines. Students were generally frustrated that they were easily disconnected by incoming telephone calls. Even with the introduction of the broadband system for internet connection in the mid 1990s, problems with access were still commonly reported as a concern by students (Admiraal et al., 1998; Cartwright, 2000; Cooper et al., 2004; Curran et al., 2003; Farrell & McGrath, 2001; Lynch, 2001; Maor, 2003; Salmon, 2000; Wilhelm et al., 2003). Hence, problems due to the inefficient dial up system might not be solely responsible for students' problematic use for reaching and using data transmission lines.

Many studies found that students registered for online courses did not necessarily possess the minimum prerequisite technology skills (Cragg, 1994; Curran et al., 2003; Hughes & Daykin, 2002; Lynch, 2001; Wilhelm et al., 2003). Technological difficulties encountered were usually about the general technological feature of communication tool, rather than problems associated with a specific type of software (Admiraal et al., 1998; Cooper et al., 2004; Curran et al., 2003; Salmon, 2000). Cooper, *et. al.* (2004) found that undergraduate nursing students lacked the competence for navigating around WebCT learning management software. Technical problems such as not knowing where to locate and read messages from others, and post comments were also common amongst the HCPs (Cragg, 1994; Curran et al., 2003).

2.3.3.1.1.2 Effects of technological problems

Technical problems encountered by students had resulted in frustration (Cartwright, 2000; Cooper et al., 2004; Cragg, 1994; Farrell & McGrath, 2001; Lynch, 2001; Maor, 2003; Wisenberg & Hutton, 1996) as well as anxiety in using computers (Curran et al., 2003; Saunders & Heyl, 1988). In the study by Maor (2003) to evaluate the effectiveness of an on-line unit which aimed to familiarise practising teachers with the available technologies, one of the three graduate students, in his reflective account (Maor, 2003) revealed how he had first assumed the simplicity of the use of APMC technology, and later, discovered how complicated it was, even to an extent of preventing him from participating in the conference. In contrast to his experience, one of his peers, being the only one with a computing background, felt that APMC provided the space for her to interact actively as well as for her to be able to develop a sense of belonging.

The observation was not surprising because students, who were technologically incompetent, were likely to find the constructivist learning environment threatening and confusing (Dillon & Gabbard, 1998) and were unlikely to participate actively. Obviously when access and interactivity are interconnected (Townsend et al., 2002), students would only participate in learning when access and use of the technology became less problematic.

2.3.3.1.1.3 Technological problems and healthcare professionals (HCPs)

There was evidence to suggest that students were reluctant to participate when they were technologically incompetent, thus, the lack of technological competence could give rise to a less than satisfactory conferencing system. Nevertheless, the rising importance of online networked management in healthcare had perhaps reduced the gap between technological know-how of the HCPs and advances in the technology. In recent studies, the majority of HCPs were demonstrated to have the necessary technological competence for OCL (Lund et al, 2002; McKenna & Samarawickrema, 2003; Hurst, 2005). Even if healthcare students struggled with the technology initially, they were quick to reach the required level of technological competence for online discussion (Alexander et al., 2003; Atack & Rankin, 2002; Cragg, 1994; Hughes & Daykin, 2002; Mitchell et al., 2007). Nurses who reported frustrations with the technology had proactively invested time and efforts to acquire the required skills and knowledge (Cragg, 1994).

Therefore, even if technological problems might still be a barrier for some HCPs, they were not as prevalent as before. This meant that even if technological incompetence was a barrier to learning, it would only be amongst the minority. Besides being low in occurrences, technical problems were also transient for those who had encountered them. Presumably, whether HCPs were technologically prepared for learning using ACMC as a tool or not, all who participated in online learning were unlikely to be deprived of equal chances to enter the social network to participate in OCL.

2.3.3.1.2 Permanent recording and asynchronous text-based discussion

2.3.3.1.2.1 Perceived risks

When McGugan (2002) used an action research approach, with a variety of qualitative research methods based on interviews and students' anecdotal records to assess the effectiveness of ACMC learning, the undergraduate students were found to have liked the permanence of online posting. Students felt that it had allowed them to go over what other learners had said. Then again, this same group of students were also uncomfortable because of the permanent feature (McGugan, 2002). Students generally felt that they were constantly being 'watched', and the 'mistakes' they made (including spellings) could not be deleted in ACMC (McGugan, 2002; Peters & Hewitt, 2009).

Computer communication difficulties associated with the permanent text-based nature were also common amongst the post graduate students (Burge, 1994; Hammond, 2000; Murphy & Coleman, 2004; Ross et al., 1994). However, student concerns were more than about the fear of making mistakes in the public domain. In the study by Murphy and Coleman (2004) to examine the challenges of a group of graduate students in online learning, graduate students were not just concerned with the effects of their inability to delete posted messages. Students were more concerned that any mistakes they had made in earlier postings would 'force' them to respond to their own messages for revision. These students felt that such acts, implemented out of the intention to clarify, had disrupted the 'flow' of discussion and hence, had ironically created a lot of confusion and ultimately, frustration in their learning experience.

In addition, graduate students felt that ACMC, by its nature allowed them to express their opinions and ideas in no other way except text, increased their risks of easily misinterpreting others and also their risks of being misinterpreted by others (Curran et al., 2003; Finegold & Cooke, 2006; Murphy & Coleman, 2004; So & Brush, 2008). Similar feelings were reported by students from a Master of Education course

(Burge, 1994). They felt that the lack of feedback, specifically from visual and aural cues in text-based communication, had led them to feel out of synchronisation with discussion. However, for another group of graduate students in the study by Tiene (2000), difficulties in text-based communication were even considered to be a disadvantage. Similar feelings were shared by a group of Medical doctors (Curran et al., 2003). One of them explained in an interview that they were not just concerned with issues of confidentiality, but they were more worried about the likelihood for their messages to be interpreted in a different light in different contexts.

2.3.3.1.2.2 Effects of perceived risks

Students in general were simply not comfortable with submitting their comments online. They had remained non-interactive in their discussions with minimal participation, even after they had overcome problems with technological access (Burge, 1994; Curran et al., 2003; Finegold & Cooke, 2006; Murphy & Coleman, 2004; Naidu & Oliver, 1996). In the study by Wiesenberg and Hutton (1996), students revealed that they had struggled to articulate or create their own 'theory-in-use' in relation to each topic. These students expressed that the difficulty was not only in regard to their expectations of their intellectual ability but also to the excitement from having to think about what they agreed or disagreed with what others had posted. In some situations, just to avoid taking comments the wrong way, students admitted that they might not even respond to the postings by others (Murphy & Coleman, 2004; Vonderwell, 2003).

It appeared that anxiety from the fear of being misinterpreted, owing to the text-based medium was strong enough to deter conference interaction, and subsequently even participation. This was even in the case, whereby student participation in the conference was assessed and graded (Murphy & Coleman, 2004; Wiesenberg & Hutton, 1996). Whilst students found non-interactive participation an ideal way to cope with

their anxiety in conferences, this had ironically heightened the feeling of isolation and on some occasions, feelings of frustration (Murphy & Coleman, 2004; Ocker & Yaverbaum, 1999; Wisenberg & Hutton, 1996). This was especially so when students tended to attribute the lack of responses from peers to them being offended by the messages (Murphy & Coleman, 2004).

These findings were consistent in a case study by Saunders and Heyl (1988) which was about a group of HCPs. Unlike others who participated in CPD (Curran et al., 2003), this group of students had to maintain active participation because students were graded for their online discussions. These students expressed that the great difficulty for them to commit their thoughts into writing had given rise to their feelings of discomfort in the group.

This explained why there were students who were still not convinced about the benefits of technology, and were sure that the rapport in a classroom would never be replicated on screen (Atack & Rankin, 2002; McGugan, 2002; Karpova et al., 2009; Pena-Shaff et al., 2005; Vonderwell, 2003). It seemed that many students had attributed their low participation and interactions to the text-based nature of ACMC. However, it appeared that it was not the technological feature, but rather, the quality of the discussion atmosphere, which had produced an effect on the rate of students' participation and interaction. Naturally, student's efforts invested in the discussions, would ultimately determine the success of building student rapport. In the case of HCPs in a mixed-discipline, it appeared that any group discomfort which was claimed by students was generated by student's own messages (Peters & Hewitt, 2009; Saunders & Heyl, 1988).

2.3.3.2 Issues with learning

2.3.3.2.1 Perceived purpose of conference

In a study to evaluate the use of ACMC as a blended approach to learning (Admiraal et al., 1998), student teachers were seen to use ACMC to exchange emotional support and not for reflecting on their teaching or for exchanging pedagogical content knowledge. In contrast, the opinion that ACMC is most suited for information transfer was put forward in a case study of 25 healthcare students in a graduate level professional healthcare programme (Saunders & Heyl, 1988). However these students' rating of the appropriateness of computer conferencing reflected their views on conferencing as being more appropriate for exchanging information, displaying agreements, requesting suggestion and information, exchanging opinions rather than bargaining, persuading others and displaying disagreements and frustrations. Similarly, in other healthcare education, ACMC was valued as a medium to gain insights of global healthcare issues (Andrusyszyn et al., 1999; Iwasiw et al., 2000) or to seek collaborative information sharing amongst the HCPs (Andrusyszyn et al., 1999; Curran et al., 2003; Moen et al., 2000).

In contrast, students in general, felt that responses in ACMC were made for 'point grabbing', rather than interactions useful for learning (Murphy & Coleman, 2004). Students had associated the decline in the quality of their discussion with forced contributions to meet course requirements (Murphy & Coleman, 2004). This finding was mirrored in another study conducted by Oliver and Shaw (2003) whereby strategies for encouraging student participation in online medical education were investigated. Contributions were found to be not strongly interactive and the medical students were simply 'playing the game' of assessment and only making postings that earned marks, but rarely contributed. Consistent with these findings was the study by Curran et al. (2003) in which a transcript analysis tool (TAT) was used to analyse the nature of

discussions, the nature of participation was found to consist primarily of independent messages with a minimal learner-to-learner interaction. In addition, a study by Hallett and Cummings (1997) on an undergraduate psychology course demonstrated that interactivity amongst students was a very elusive goal, as students did not post additional comments beyond the required assignments. This finding is in line with result of another study conducted by Dewiyanti et al. (2007) to investigate the learning experience of small groups of 4-11 persons in ACMC. In general, students had either maintained non-interactive discussions, or had engaged in discussions to meet course requirement in terms of quantity and not quality.

HCPs in mixed disciplines and nurses in homogeneous groups might have been different. However, it appeared that they saw ACMC as a medium for social networking. It was likely for their discussions of pedagogical content to be done at a superficial level. In fact, more often than not, HCPs had assumed a position of uncritical acceptance of the orthodox (Cragg, 1994; Hughes & Daykin, 2002; Saunders & Heyl, 1988) whereby discussions were aimed at social networking (Cragg, 1994; Saunders & Heyl, 1988).

2.3.3.2.2 Nature of online interactions and its effects

In the study to investigate the effectiveness of ACMC in replacing face-to-face collaboration amongst the 43 graduate students who enrolled in the core information systems class, as a requirement of Master of Business Administration and Master of Science/Information Science (Ocker & Yaverbaum, 1999), students were less satisfied with the asynchronous learning experience. Dissatisfactions were in terms of the group interaction process, as well as in the quality of group discussion. Even if meaningful interactions in conferences were perceived by graduate nurses (Andrusyszyn et al., 1999), they felt that the quality of the conference dissipated as the course progressed.

Two papers about undergraduate nurses (Buckingham, 2003; Witucki et al., 1996) also reported that meaningful interactions, which challenge thinking, did not exist at the start of the student conferencing experience, and were seen to emerge only when the programme was coming to an end (Buckingham, 2003; Witucki et al., 1996).

In one study to explore the role of ACMC in creating interdisciplinary practice amongst a heterogeneous group of healthcare students, the majority of whom were nurses, who did not see any value in conferencing (Becker et al., 2000). Students generally felt that the conference was just stereotyped views of some professions, who dominated discussions. They felt that the project should be discontinued owing to their experience of limited computer access, as well as to their experience of conferencing failure in the entire online course.

While students generally prefer critical discussions to promote learning (Andrusyszyn et al., 1999; Becker *et. al.*, 2000; Buckingham, 2003; Hughes & Daykin, 2002; Ocker & Yaverbaum, 1999; Witucki et al., 1996), HCPs in mixed disciplines did not like the stereotyped views of certain professionals which were left unchallenged (Bacigalupo et al., 2001; Becker *et. al.*, 2000). Unfortunately, conferences generally comprised large amounts of superficial and uncritical discussions. Interactions amongst nurses which were perceived to be meaningful and promoted critical and reflective learning (Andrusyszyn et al., 1999) albeit their low occurrences, were not even reported to be present in conferences where nurses were learning with other HCPs. Students in general were frustrated with the quality of interactions (Bacigalupo et al., 2001; Becker et al., 2000; Buckingham, 2003; Hughes & Daykin, 2002; Ocker & Yaverbaum, 1999; So & Brush, 2008; Witucki et al., 1996).

When Rourke and Kanuka (2007) investigated the barriers to online critical discourse in a graduate-level humanities course, critiques were frequently found to be perceived as personal attacks. The authors concluded that the absence of critical

discussions were most likely a result of students being keener to meet social agendas and to maintain group harmony in a social network than to engage in critical discussion to achieve any pedagogical purpose. If this was the case amongst the students in general, critical discussions were not likely to emerge in any conference, and even if they did, they would not last long.

This was the case when nurses and student nurses engaged in online learning in homogeneous group (Andrusyszyn et al., 1999; Buckingham, 2003; Witucki et al., 1996). Otherwise, in many other conferences, critical discussions did not even emerge (Becker et al., 2000; Hughes & Daykin, 2002; Ocker & Yaverbaum, 1999; Fahy, 2007). Whilst the persistence of uncritical discussions in conferences required further investigation, it appeared that uncritical discussions which were the last thing students wanted may have been ironically generated and maintained by the students themselves. This was particularly so amongst those learning in diverse populations of mixed healthcare discipline (Bacigalupo et al., 2001; Becker et al., 2000; Saunders & Heyl, 1988).

2.3.3.2.3 Flexible but demanding learning

Nurses generally recognised the benefit of ACMC for the ability to allow participation in discussion without being in a specific place or at a specific time (Alexander et al., 2003; Andrusyszyn et al., 1999; Cragg, 1994; Landis & Wainwright, 1996; Iwasiw et al., 2000; Moen et al., 2000). The asynchronous nature of ACMC was in fact appreciated by many other students, particularly the post graduates who felt that participation in learning was convenient, as it could fit around their work schedules and family commitments (Alexander et al., 2003; Burge, 1994; Curran et al., 2000; Goh & Tobin, 1999; Hammond, 2000; Kim et al., 2005).

However, whilst the majority of these students felt that online learning permitted a good balance of university, family and work commitment, they felt that more work was required than in 'regular' classes. Many had complained about information overload, uncritical interaction and no socialisation (Finegold & Cooke, 2006; Karpova et al., 2009; Paran et al., 2004). Negative feelings associated with the use of ACMC in terms of the higher costs and extra time involved in downloading and uploading files and to send messages, and technical malfunctions were shared by healthcare students (Alexander et al., 2003; Becker et al., 2000; Cragg, 1994; Saunders & Heyl, 1988; Curran et al., 2003). However, the lack of socialisation as a problem was less commonly felt by HCPs in homogeneous groups in learning (Andrusyszyn et al., 1999; Cragg, 1994; Proksch, 2001; Wilhelm et al., 2003).

There was a general feeling that ACMC was more time consuming (Alexander et al., 2003; Cartwright, 2000; Finegold & Cooke, 2006; Hammond, 2000; Karpova et al., 2009; Peters & Hewitt, 2009; Saunders & Heyl, 1988). Some students felt that reading text took longer than listening to voices (Hammond, 2000; Murphy & Coleman, 2004). There was a group, who felt that ACMC restricted the time for learning, because students felt that discussions were not relevant unless students responded within a narrow time frame (Burge, 1994). In many other cases, there was a common feeling that the amount of electronic information generated from the use of ACMC was huge. Students were frustrated when they had to spend time deciphering the huge amount of information generated, when very often they were not of any value to discussions (McKenna & Samarawickrema, 2003; Murphy & Coleman, 2004).

The huge amount of irrelevant electronic information could be a result of many students' attempt to avoid being misinterpreted (Murphy & Coleman, 2004; Curran et al., 2003) and to meet course requirements, but in some cases, it was a result of students feeling the need to keep up with the others in discussions (Burge, 1994; Murphy &

Coleman, 2004; Peters & Hewitt, 2009). For whatever reasons that might be, there was a shift in the emphasis of contributions from quality to quantity, this had caused some students to become overwhelmed with the huge volume of discussions, and others to lose track with the flow of conversations on a particular topic (McGugan, 2002; Murphy & Coleman, 2004).

It appeared that the flexibility in learning offered by the technology which had allowed 24/7 online learning, was well liked by students, especially mature students. However, the technology was not as promising in terms of flexible learning. The flexibility of learning anytime and anywhere as long as there was access had provided a chance for those who could afford the time for active discussion. However, this had upset those who could not. The flexibility of the technology had left those students who simply could not afford to participate actively, to feel compelled to do so. As a result, students might end up fulfilling the expectation of active participation, but without giving enough time to create critical and meaningful discussions. This inevitably, created a vicious cycle of continuous production of discussions and students' frustration from not being able to cope with the resultant large volume of messages.

It therefore appeared that the flexibility in learning which was well liked was simultaneously disliked for its ability to create demanding learning (Alexander et al., 2003; Burge, 1994; Goh & Tobin, 1999; McKenna & Samarawickrema, 2003; Murphy & Coleman, 2004). However, it was the boundless purposive act of dialogical interactive practices of students, in terms of time and space, rather than the technological feature of flexibility *per se*, that was responsible for turning flexible learning into demanding learning.

2.3.3.2.4 Perceived support from tutors

Based on three learners' own stories in a case study by Maor (2003), support from the facilitator was considered critical for creating a motivating environment for learning. Tutor support was particularly crucial for students in the initial period when the online experience was still new and isolating. One of the students felt that it was the moderator who had helped her in making the discussions relevant to her practice, and suggested, if she were left without the help and support from the facilitator, she would have ended up becoming a spectator rather than a participant. This finding supported Mason's (1991) conclusion in a study on interactivity in a distance education course, which suggested that tutors had a major role in directing online classes. Mason (1991) was led to this conclusion when only one third of the students were actively providing and receiving online feedback in a student-centred learning environment. The results of a paper by Oliver and Shaw (2003) which investigated the strategies for encouraging student participation in online medical education, had also illustrated the importance of tutors' support. The study had demonstrated that tutors' expertise and tutors' enthusiasm were the major factors stimulating student participation.

Tutor support was important for motivating participation and guiding discussion, especially when students first engaged with the online learning process whereby the learning experience was still new, and, when students lacked the confidence for learner-centred learning. Hence, students who perceived constant tutor support were likely to report satisfaction with the online courses (Davie, 1988). Indeed, the general lack of feedback from e-moderators which was reported as a student concern was reported as a cause for student frustrations in many studies (Atack & Rankin, 2002; Farrell & McGrath, 2001; Finegold & Cooke, 2006; Juntunen & Heikkinen, 2004; Kearsley et al., 1995; Kim et al., 2005; Murphy & Coleman, 2004; Paran et al., 2004; Sturgill et al., 1999; Vonderwell, 2003; Wilhelm et al., 2003).

Kearsley et. al. (1995) with the experience of ACMC also found that there was a general concern about the slow response time of e-moderators amongst students at graduate level. However this was despite their findings which indicated that ACMC had worked very well for these students compared to traditional classes. Whilst students' level of satisfaction, critical thinking and problem solving skills in online courses were found to be higher than students in traditional classroom learning, these graduate students had also demanded the constant presence of the tutor. Similar findings were reflected in another paper by Murphy and Coleman (2004) in exploring the experience of 20 students working towards a Master of Education in information technology. The frustrations vented continuously by the students were not about tutors' lack of support in learning; Students' dissatisfaction was due to the lack of tutors' direction and organisation in the flow of discussions. Such negative feelings were intense amongst HCPs in mixed disciplines who had encountered numerous problems in their group work (Juntunen & Heikkinen, 2004). Many HCPs in mixed disciplines had attributed their group problems with the lack of guidance and support, as well as control from e-moderators (Bacigalupo et al., 2001; Becker et al., 2000; Juntunen & Heikkinen, 2004).

When students at postgraduate level, who were capable of independent learning, entered the flexible learning sphere and social network, with the presence of other students, they too, appeared to prefer traditional forms of learning. They had also demanded the presence of a teacher to guarantee the security of a teacher-led environment (Kearsley et al., 1995; Murphy & Coleman, 2004; Proksch, 2001). The demand for tutors' presence was understandable for learners who struggled with the pedagogical contents of learning. However, the same demand came from learners, who were independent in learning and were comfortable in the constructivist learning environment. This observation might not be as clear and would require further

investigation. Certainly, the demand for tutors' presence for control, on top of support and guidance amongst the HCPs in mixed disciplines warranted further investigation.

2.3.3.3 Social Issues

2.3.3.3.1 Sense of belonging

In the study by Maor (2003), it was found that the permanent nature of the conference reduced students' sense of isolation because the 'class' was opened '24/7' and everyone was 'always' present. This finding was consistent with that in another study (Clarke, 2002) about student teachers who were pursuing a post graduate certificate in education (PGCE). Students felt that the conference, which was opened to all members of the educational community, not only provided an avenue for reflective learning but also allowed a community of practice to develop. Such positive findings were reflected in studies about teachers and baccalaureate nursing students, where students' responses were found to grow in length and depth as the course progressed (Buckingham, 2003; Witucki et al., 1996).

Similarly, when Wiesenberg and Hutton (1996) taught on an ACMC course (Master of Continuing Education), students who preferred the traditional classroom were found to appreciate the democratisation of the ACMC classroom. Students generally felt that they had freedom to participate as fully as their more verbose classmates and also, their contributions were valued on an equal level. These findings were consistent with others in general (Harasim, 1987; Kaye, 1989; Vonderwell, 2003) as well as with studies about nurses in a homogeneous group for learning. Nurses generally appreciated the proficiency of computers for asynchronous networking with colleagues (Atack & Rankin, 2002; Andrusyszyn et al., 1999; Cragg, 1994; Landis & Wainwright, 1996; McKenna & Samarawickrema, 2003; Naidu & Oliver, 1996) and felt that ACMC provided them the equal opportunity to participate (Cragg, 1994; Witucki et

al., 1996). In the qualitative study by Cragg (1994), which was about seven nurses who completed the first post-registered nursing course via ACMC, nurses reported that they were able to function as a group and actively participated. These nurses claimed that ACMC had brought them back to their training days when there was so much group cohesiveness. Nurses generally felt that the closeness of the group developed over time in the conference had helped them to overcome technological difficulties and also, had encouraged nurses to exchange personal information at a very intimate level.

The findings suggested that technology had provided an equal opportunity for many students to develop a sense of belonging. However, it was only nurses and students in their homogeneous group of learning, who had prevalently reported their positive experience with regards to this aspect of their learning (Atack & Rankin, 2002; Andrusyszyn et al., 1999; Cartwright, 2000; Cragg, 1994; Hurst, 2005). None of the HCPs in a mixed discipline of learning had reported any feelings about belonging to their groups. In contrast, domination from a few professions and lack of collaborative learning were reported in all studies about HCPs in mixed disciplines, which involved nurses (Bacigalupo et al., 2001; Becker et al., 2000; Juntunen & Heikkinen, 2004; Lund et al., 2002). It appeared that the sense of belonging which emerged in many studies about nurses (Atack & Rankin, 2002; Andrusyszyn et al., 1999; Cragg, 1994; Landis & Wainwright, 1996; McKenna & Samarawickrema, 2003; Naidu & Oliver, 1996) did not appear in any of those when nurses participated in IPL with other HCPs.

2.3.3.3.2 Interactive patterns: Gender issues/ Educational disciplines

There is a growing body of research on gender and conferencing. Studies which focused on gender issues have demonstrated a movement away from research methods that focused primarily on students' perspectives on satisfaction with the online medium towards the nature of online communicative practices. However, research studies as

such, were lacking in higher education. Nevertheless, the few studies available had provided some insights to another important aspect of the student experience. After a year of implementing ACMC in a university setting as part of the Sloan Foundation-funded project, Ory et al. (1997) investigated male and female student use of, and attitudes about, the technology. In this large study of students across 22 curricula in six different colleges there was no significant gender difference found in the online communication patterns. This was supported by a recent study by Fahy (2007) to investigate the nature of stories constructed by graduate students in a computer conference. By using Bales' (1950) IPA which addressed the task and socio-emotional agendas of groups, Fahy (2007) found that the stories told by students which were generally descriptive and not analytic in nature, were not gender related.

However, three large studies (Caspi et al., 2008; Pagnucci & Mauriello, 1999; Ramsomair, 1997) about students from diverse backgrounds, contradicted the above findings. Gender differences were demonstrated in the three studies. This was particularly so in the study by Pagnucci & Mauriello (1999), which used online posting of student papers to facilitate peer critique, many women felt that their use of a male pseudonym increased the credibility of their contributions. Nevertheless, whilst Caspi et al.'s (2008) demonstrated no significant difference between the two gender, in terms of their liking of online educational environment, the other two studies (Pagnucci & Mauriello, 1999; Ramsomair, 1997) show that composition group effects, rather than gender differences *per se* that affected the quality of conferences.

Indeed, HCPs such as nurses in their homogeneous professional groups (Andrusyszyn et al., 1999; Cragg, 1994; Hurst, 2005) have found the learning network less problematic than HCPs in heterogeneous groups. Critical discussions, which were avoided by many, were also reported to have been engaged by groups of students with similar professional identities (Andrusyszyn et al., 1999). Obviously there was a need

for research on computer mediated learning to focus on the effects of group compositions, especially in terms of different professional disciplines. However, research efforts seemed to lag behind the flux of activity in practice. Online dynamics and experience, in terms of professional identifications or educational disciplines, had not received much attention in research.

Having said this, there was a study by Zhu (2006) to analyse four asynchronous online discussions participated by 71 students from 2 different disciplines; Teaching and Healthcare. Although the focus of this study was not about student experience, it provided me further insight of the interactive practices of HCPs. When Zhu (2006) investigated the relationship between student interaction and cognitive engagement, two distinct patterns of interactions had emerged from the groups. One type of interaction was in the form of a web like type of interaction; this was believed to be an interaction in which every member interacted with two or more other members (Zhu, 2006). The other was interactions in the form of a star-typed interaction. The latter was mostly centralised, with the flow of interactions being either unidirectional or bidirectional. Zhu (2006) explained that a star type of interaction was a reflection of interaction with one central point or person. This being the focal point was where the potential to control the agenda and direction of discussion resided.

A web like type of interaction had emerged in the conference of which HCPs were required to respond to at least two peers in every week. In contrast, when there was no restriction put to the contributions to discussion by undergraduate healthcare students, a star type of interactions emerged. The study by Zhu (2006) might help to explain the problematic interactions of HCPs learning in mixed healthcare disciplines (Bacigalupo et al., 2001; Becker et al., 2000; Juntunen & Heikkinen, 2004; Saunders & Heyl, 1988). If the star shaped interaction was indeed prevalent amongst the HCPs, such interactive pattern, which implied low network density and interpersonal relations (Zhu,

2006) could give rise to dialectic tensions, which could, in turn be magnified in any ongoing interactions of HCPs of mixed professional disciplines. Unfortunately, the focus of Zhu's (2006) study on communicative practices was not on online dynamics, it therefore did not make any enquiry about the phenomenon in that direction.

Zhu's (2006) findings had alerted me to the possibility of a unique interactive pattern of HCPs which might not even be anything new. The consistent findings of dissatisfaction with conferences, in terms of collaborative working amongst the HCPs in mixed disciplines could have been a result of the interactive practices of HCPs, as reflected in Zhu's (2006) study. However, despite the constant appearance of dissatisfaction with conferencing amongst the HCPs in research studies, reasons for the findings in the perspective of interactive practices of the different healthcare disciplines had never been able to attract any researchers' attention. Hence, it had never been part of any research agenda of OCL, and had never been pursued by researchers who explored student experience of HCPs in a mixed discipline.

2.4 Synthesized findings

2.4.1 Conclusive remarks

The methodological perspectives of the papers reviewed were not always explicitly stated, but what was obvious, was that the research methods were predominantly qualitative. In many research studies, issues were either uncovered through interviewing or focused group discussions, if not, the anecdotal records of learners. These methods depended heavily on students' ability to recall in a reflexive account. Student experience from students' perspectives would only be as rich as what students could recall, but also would be only what students chose to reveal. Whilst there were instances where information was inevitably left out, there could be instances where information was left out on purpose (Mason, 1996).

This was particularly so, when the knowledge obtained through interviews, discussions and the anecdotal records were in the context in which the researchers were having some form of power (Mason, 1996). This was mainly due to the social position of the researchers as e-moderators in the course being evaluated. The social position of any researcher, as an academic, could automatically disadvantage the students to feeling threatened (Taylor, 2001). In some instances, the felt threat could be so intense that it could be enough to cause student information to be adjusted to what students wanted the researcher to know (Mason, 1996). Another aspect of the problem was that many of these researchers were early up takers or adapters of ACMC, and hence were enthusiastic about this form of learning. Many of these papers reviewed were research studies conducted to evaluate researchers' pioneering project work of educational applications of ACMC. Hence there was a high chance that any student experience was affected by the researchers' enthusiasm. Hence, the 'Hawthorne effect' described by Roethlisberger as the phenomenon in which subjects change their performance in response to being studied (Gillespie, 1991) might have been a significant problem in these research studies.

Nevertheless, by the late 1990s, when ACMC for learning was more widespread, researchers were able to expand their evaluation beyond one targeted course. Hence, they were able to evaluate courses of which they were not involved as e-moderators. Such an opportunity had helped researchers to negate the effects of their prior connections with students. It had also provided researchers with a chance to explore mixed-methods approaches. Both strategies had the potential to eliminate any bias, if present.

However, the qualitative approaches involved content analysis of the students' reflexive account of their experience. Even if the methods were based on an ontological assumption of students as social actors in the construct of reality, the effects of students'

dialectical relationship in students' co-construct of their experience were not explicitly stated as part of the research literature under review. These qualitative methods which have been used on their own were, therefore not consistent with the socio-cultural constructivist learning theories approach (Vygotsky, 1978) to OCL. With the introduction of mixed method approach, to complement qualitative findings, research efforts could be taken further away from being in line with these theories.

However, in some papers, transcript analysis tool (TAT) and Bales' IPA both of which focused on students' interactive patterns, were used (Curran et al., 2003; Fahy, 2007; Finegold & Cooke 2006; Zhu, 2006). The methodological principles underlying these research methods are interactive features and aspects of social network theory (Fahy, 2001). For these reasons, the analysis demanded attention to the content and structure of discussions, and hence the 'communicative whole' (Cook & Ralston, 2003). The analysis through these analytic methods was more in line with Vygotsky's (1978) theory of socio-cultural constructivist learning underpinning distance learning via ACMC. Certainly, their use was a sign of researchers moving towards methodological perspectives and methods which would commensurate with the values and ideas of OCL. However, analysis was still within the immediate discursive environment. There was no consideration given to the social practices of the students outside the context of ACMC. Yet, discussion in the conference from which learning experience were generated, was supported by the dialogical practices and discourse of students, with each student bringing with them, their own knowledge, past experience and values to create the online discourse.

Whether student experience were obtained from interviews, anecdotal records and discussions, or whether they had then been verified and complemented with the help of TAT and IPA to analyse the interactive patterns, the position which the researchers had assumed was more objective in a subjective-objective continuum.

Information regarding student experience was processed and not analysed (Morgan & Smircich, 1980) and certainly inadequately analysed, with an ontological assumption based on student experience as a social construct. When researchers did not maintain a focus on collaboration and interaction supported by communications technology as key defining features of OCL in their analysis, they could never provide insights to findings that were as useful as they might have been.

Having pointed out the methodological concerns, the findings in this review are nonetheless valuable and are indicative of the work in the present study. Emerging from the findings are issues, many of which warranted further investigation, which should only be by research methods, derived from a methodological approach which is in line with theories of social constructivist learning in OCL. This will be further discussed as implications for the present study in section 5, after the next section, which highlights the main findings of the papers reviewed.

2.4.2 Main highlights of the literature review

Overall there were mixed-research findings on student experience with ACMC. The interesting observation in this review was that within the same course, students displayed different level of satisfaction and had perceived the values of OCL differently. HCPs in different group compositions also reported their satisfaction with the conference differently. Pre-qualifying healthcare students and HCPs in homogeneous groups were generally positive, and HCPs in mixed disciplines were less so. In situations when students were not well equipped with the knowledge and skills of the technology, individual participation and interactive learning with peers were negatively affected. However, not all students lacked technological skills and knowledge. Studies conducted more recently indicated that the majority of students had the required technological skills. Besides, students from earlier studies who did not have prior technological skills and knowledge would also have acquired familiarity with the

technology as the course progressed (Cragg, 1994; Hughes & Daykin, 2002; Mitchell et al., 2007). Thus, continuously confronting students in a constructivist environment were not technological problems *per se*, but complex problems which were psycho-social in nature, all of which had arisen from the students' own interactive process and the nature of their discourse. The main findings are highlighted as follows:

1. Students in general, nurses and doctors in their homogeneous groups reported satisfaction with the discussion forum despite having initial technological difficulties
2. Students (especially postgraduates and HCPs), mostly liked ACMC for its flexibility but simultaneously they had found learning via ACMC extremely demanding
3. Students in general, particularly the HCPs (including nurses) who participated in IPL, reported more negative than positive experience
4. Students attributed their negative experience with the following:
 - i. Initial technological difficulties
 - ii. Lack of guidance and support from tutors
 - iii. Permanent and text-based nature of learning
 - iv. Group interactions (Large in quantity but low in quality)
5. Students, especially HCPs, longed for critical discussions but were not willing to take the associated risks
6. HCPs, like other graduates who were already technologically competent and who had demonstrated great ability in independent learning, were also demanding for tutor's presence in the medium
7. Students' strategies to cope with the challenges they encountered were:
 - i. To avoid commenting on messages from others or avoid discussions altogether (even if students were graded for discussions)
 - ii. To engage in superficial discussions to meet course requirement

- iii. To confine discussions to information exchange and social and emotional support
(common amongst the HCPs; especially nurses in homogeneous group for learning)
8. Students, particularly healthcare students in homogeneous groups who adopted the above coping strategies reported positive feelings about ACMC
9. The coping strategies had caused peers who wanted to learn to feel frustrated having to waste time logging on. This in turn caused peers to avoid participating
10. Continuously confronting students (included those who were technologically competent) in a constructivist environment appeared to be problems associated with the technological features. They were socio-psychological in nature and seemed to have arisen from the students' own interactive practice and discourse
11. Group compositions, instead of gender issues, appeared to have some form of influence on the interactive patterns and nature of discourse, which affected the learning experience
12. Group compositions in relation to professional disciplines were relatively an untouched area in research
13. Many studies had adopted a position which reflected more a positivist paradigm and the research approaches were not consistent with the theoretical ideas underpinning a constructivist approach to learning in OCL.
14. The few studies which recognised that student experience are dialogical and co-constructed by students had used TAT and IPA to focus on the interactive patterns of conference discourse
15. The use of TAT and IPA was not consistent with the idea of constructivist learning. Analysis of the text was within the immediate conversational environment, consequently, the knowledge and values of which students brought with them to the immediate context for discussion, were not considered in the analysis to fully account for student experience

2.5 Implications for the present study

2.5.1 Knowledge gap in the body of literature

2.5.1.1 Multifaceted and complex issues were not fully explained

From the papers reviewed, student experience with ACMC did not always coincide with the oft-cited technological benefits of learning. The technological features of ACMC which was meant to enhance OCL inhibited as much as (or perhaps more than) it facilitated students in their adaptation to OCL. However, continuously confronting students in a constructivist environment was more than just straight forward technological problems or plain problems associated with the technological features. The examinations and re-examinations on the assumptions of the full potentials of the text-based and asynchronous nature of ACMC from students' perspectives had resulted in findings which seemed to suggest that student experience were influenced by the students' own interactive practices and discourse, which were multifaceted and complex.

In the few research studies which examined the interactive practices in relation to specific social elements of gender issues, the difference in gender was not able to account fully for the differences in the student experience. In the case for HCPs, their experience in homogeneous groups was distinct from those in mixed healthcare disciplines. The interactive practices and discourse might have been a result of the different types of professional disciplines as influencing factors of students' orientation to the interactions, which ultimately, had created and affected the student experience. Yet the effects of group compositions with regards to the differences in students' professional disciplines on student experience were not explored. It was therefore imperative that the current study explore student experience based on the differences in students' professional disciplines.

2.5.1.2 Experience of healthcare professionals in mixed disciplines - not fully explained

The few studies which indicated ACMC as a beneficial endeavour were mostly about healthcare students in homogeneous professional groups. The majority of these studies with positive findings were about nurses learning as a homogenous group. However, it is important to note that their interactions were superficial, and did not go beyond information exchange. Presumably, positive findings were the more stereotyped views of nurses who did not engage in critical discussions (Andrusyszyn et al., 1999; Cragg, 1994; Hurst, 2005). In many cases, healthcare students from non-nursing disciplines, and HCPs in their learning in mixed healthcare disciplines had all found the use of ACMC for interactive learning to be problematic.

Notwithstanding the possibility that the superficial discussions might have helped to maintain the amicable relationship amongst nurses, but why were the learning experience amongst nurses in their homogeneous group so different from that when nurses were learning in a mixed healthcare discipline? Were the interactive patterns to do with the power relations between nursing and other healthcare disciplines? Was there no hybridisation of nursing discourse to facilitate the learning process? What exactly were nurses and other HCPs experiencing in their IPL via ACMC remained unknown. Certainly to answer the above questions, there were other questions that needed answering first;

- i. What are the communication and interactive patterns of interprofessional online learning by healthcare professionals in higher education?
- ii. What are the contents and forms of texts produced by nurses in the conference?
- iii. Are there any codes or technical vocabularies in nursing discourse?
- iv. Is there any evidence of a dominating discourse in nurses-nurses and nurses-allied healthcare professionals (AHPs) interactions in the constructivist learning environment?

- v. Is there any evidence of attempts being made by nurses to make learning accessible/inaccessible to others?

The reason for these questions was that nursing in clinical practice had all the while, been implicated in issues of power relations (Adams, 2000; Cheek & Porter, 1997; Cheek & Rudge, 1994; Knott & Latter, 1999; Oudshoorn et al., 2007). It is appreciated that this concept deserves further explanation, and this is provided in the next chapter of methodology and methods. For now, it is pertinent to recognise that, if an accurate account of the experience of HCPs in interprofessional online learning was to be given, one had to be aware of the social dynamics that existed between nurses and between nurses and the AHPs, and more importantly, their relationship with the interactive practices between the different groups of HCPs.

In essence, the review had summarised knowledge of student experience from a diverse student body from students' perspectives, which are important insights for decision making about IPL. However, studies to examine issues arising from the perspective of HCPs in IPL situations were far too few to provide adequate insights to student experience. Besides, since the majority of these studies use interviews, the full potential of the text-based and asynchronous nature of ACMC and its underpinning theoretical concepts from the context of group dynamics in a community of learning amongst a heterogeneous group of HCPs were difficult to ascertain. To explore the full nature of online experience of HCPs, the interactive practices of a typical group of HCPs ought to be examined. In other words, the examination is best carried out in an authentic online learning situation. In this regard, the online conference should be treated as important data source and the online messages as important data in this study, which seeks understanding of the student experience in interprofessional online learning.

2.5.2 Limitations of the research methods of existing research studies

Research studies did not adopt the methodological perspectives and methods that are commensurate with the values and ideas of OCL. Studies in healthcare education were similar to studies of other disciplines and were mostly positioned towards the objective end of the methodological perspective continuum. Whilst qualitative research methods were used, they were to evaluate the effectiveness of OCL from student perspectives, and not to analyse learner experience and the effects of the experience in OCL. The assumption of the researchers made about reality, was what Morgan and Smircich (1980) described as adapter or information processor. When interactive practices were examined, there was no analysis of what occurred beyond the immediate context. Hence, texts produced in the conference were analysed with the remainder of social life placed outside the discourse, so much so that the discursive element as part of social life (Fairclough, 1995) was separated from it in the analysis.

Yet, an ontological assumption based on the concept of students in the social construction of reality, each bringing with them the variable interpretative resources to bear on the text (Fairclough, 1995) was required in the studying of the student experience. By having a clear distinction between the discursive (text in the conference) and the extra discursive (students' social practices), the analysis would never explain what occurred beyond the text, and certainly, not the intertwined relationship between text and social practices.

Therefore, it was imperative for the present study not to ignore any social practices which might have been inevitably, brought into the context of discussion. Otherwise, the current study would also not stand any chance to fully explain the multifaceted and complex issues of student experience in the conference, which was produced in no other way, except dialogically, under the influence of the social order and practices of each individual student participant.

2.6 Conclusion

The limitations of these studies reviewed were related primarily to the generalisability of the methodological approaches. Nevertheless a substantial amount of important knowledge on student experience was obtained and provided valuable insights to student. This knowledge, mostly derived from students' perspectives, emerged as three separate but related domains. It is now known that student experience were affected by students' technological know-how, the technological features of OCL, the amount of tutor support student perceived, and quality of peers' online behaviour related to issues of gender and possibly professional discipline. However, what really seemed to affect student experience was students' own interactive practices and the conference discourse. Based on the literature review, a large part of the problems faced by students was associated with the socio-psychological dimension. These problems had arisen from the interactive practices of students and conference discourse in a dialogical social constructivist environment which was then intensified by the asynchronous and text-base nature of the technology.

While some researchers continued to use interviews and anecdotal records, some researchers had moved on to use conference analytic tools and IPA to explore student experience based on student interactive practices (Curran et al., 2003; Fahy, 2007; Zhu, 2006). This was an important step closer to recognising that research methods should be consistent with the theoretical concepts underlying constructionist and collaborative learning. Nevertheless, student experience might have been perceived to be dialogically constructed in a socio-constructivist environment only. Previous research studies did not allow analysis to go beyond content and structure analysis of the interactive patterns. As a result, social practices, part of which makes up the discursive practices, were still ignored in the analysis. The social elements attributed to the student experience were therefore not explored any much more than before.

Having said that, it was appreciated that research methods were chosen, based on the overall research efforts in each study. Research methods were to serve the research requirements, which were consistent with many different positions along the subjective-objective continuum (Morgan & Smircich, 1980) which in turn, was determined by the unique purpose of each research study. In the case of the papers reviewed, the ultimate aim was to evaluate student experience rather to analyse them.

For the same reason, the analytic tool in the present study was selected on the basis of its potential to best answer the research questions in the current study (Section 4.1.2). With that in mind, it was important to ensure that the analytic approach chosen, was not only consistent with the concept of dialogical and collaborative learning in the constructivist environment of ACMC, but it should also be one which potentially addressed the power relations implicit in nursing practice and in healthcare practice. Otherwise, an accurate account of the online experience of HCPs in mixed disciplines, when the majority of the participants would most likely be nurses, was not likely to be achieved. In this regard, in the selection of an appropriate research methodology, much consideration was therefore given to the different qualitative discourse analytic approaches and also the discourse theories of different disciplines underpinning the approaches.

The decision process which involved thinking of an analytic approach which was in line with the overall aim of the present study had resulted in the using of a version of critical discourse analysis (CDA) developed by Fairclough (1995). It is appreciated that further explanation as to how and why Fairclough's (1995) version of CDA was considered an appropriate approach in the present study is still required and this is therefore, provided in the next chapter of methodology and methods.

Chapter 3: Methodology and Methods

3.1 Introduction to the chapter

Based on the notion of discourse as social action, discourse is constitutive; it is a form of social action rather than a 'do nothing domain' (Edwards, 1997) in that it involves work of all who participate in it to co-produce meaning (Wetherell, 2001). In this light, the texts generated by students in an asynchronous computer mediated conference were complex; they were cultural and psychological products actively co-constructed by students in ways which made things happen and which also brought social worlds into being to give rise to student online learning experience. As indicated in the previous chapter of the literature review in an asynchronous text-based learning environment, students' responses were indeed determined by the nature of the initial messages, and these in turn, had an effect on how others subsequently responded (or did not respond). Hence, student experiences were locally produced by students' discursive practices which students collectively drew on in order to organise their conduct in the form of asynchronous discussion.

In this regard, the meaning residing in the text-based messages was crucial information of student online learning experience, and for this reason, language was a possible means of studying the online learning experience. With this in mind, if one best way to gain knowledge of human experience was to uncover it from the perspective of those involved (Mason, 1996) as in the case of learning via asynchronous computer mediated conferencing (ACMC), student learning experience could be retrieved from examining students' discursive practices in the medium, those of which were reflected in students' conference messages. Hence, threaded discussion was taken as discourse data for analysis in this study. Of the many discourse analytic approaches, critical discourse analysis (CDA) which drew on Fairclough's (2003) critical social view of language was employed in this study.

The rationale for this methodology is further explained in this chapter, which is organised into 4 sections. The first section provides a detailed account of my ontological and epistemological position in nursing discourse. This is done with the aim of providing the reasons for the choice of Fairclough's version of CDA, a methodology on which this study was based. The second section is dedicated to explain the methodology of CDA that was employed in this study. In this section, the development and theoretical origins of Fairclough's CDA analytical framework are highlighted to further clarify the rationale for Fairclough's version of CDA (Fairclough, 1995). The third section explains the methods of this study. It first provides a brief account of the choice for the data source. Explanation included the purpose of the online module and the characteristics of the student participants. Reasons for the choice of data source are also provided in the light of my 'insider' position as a student participant who had a nursing background. This discussion is then followed by a brief discussion on how the ethical issues of this study were addressed. The third section ends by providing a detailed account on how the data were collected and selected for this study. The last section of this chapter provides a detailed account of the analytical procedures. A worked example is offered in this section to demonstrate how the interactional analysis was performed in this study.

3.2 Discourse issues in nursing and their relationship with others in practice and learning

3.2.1 The development of standardised nursing language

All around the world, intense efforts from many health authorities have been devoted to introducing the extended roles in nursing in response to a changing healthcare environment (Rose et al., 1997; Fry & Jones, 2005; Bonsall & Cheater 2008). In effect, advanced nursing practices involved in complex nursing roles such as nurse

prescribers, nurse consultants, nurse anaesthetists, all of which once fell under the medical realm became the remit of many nurses in today's nursing (Hunt & Wainwright, 1994; Dowling, *et. at.*, 1996). In the United Kingdom, the emphatic push for nurses to take up the extended roles in nursing started as early as the 1970's (Masterson, 2002), and this push became increasingly intense in the early 1990's (Wainwright, 1994). As a result of the push for nurses to engage in advanced nursing practices, nurses might have been socialised to use medical language more than they ever did before; a process being identified as medicalisation of nursing language (Hyde et al., 2006). This process might have been inevitable because nurses in advanced nursing practices were not only expected to communicate effectively with the medical team, but they were also expected to function in their advanced nursing roles, all of which overlapped that of doctors (Newbold, 1996; Searle, 1982; Walsh et al., 2005).

Since medicine has always been considered a superior profession, nurses in advanced nursing practices might automatically see themselves as being promoted to a higher status in healthcare; a process known as professional self-aggrandisement (Marsden, 1995; Rose et al., 1997). The extending of nurses' role into the medical domain could indeed potentially narrow the social status gap between medicine and nursing, otherwise, doctors would not have perceived nurses' increased capability and responsibility in healthcare associated with nurses' extended role as a threat to their status (Wilson et al., 2002). In fact, it was common for advanced nurse practitioners to be perceived by the general public as mini doctors (Kay, 2002; Nevin, 2005) or otherwise as wanting to become one (Willets, 2007). However, nurses who took on the specialist roles saw themselves as 'maxi' nurses and not 'mini' doctors (Ball, 2005).

Whether nursing had extended into medicine, whereby nurses had assumed more of a medical role and turned into mini doctors or had nurses simply expanded their nursing roles to become maxi nurses, the evolved roles in nursing had long resulted in

nursing adopting very specific terms and language from the medical profession. This process of medicalisation of nursing language (Hyde et al., 2006) in turn, gave rise to the production of the standardised nursing language concepts and terminologies of the North American Nursing Diagnosis Association (NANDA International), Nursing Interventions Classification (NIC) and Nursing Outcomes classification (NOC); 'Nursing diagnoses', 'nursing history', 'nursing interventions' (Orem, 1995; Beyea, 1999). These terms and language which were adopted by nursing had then become common nursing concepts and terminologies/codes. These in turn were later viewed as essential for defining a phenomenon unique to nursing practice (Orem, 1995; Beyea, 1999).

Nevertheless, it has been argued that the goal of using standardised nursing language was to achieve effectiveness in defining patients' problems which were to be solved by professionals across different healthcare disciplines and not by nursing alone (Ahern, 2003; Beyea, 1999; Rantz, 2001). Despite this argument, the use of medicalised language as standardised nursing language was mainly for nurses to describe and evaluate interventions, which were purely nursing based (Ahern, 2003; Rantz, 2001). This process which was later known as nursing care planning was an activity which was uniquely nursing (Further discussion on this is provided in chapter 5). For this reason, it could be argued that the use of these nursing concepts and terminologies in standardised nursing language that were previously utilised from the medical profession were integrated and used as routes to unify nursing language, but also for nurses to gain identity of the nursing profession (Brito, 2007; Crawford et al., 1999).

3.2.2 Standardised nursing language and nurses' higher status in healthcare

In order to understand the dialectical relationship between the evolving nurses' language and nurses' professional identity and their higher status in healthcare, appreciation of the relationship between language and social status is needed. According to Allen et al. (2007), there was a separation of status and language between nobility and peasantry. This concept of language and status was initially enunciated by a sociolinguistic, Basil Bernstein. In Bernstein's (1971) sociolinguistic work, he asserts that there was a direct relationship between societal class and language, and to Bernstein (1971: 76),

Forms of spoken language in the process of their learning initiate, generalize and reinforce special types of relationship with the environment and thus create for the individual particular forms of significance.

According to Allen et al. (2007), this concept of language and class is still very much in evidence today. Indeed Bernstein's theory (1971) of language and social status appeared to have been shared by many (Allen et al., 2007, Lederer, 1991), particularly those who were interested in language development in children (Hoff-Ginsburg, 1998; Hoff, 2003; Hus, 2001; Morgan & Goldstein, 2004; Shatz et al., 2003).

It is not the intention of this section to become embroiled in a discussion of the manifestations of language in relation to status. Hence only two recent studies are highlighted to illuminate the possibility that the concept between language and social status might not be something of the past. The first study was conducted by Hoff (2003) which looked at children's language experience as one aspect of child development. In this study, Hoff (2003) found that the rate of children's growth in vocabularies was highly attributed to maternal speeches which in turn, were determined by the family's social economic status (SES). The second study was conducted a year later by Morgan & Goldstein (2004) to investigate how mothers of low SES could be taught to use decontextualised language during storybook reading, so that their preschool children

could be socialised into using a language which could help them meet the language demands of the classroom. Although the study conducted by Morgan & Goldstein (2004) was unlike the study conducted by Hoff (2003) that helped to explain the relationship between language and social status, it was also conducted on the basis that language use might have been influenced by differences in SES. In other words, the study by Morgan and Goldstein (2004) was like the other studies (Hoff-Ginsburg, 1998; Hoff, 2003; Hus, 2001; Shatz et al., 2003) in that it too, suggested that language use was determined by SES. These studies (ibid) which focused on children's language development and SES highlight that the separation of language and status between the different social classes which Allen et al. (2007) purported, was not too far away from reality in that language might still be distinguished into commonality language and elite language in this 21st century.

Relating this concept to nursing; if language use was indeed associated with social class (Allen et al., 2007; Bernstein 1971; Lederer, 1991), the efforts to unify nursing language based on nursing concepts and terminologies/codes to something which is uniquely nursing (Mryyan, 2005) might have been a way in which nurses resisted the medical language (Hamilton & Manias, 2006) which was once so well sought-after for integration as standardised nursing language. This assumption was based on the desire to professionalise nursing in its own right rather than in its traditional identity as hand maidens to the medical doctors (Brenchley & Robinson, 2001; Thompson & Stewart, 2007; Radcliffe, 2000).

3.2.3 The effects of standardised nursing language on individual nurses

If indeed the evolving role in nursing was an attempt to remove nurses' traditional identity as hand maidens to medical doctors (ibid), nurses' use of standardised language alongside nurses' evolving role was apparently a hegemonic struggle of nurses to form a higher status in healthcare (Hamilton & Manias, 2006). This assumption might not have been an exaggeration simply because language which belonged to any particular group identified and defined its membership and communication based on that unique language was the means to promote power and authority (Fisher, 1995; O'Connor, 2005). In this respect, the integration of a standardised nursing language adopted from the medical profession had the capability to 'select' nurses and reward them with successful registration with the nursing professional body. This in turn then helped nurses to secure a form of authority in healthcare to undertake autonomous practice in patient care (Fisher, 1995; O'Connor, 2005). In this regard, the language that nurses adopted from the medical profession has now become unique to nursing (Orem 1995) and was thus likely to continue to be used by nurses, such that it become a second nature to them. If this happens, it may not occur to nurses that they are required to critically reflect on the nature of nurses' standardised language.

Having said that, whether standardised nursing language will or has become a second nature to nurses is not clear. Certainly, to establish where commonality of language ended and an elite nursing language began was not easy (Allen et al., 2007). From my experience as a student nurse, and later, a clinical nurse, verbal exchanges between nurses in any general medical or surgical disciplines had never deviated from the form of a 'unique nursing language'. Many nurses working in these general disciplines were not advanced practitioners. Presumably they were less likely to have internalised and integrated the medical language to an extent as far as nurses in

advanced nursing roles. Yet, their communications were already meant for the ears of only those who were part of the nursing community. It was common to find junior student nurses who were still working towards qualifying as registered nurses struggling to understand nurses' hand over reports. Very often, the struggle was not only confined to nurses' hand over reports at patients' bedsides, but it would also extend to naturally occurring conversation during coffee breaks. Nevertheless, the nearer student nurses were to qualified status, the less struggles to interpret the language of nursing became. Furthermore, it seemed that at the final stages of any student career, student nurses were not only able to decode what qualified nurses said, but they were also able to discursively conduct themselves with greater efficiency in using the terminologies/codes which they previously had problems understanding.

This personal experience of mine was in fact, mirrored in an anecdotal evidence of many other nurses and was also echoed in a study by Hyde et al. (2006). Whilst analysing nursing documentation, the authors (Hyde et al., 2006) found that the way patient care was communicated via medicalised nursing language was influenced by a biomedical world view. Similarly, in another study conducted by Crawford et al. (1999) to characterise the genre of nursing report language, Crawford et al. (1999) found that certain genres of nursing language which comprised technical vocabularies of the nursing profession were prevalently used by final year students and were just as much as that by the qualified nurses. It seemed that, by the time student nurses were completing their professional education to qualify for registration as professional nurses, they were sharing similar standardised nursing language with the qualified nurses. In this regard, student nurses were said to have also inducted into the hegemonic discourse of the nursing discipline (Crawford et al., 1999). Apparently, nurses in general, whether they were advanced practitioners or not, are socialised into using a language unique to nursing even before they were qualified as professional nurses.

3.2.4 The benefits and consequences of standardised nursing language in the nursing profession

What were crucial about the use of a unique language in relation to perceived nurses' higher position in healthcare were other accompanying benefits it offered the nursing profession. Some nurses believed that the exclusivity of language generated in nursing had produced exclusive knowledge which was unique to the nursing profession, and therefore helped in its survival as a profession (Watson, 1996) whilst also advancing the discipline of nursing (Orem, 1995). In some instances, it was even believed that it had extrapolated nursing to elitism (Allen et al., 2007). In such situations, the standardised nursing language is not likely to remain a repressive feature of nursing practice. On the contrary, nurses' standardised language influenced by medicine had become another source of governmentality and social regulation, that it was even considered a necessity for advocating on patient's behalf in certain circumstances (Hyde et al, 2006). Hence, being able to speak in a unique language even if it meant abstract technical terms to some and comprehensible to only a few, it has the potential to enable nurses to achieve a higher social and professional status in the discipline of healthcare, and therefore was likely to qualify nurses to take the lead in healthcare discourse (Fisher, 1995; O'Connor, 2005).

Whilst the above assumption was not conclusive, efforts in defending nursing from the perspective of nursing language were certainly intense amongst some nurses (Brito, 2007; Fawcett, 2001; Flanagan & Jones, 2007; Watson, 1996). These nurses were adamant in their need for the standardised nursing language to remain exclusively theirs, for they were fearful of nursing being seen as a profession extending modern medicine (Watson, 1996) rather than a profession in its own right. Hence the position in denying that the evolving roles in nursing had led nurses to become 'mini' doctors was maintained, as demonstrated in the recent survey by Ball (2005). As a result of the great

concerns that nursing language might be lost to medicine in today's rapidly transforming healthcare environment (Flanagan & Jones, 2007), there was an urge for language initiatives development to keep the established nursing language intact, so as to better define the nursing phenomenon (ibid).

Due to the ideology of the concept of a higher status in terms of power and authority implicit in the nursing language, it was unlikely that nursing language would be relinquished by nurses. On the contrary, it might even be well protected and guarded against any 'dilution', and ultimately retained for its uniqueness. The deeply held values about the standardised nursing language could therefore continue to remain stable over time, and become the unconscious activity of nurses. In effect, the power and authority embedded in the language of nursing (Allen et al., 2007) would remain implicit in nurses' talk, and would continue to be present in all aspects of nursing. This could explain why nursing in clinical practice had continued to be implicated in issues of power relations (Cheek & Porter, 1997; Cheek & Rudge, 1993; Cheek & Rudge, 1994; Knott & Latter, 1999; May, 1990; Oudshoorn et al., 2007; Wilson, 2001). However, the issues of the implicit power relations in nursing could also result in hegemony in many other aspects of nursing (Jervis, 2002). If that was the case, the horizontal and hierarchical violence as a long tradition in nursing (Farrell, 1997; Woelfle & McCaffrey, 2007) as discussed in chapter 1 may well continue to remain in some aspects of nursing. In this regard, the power implicit in the social relations between nurses and their healthcare colleagues that might have already negatively affected interprofessional working (IPW) (Lau et al., 2007; Woelfle & McCaffrey, 2007) may well adversely affect the learning experiences when nurses meet each other or when they meet other non-nursing healthcare professionals for interprofessional learning.

3.2.5 The advice given to nurses on nurses' language use

As discussed in chapter 1, there was a strong emphasis in multidisciplinary healthcare delivery and collaborative interprofessional learning and working (IPL/W) for effective healthcare in the healthcare agenda (World Health Organisation, 1988; DH, 2003). This could have accounted for the emerging efforts devoted to raising nurses' awareness of the limitations of standardised nursing language (Clarke 1999; Fawcett, 2001). Nurses were advised to translate their language into a language understandable by healthcare professionals in non-nursing disciplines, so that effective communication between nursing and non-nursing disciplines could be achieved (Fawcett, 2001). However, this piece of advice was given in the context which did not extend beyond the aim of nurses' research work to secure a place in non-nursing or transdisciplinary journals. Furthermore, accompanying this advice was the warning against any successful translation that it might result in the loss of a distinctive nursing language (Fawcett, 2001).

It was apparent that recognising the way to advance the profession via the means of communicating nursing knowledge to non-nursing disciplines was limited to a small pool of nurse researchers. This recognition however does give credence to nurses' concern that nurses might lose out in any cross-disciplinary publications. The acknowledgement of the limitations of nursing language could result in further hegemonic struggle in nursing language for it to transform into yet another form of language which is more accessible to HCPs from non-nursing disciplines. This process of linguistic change can be explained using Fairclough's (1995) concept of 'technologisation of discourse'. According to Fairclough (1995), 'technologisation of discourse' occurred when feelings of dilemma were generated from any top-down discursive change to result in people strategising to accommodate, compromise or resist in linguistic forms (Fairclough, 1995). Relating this concept to nursing, the ideology of

the higher status in nursing associated with nurses' standardised language and the need for change imposed by nurse researchers would place nurses in dilemmas that nurses might end up using hybrid discourses. However, the latter was more likely to be confined to nursing research reports published in non-nursing journals.

3.2.6 The presence of standardised nursing language in IPL is unknown

From the discussion so far, it appears that the use of a standardised nursing language is likely to persist amongst some nurses in clinical practice. However, there is still a lack of evidence to suggest that standardised nursing language which might be affecting interprofessional working has pervaded all aspects of nursing that it would adversely affect interprofessional learning. Nevertheless, what was interesting from the literature review was when student experience on communications and interactions were positive amongst nurses in their homogenous group, learners' interactions were conducted at a superficial level which did not go beyond the purpose of exchanging information (Loke, 2007). On top of this observation, when nurses formed part of the heterogeneous group engaged in interprofessional learning (IPL) via ACMC, negative experience became common (Loke, 2007). Furthermore, in an IPL situation, a star-shaped type of discursive pattern with one person always taking the lead in discussion was uniquely found amongst healthcare professionals (HCPs) and not amongst students learning in mixed non-healthcare education disciplines (Zhu, 2006).

Apparently, the learning experiences of nurses in homogeneous groups were different from those in IPL. There seemed to be an association between the interactive patterns and the implicit power relations between nurses and the allied healthcare professionals. What exactly were nurses and the AHPs experiencing in their IPL via ACMC? Certainly to answer this question, other questions needed answering first:

- i. What are the communication and interactive patterns of interprofessional online learning by healthcare professionals in higher education?
- ii. What are the contents and forms of texts produced by nurses in the conference?
- iii. Are there any codes or technical vocabularies in nursing discourse?
- iv. Is there any evidence of a dominating discourse in nurses-nurses and nurses-AHPs interactions in the constructivist learning environment?
- v. Is there any evidence of attempts being made by nurses to make learning accessible/inaccessible to others?

To answer the above research questions which focused on the relationship of nurses' language use and the social events within the constructivist text-based environment, a theoretical framework of Critical Discourse Analysis (CDA) was required for a systematic approach to analysis. Therefore, Fairclough's (2003) version of CDA was selected to expose the interactive practices of the nurses and allied healthcare professionals (AHPs) in the medium. However, it was chosen more for its underpinning epistemological and ontological theories and not just its systematic approach to discourse analysis. Although the discussions on the issues of nursing discourse had in one way or another, suggested that Fairclough's version of CDA was the appropriate choice for this study, the next section on methodology is provided in the hope that it explained further the relevance and usefulness of this analytic tool in the current study.

3.3 Methodology

3.3.1 Critical Discourse Analysis (CDA)

3.3.1.1 Development of CDA

The development of critical discourse analysis (CDA) was a result of the combination of a wide range of theoretical traditions in social theory and linguistic work. Nevertheless, its development was very much rooted in various language philosophies, including that of ethnomethodology, the functional linguistics tradition and systemic functional linguistics (SFL) (Rogers et al., 2005). However, due to the many subsections of discourse analysis within the social tradition, there were different approaches to CDA; including French discourse analysis (Foucault, 1972), social semiotics (Hodge & Kress, 1988; Kress, 2003), social cognitive studies (Van Dijk, 1993) and multi-modal methods (Hodge & Kress, 1988).

Amongst the different approaches was Fairclough's version of CDA. Like others, Fairclough's approach to CDA also drew from many different and overlapping versions of theories and techniques from a wide range of disciplines. Fairclough (1992; 2001) claimed that his approach to CDA was interdisciplinary and indeed it was commonly used by researchers from various disciplines to answer questions about language and society. In Fairclough's development of CDA, a linguistic theory known as systemic functional linguistics (SFL) developed by Halliday (Halliday & Hasan, 1976) was employed to challenge the conventional linguistic position which assumed the neutrality and reflectiveness of language. Based on SFL, language use is explained in terms of the form and function of interactions. Hence, not only could interactions be understood textually and interpersonally but they could also be clarified at the level at which they were situated in a wider societal context. Systemic functional linguistics theorists posit that language users were capable of choosing from the meaning-making potentials which were available to them to represent and construct dialogue. Thus, in the

perspective of SFL, language use required efforts from participants and was therefore a creative process. Fairclough's (1995) approach to CDA was based on his assumption that language influenced the context in which language occurs. The context, in turn had an influence on language production (Fairclough, 1995). Hence, Fairclough is in harmony with Halliday that he too, saw language as dialectic, and language use, a social construct. In addition, Fairclough's approach to CDA also included the cultural and historical act of meaning making, which was emphasized in SFL.

However, Fairclough (1995) viewed SFL as being relatively limited in the extent to which it could manage the dialectical aspects of language practice in which it was situated (Chouliarki & Fairclough, 1999). Hence, other than sharing some characteristics of SFL, the social theory which evolved in Foucault's work (Foucault, 1979; 1981) particularly Foucaultian ideas about power/knowledge was also used in the development of Fairclough's version of CDA. In Foucault's (1979; 1981) intellectual work on post structuralism, Foucault rejected the tenets of structuralism (that there exist binary distinctions between constructs and that we could remove ourselves from the structure of language). Foucault sought to understand history and evolution of construct which were considered natural to him. He also sought understanding on how these constructs were produced as a result of power and knowledge. Although influenced by Foucault's work, Fairclough's approach to discourse was distinguished from that of Foucault's. In Fairclough's (1995) conceptualisation of power in its different forms of oppression, domination and liberation, he did so in its linguistic form. Fairclough (1995) had therefore referred his approach of discourse as textually orientated approach to discourse analysis (TODA).

3.3.1.2 Theoretical origins of Fairclough's CDA

Fairclough (1995: 2) has developed a 'three-dimensional' analytical framework for studying language in relation to power and ideology with the aim of mapping three separate forms of analysis onto one another:

- i. Analysis of text (spoken or written) language text
- ii. Analysis of discourse practice (processes of text production, distribution & consumption)
- iii. Analysis of discursive events as social practices

Bakhtian theory of genre and intertextuality (Bakhtin, 1986) and Gramscian theory of hegemony (Forgacs, 1988) were both used in combination with this framework. The reason for their use in this framework was to ensure that the analysis of text was not isolated from the analysis of institutional and discursive practices within which the text was embedded. In harmony with Bakhtian theory of genre, Fairclough (1995) purports that texts were not only constituted from texts already produced but also from potentially diverse text types. This was because Fairclough (1995) agreed with Bakhtin (1986) that productivity and creativity of discourse practice and its realisation in texts were heterogeneous in their forms and meanings. In this regard, Fairclough (1995) concluded that text was part repetitive and part creative. Fairclough (1995) also shared Bakhtin's (1986) view about texts as sites of tension between centrifugal and centripetal forces. According to Fairclough (1995), these two forces differed in that centripetal pressures are those which followed from the need to draw upon two given conventions or socially available resources; namely a language and an order of discourse to produce text, whereas centrifugal pressures were from the specificity of particular situations of text production which were endlessly novel and problematic. With regards to text, Fairclough (1995) believes that it varies in the relative weight of these two pressures depending on the social conditions. This was explained by Fairclough (1995) based on

his beliefs in how text was constructed. First Fairclough (1995) believed that people as producers and interpreters of text were able to use socially available resources in an innovative way to generate new configurations and discourses. This was despite the fact that people could only draw upon socially available resources that constituted texts, and therefore had only conventions and order of discourse to deal with centrifugal pressures. Second, Fairclough (1995) believed that text negotiated the sociocultural contradictions to an effect that text constituted a form in which the social struggle was acted out, that he too, agreed with Bakhtin (1986) that text was part repetition and part creation.

Based on Gramscian theory of hegemony (Forgacs 1988), Fairclough (1995; 2001) explained that the creativity and productivity of discourse were constrained and controlled in power relations; the social relations of domination within a social system and their functioning within the social system. This, in turn, had control over the way a particular and relatively stabilized configuration of discourse practice that was the 'order of discourse' which constituted one domain of hegemony. When based around a combination of Gramscian theory of power as hegemony (Forgacs 1988) and Bakhtinian theory of intertextuality (Bakhtin 1986), Fairclough (1995) argued that power relations were partially discursively produced. This idea was also based on Fairclough's conceptualisation of power as asymmetries between participants in discursive events and also, as unequal capacity to control how texts were produced, distributed and consumed. Fairclough (1995) therefore saw discourse as part representations and part constructions of the world which effectively was instrumental. In essence, Fairclough (1995) saw the importance of discourse in reproducing domination.

Viewing language in its relationship to ideology, Fairclough (2001) purports that language is involved in the working of contemporary capitalist society and to him, a range of text properties was therefore potentially ideological. This included its features of vocabulary and metaphors, grammar, presuppositions, implications, politeness

conventions, speech exchange systems, generic structure and style. To Fairclough (1995) the power to control discourse and determine the shapes of text was the power to sustain a particular discursive practice with particular ideological investments in dominance over alternative practices. Therefore, insights about what was ‘in’ the text was important, but what was absent in the text (including presupposition and implicature) particularly from a sociocultural perspective was just as significant. This was important more because ideologies which could be taken as common sense were generally implicit assumptions in discourse (Fairclough, 1995; 2001). For these reasons, Fairclough (1995) had insisted on the analysis of any implicit contents. His insistence was stemming from the idea of ‘critical’ social science and analysis from

the German social theorist Jurgen Habermas who developed a communication-based version of critical theory, which saw the potential for emancipation in communication, and provided as a normative basis for the critique of ‘systematically distorted’ communication

(Fairclough, 2001: 233).

Hence, Fairclough’s approach to CDA was critical in the sense that it helped to provide valuable insights into what had been taken as given, as common sense. However, just as importantly, Fairclough’s approach included an assessment of the possibilities and strategies for strengthening and broadening the struggles against any detrimental effects of the social changes from a language perspective (Fairclough, 2001).

3.3.1.3 Fairclough’s view of discourse and text

Again, by using the combination of Bakhtian’s and Gramsci’s theories, Fairclough (1995) explained that any unstable social cultural practices existed as new domains were in the process of being ‘marketized’, and as a result, there were new combinations of genres and discourse and texts to produce complex and creative discursive practices. Fairclough (1995) also highlighted instances of calculated

interventions for shifting discursive practices as part of engineering social change. He (Fairclough, 1995) called this ‘technologization of discourse’. Fairclough (1995) argued that discourse had a major role in sociocultural reproduction and change within modern and contemporary society. He (Fairclough 1995) therefore asserted that the heterogeneities of text which emanated from intertextuality were sensitive indicators of sociocultural contradictions, and were therefore, a sensitive barometer of evolution. In this regard, Fairclough (1995) concluded that it was dangerous to assume a narrow concept of text as just a piece of written language. To him, in contemporary society, texts were increasingly multisemiotic because

text whose primarily semiotic form is language increasingly, combine language with other semiotic forms

(Fairclough, 1995: 4).

Fairclough (1995) therefore saw text as written and spoken discourse primarily, a linguistic cultural artefact with other coexisting semiotic forms in language interacting with each other in a multisemiotic text. For this reason, he argued that social and cultural phenomena were realised in the textual properties of text which were sensitive indicators of sociocultural processes, relations and change (Fairclough, 1995). He warned that sociocultural analysis could never be enriched unless it was done using textual evidence which was partly linguistic and partly intertextual. Hence in the analysis of text content and meaning, it was important that attention was paid to the content of texture (text form) (Fairclough, 1995).

In this regard, Fairclough (1995) had pleaded for a multifunctional view of text, for he believed that texts were social spaces where cognition and representation of the world and social interaction of the world simultaneously occurred. In this argument, Fairclough (1995) followed systemic linguistics (Halliday, 1978) in their assumption of the three simultaneous characteristics of language in text, whereby text was made to function at different levels as follows:

- i. ideationally in the representation of experience and the world
- ii. interpersonally in constituting social interaction between participants in discourse; and
- iii. textually in tying parts of text together into a coherent whole as a text and tying the texts to situational context.

Fairclough (1995: 6)

Further, Fairclough (1995) agreed with Foucault (1972) that the multifunctional properties of language in text can be used to operationalise the theoretical claims about the socially constitutive properties of discourse and text. Fairclough (1995) purports and concludes that the ideational functioning of language constituted systems of knowledge and belief, these of which Foucault (1972) referred to as 'objects'. Based on the view of Bakhtin (1986), Fairclough (1995) believed that with respect to ideational function, any contradictions and differences of knowledge and belief of people were dealt textually by them in language use. Fairclough also saw texts functioning at an interpersonal level, which constituted social subjects and the social relations between the categories of subjects. Again based on Bakhtin's theory of intertextuality, Fairclough (1995) purports that with respect to the interpersonal function; text negotiated social relations between people in circumstances of doubts and contestation. This was because Fairclough believed in what Billig et al. (1988) proposed about what people did when they were faced with the dilemmas when defining their identities that they would work out such dilemmas textually. Hence, for Fairclough (1995), this interpersonal aspect of text might be ideologically invested. Based on Fairclough's (1995) view in which he considered the interplay between cognition and interaction a crucial feature of textual practice, Fairclough (1995) had proposed for any part of texts to be examined for co-presence and interaction of these constitutive processes.

Fairclough (1995; 2001) further emphasized that textual analysis should be more than with respect to functions of text, but also with respect to its levels of analysis. Fairclough (1995) claimed that it was important to analyse text at all levels because any

level at which texts were organised were relevant to critical and ideological analysis (Fairclough, 1995). He, therefore, insisted for discourse analysis to include an analysis of the sociocultural practice within the text and recommended that it focused on how texts worked within the sociocultural practice, such that it gave attention to analysis of textual form, structure, and textual organisation at all levels; phonological, grammatical, lexical (vocabulary) and higher levels of textual organisation in terms of exchange systems (the distribution of speaking turns), structures or argumentation and generic (activity type) structures.

In addition to the view of language use as a form of social practice, Fairclough (1995; 2001) also saw social order of discourse as the historical impress of sociocultural practice. For him, any discursive event necessarily positioned itself in relation to this historical legacy, selectively reproducing or transforming it. Hence, a discursive event was part of a sociocultural practice, which was realised in how the discursive event drew upon and worked upon the order of discourse. This order of discourse was in turn realised in the features of texts so that the text-sociocultural practice link is mediated by discourse practice.

Therefore to Fairclough (1995; 2001), it was important to include social categories in the analysis even if they had not been manifestly orientated to the participants, and consequential for the way in which the text was structured or organised. He continued to argue that this was necessary because social categories might be relevant to the field of practices within which the text was located, and might have been of key importance in the analysis of social structure. Fairclough (1995; 2001) therefore, insisted on the inclusion of discourse practice dimension and intertextuality in his approach to CDA, so that the wider processes of socio-cultural change could be revealed.

3.3.1.4 Fairclough's view of CDA

So far, Fairclough had claimed that his approach to CDA was interdisciplinary, but in his perspective, this was not adequate enough for it to be an effective analytic approach as much as it would otherwise be. He therefore had pleaded for a transdisciplinary approach (Fairclough 1995; 2001). In his view, a transdisciplinary approach would be fruitful for the approach required an open dialogue between disciplines concerning linguistic and semiotic analysis and those concerned with theorizing and researching social process and change. Basically, Fairclough's (2001) advocacy for a transdisciplinary approach was based on his belief that the open dialogue between disciplines would be committed to producing new theories and new methods of analysis to cut across existing disciplines (Chouliaraki & Fairclough, 1999; Fairclough, 2001).

Additionally, Fairclough (2001) also believed that the only way for CDA to achieve its objectives in addressing the larger changes in the way language and semiosis figured in social life, was when the analysis went beyond text. Fairclough (2001; 2003), had therefore, developed a 4 stage analytical framework for CDA (Table 3.1 on page 97), for which the analysis could be framed. The analytical framework was modelled upon the concept of explanatory critique by a critical theorist, Roy Bhaskar (1986). Notwithstanding the use of Bhaskar's (1986) concept, clearly the framework was based on Fairclough's critical social view of discourse as an element of social practices dialectically linked to other social elements. For this reason, despite the fact that the analysis is organised into a series of steps, as warned by Fairclough (2001), the process of analysis may not and should not follow the series of sequential steps as they are presented in the framework. The next section explained in detail the application of this framework in this study.

Table 3.1 Analytical framework for CDA (Adapted from Fairclough, 2001: 236)

Stages	The analysis
1	A focus on a particular social problem or issue in its semiotic aspect
2	Identification of possible obstacles to the problem being solved (its network of practices, non discourse elements, orders of discourse); achieved through analysis of a. the network of practices it is located within b. the relationship of semiosis to other elements within particular practice(s) concerned c. the discourse i. structural analysis: order of discourse ii. interactional analysis iii. interdiscursive analysis iv. linguistic and semiotic analysis
3	Identification of the possible function of the problem situation in the network of social practices/social order
4	Identification of possible ways past the obstacles

3.3.2 CDA: its relevance to the present study

Critical discourse analysis (CDA) as a methodology, which was largely developed through the work of Fairclough (1989; 1992) was also a sociolinguistic research tool to simultaneously analyse the texts and social structures and practices underlying the texts. The use of CDA was to facilitate social analyses which were grounded in texts and at the same time, it was to facilitate linguistic analyses which addressed critical social issues. This was possible with its focus of analysis at micro level and macro level of texts via an intermediate level; that of social practices and structures, in terms of genres, discourses and styles accessed.

Ontologically, CDA was consistent with critical realism in that it allowed for the objective existence of structures (Chouliaraki & Fairclough, 1999). Critical discourse analysis highlights a modest and yet non-relativistic understanding of scientific truth as epistemic gain, but this was only through the dialogic process in the public sphere

(ibid). In Fairclough's view, CDA was necessarily hermeneutic but also dialogical, incorporating linguistic and social logical analyses in dialogue with each other. These aspects of SFL which CDA shared in its approach to language, allow the use of CDA to make visible through the less explicit facets of discourse in computer conferencing.

As discussed in earlier sections, other than the theoretical influences from Halliday (1978) and Bahktin (1986), Foucault's (1972) concept of power and knowledge and Habermas' (1973) critical social theory were also used by Fairclough in his development of CDA. Thus, the use of CDA could not only help to reveal discursive sources of power, dominance, inequality, and bias but it could also help to demonstrate how these sources were initiated, maintained, reproduced and transformed within specific social, economic, political, and historical contexts (Fairclough, 1995; Van Dijk, 1993). Crucially, stemming from Habermas' (1973) critical theory, CDA aimed to help critical discourse analysts understand social problems mediated from mainstream ideology and power relationships, and to recognise how these were perpetuated by written texts in everyday occurrences via our daily and professional lives. In this regard, the use of CDA was able to critique texts in terms of the ideologies it promoted. Given the power of text, CDA as an analytical tool was not only useful, but was in fact, necessary in this study for describing, interpreting, analysing and critiquing the social life from the typewritten texts being generated by the students in their interprofessional online learning.

Based on the epistemological perspective of CDA, the individual agent and social factors were considered to be operating in the production of language during a particular event, within a particular type of practice. This dual recognition of social and psychological influences in human activities in CDA is useful as a resource for those trying to cope with the alienating and disabling effects of changes imposed upon them (Fairclough, 1995). This was particularly so for discourse in communities, schools, the

media and the political arena, whereby CDA was indeed used to focus on how social relations, identities, knowledge and power were constructed through written and spoken texts with just one aim, that was to challenge oppression, repression and marginalisation (Luke, 1997).

However, unlike other research projects based on CDA, the aim of this study may not necessarily be identical with the original aim of CDA. Instead of supporting victims of oppression and encourage them to resist and transform their lives (Foucault, 2000), CDA was used in this study to illuminate the ways in which dominant forces in a society construct versions of reality which favoured the interest of a few. The analysis was aimed at revealing any power relations and dominance implicit in the nursing language, both of which might have used in the conference. Whilst this study was concerned with inequalities and power, the use of CDA was to unmask the discursive practices in order to gain a better understanding of the experience of nurses and the allied healthcare professionals (AHPs) in their online learning via asynchronous computer conferencing (ACMC) based on a wide social cultural context.

In essence, CDA was used in this study for identifying any discourse practices that might have prevented all but a few healthcare students (particularly those who had a nursing background) from having a sense of legitimate belonging to an interprofessional learning (IPL) community. This was because the use of CDA could help to identify how the features of 'talk' conducted online impacted upon relationships, responses and identities to facilitate or impede IPL. In addition, its use could also help to illuminate the way practices within ACMC might encourage hybridisation of discourse, and how the latter could result in learning becoming accessible to all, or just a selected few. However to achieve these, the analysis needs to be framed using the analytical framework of CDA. Table 3.2 on the next page illustrates the analytical framework with reference to the analysis that was done.

Table 3.2 Application of CDA analytical framework (Adapted from Fairclough, 2001)

Stages of the framework for CDA	Relating to healthcare professionals
1. A focus on a particular social problem or issue in its semiotic aspect	Barriers to equitable access to health education via ACMC due to culture and language norms of nurses
2. Identification of possible obstacles to the problem being solved (its network of practices, non discourse elements, orders of discourse); achieved through analysis of: a. the network of practices it is located within b. the relationship of semiosis to other elements within particular practice(s) concerned c. the discourse	1. Discourses of health and social care and health education favour nurses 2. Nurses belief about using distinctive language (in healthcare practice) 3. Wider culture of society (particularly in healthcare discipline) and its artefacts
3. Identification of the possible function of the problem situation in the network of social practices/social order	1. Maintenance of ideology of economic rationalism, including culture of expertise 2. Selection of nursing students for qualifying as registered nurses Preservation of high status of nursing
4. Identification of possible ways past the obstacles	Hybridisation of the discourse of nursing to make healthcare education accessible to non-nursing students

As mentioned earlier, the processes of analysis in the framework were dialectically interrelated, and it was not necessarily conducted in the series of steps as set out in the framework. Nevertheless, Fairclough (2001; 2003) recommended stage 1 of the analysis as a starting point for CDA. This was where Fairclough's (2001) highlighted the importance of a description of an appropriate research problem for CDA; a social problem manifested in either its linguistic or semiotic aspect. In other words, the starting point of CDA was social issues and problems. To apply stage 1 of the analytic framework, this study focused on the assumption that equitable access to IPL with nurses could be achieved via ACMC. This was considered a social problem

manifested in both its linguistic and semiotic aspect, given the fact that there were unresolved power relations in nursing (Baumann et al., 2001; O'Connell et al., 2000; Shields & Wilkins, 2006) and some of which are even implicit in nurses' language (Hamilton & Manias, 2006; St-Pierre & Holmes, 2008; Hyde et al., 2006), Hence, in a learning situation where there was a lack of verbal cues, there was a possibility that collaborative learning which was aimed to be achieved in an asynchronous text-based learning mode might be adversely affected by the power relations implicit in the culture and language norms of nurses.

Stage 2 of the CDA framework comprised the main analysis. Nevertheless, it began with an analysis of the conjuncture, the sociocultural practices surrounding the event from which the text was taken (Fairclough, 2001). This was necessary, in order

to give a broad sense of the overall frame of social practice which
the discourse in focus is located within

(Chouliaraki & Fairclough, 1999: 61).

This stage therefore began with the analysis of the relationship between the discourse and other aspects of social practice. Through this analysis, the role a problematic situation played in current structures, which helped to maintain the status quo, and the obstacles to be tackled to solve the problem would be explicated. In the case of this study, this was done in the earlier discussion in section 1 in this chapter, where some pertinent discourse issues in nursing and its relationship with others in practice and learning were explored. It was through this exploration, that the reasons for nurses maintaining the unique language in nursing and the ways they have done it were exposed. The exploration in turn revealed a plausible reason for the problematic situation in which the use of nursing standardised language was likely to be persistent in nursing practice, that it was likely to become a potential obstacle to effective interprofessional online learning (IPOL).

The above analysis was then continued with the final analysis in this stage. This stage was what Fairclough (2001) called the interactional analysis. This being the central part of CDA involved taking a sample of the discourse as it was found in a particular event. The sample was then used as data and analysed using textual analysis and intertextual analysis (Fairclough, 2001). This stage was the current study in which a sample of discourse was taken from an IPL in APMC which were the texts that comprised the language used by healthcare students in their contribution to the forum.

Before continuing with the discussion of the application of the CDA framework and moving onto the application of stage 3 of the analysis, it was important to revisit the three central tenets of CDA; discourse, social structure and culture. Fairclough (2001) purports that discourse was shaped and constrained by social structure and culture, whilst discourse on the other hand, helped shape and constrain our identities, social relationships, our knowledge and our belief systems. All of these were in turn, shaped and constrained by the language and words espoused by individuals. Since healthcare students using APMC comprised of members from across the social structure (but mainly middle working class men and women who were nurses, midwives and AHPs), who had a professional culture (more specifically the healthcare culture) to shape and constrain its discourse. Presumably, what these healthcare students 'say' in the form of contribution to APMC, was shaped and constrained by their professional culture, socialisation, and member profile (social order).

However, whilst it was important to appreciate that the healthcare students' discursive conduct was determined by the social practice in a larger context outside the text-based learning environment, it was also important to ask ourselves, whether the social order needed the type of interactions between the nurses and the AHPs. This question was specifically important to be raised if the discourse or discursive practices in the text-based learning environment was demonstrated to have potentially limited the

capacity of the dominated to meet the learning needs of a few who were more able to set their own learning agendas.

By keeping this query in mind whilst engaging in the third stage of the analytic framework, consideration would inevitably be given to an acknowledgement of whether a certain form of interaction was to serve some wider social interest. As pointed out by Fairclough (2001), stage 3 of the analytic framework will point the analyst in the direction to ask if such interaction was to sustain authority of the elites or the experts and the rest of the society. In the case of this study, the focus of the analysis would be cast on the need for maintaining the power relations between nurses and the AHPs, which facilitated the strategies of domination. It was by engaging in the analysis in stage 3, the question of ideology would be raised (Fairclough, 2001).

The whole process of CDA as represented in Table 3.1 on page 97 included an interpretation of where there were gaps or sites of potential ambiguity or contradiction. According to Fairclough (2003), this was what stage 4 of the analytic framework would help to do. By engaging in stage 4 analysis, it would help to reveal the possibilities of a range of alternative practices which offered

unrealised possibilities for change in the way that social life was
currently organised

(Fairclough, 2001: 236).

This makes stage 4 analysis rather difficult (Fairclough, 2001). Nevertheless, stage 4 was not done separately. It should be done through the interactional analysis in stage 2c (Fairclough, 2001). In order to understand how stage 4 analysis is conducted in conjunction with stage 2 analysis, one needs to appreciate the specific features of CDA and its use. The discussion below is aimed to provide some explanation on how the specific features were deployed for use in the current study.

Critical discourse analysis (CDA) deals with text at all micro, intermediate and macro levels with text being interpreted broadly to include almost any social situation or product that can be analysed. CDA could thus be used to unite, and determine the relationship between three levels of analysis: (a) the actual text; (b) the discursive practices (the process involved in creating, writing, speaking, reading and hearing) and (c) the larger social context that bore upon the text and discursive practices (Fairclough, 1995; 2001).

First, text in the context of CDA in relation to the current study; although texts could include language, visual images and body language (Fairclough, 1995; Fairclough, 2001), text in this study was a product of discussions generated in an APMC for IPL. All discussions involved the presentation of facts and beliefs, the construction of individuals' identities, and the use of different types of strategies to frame the contents of the messages which were recorded permanently in the form of students' typewritten messages posted to the discussion forum during interprofessional online learning. These formed the texts for analysis.

For discursive practices in CDA these are referred to the rules, norms, and mental modes of socially acceptable behaviour in the specific roles of individual participants of discourse and the relationships amongst them being used to produce, receive and interpret the messages. In other words, discursive practices involved ways of being in the world which signified specific and recognisable social identities (Gee, 1990). In this study, they were the spoken and unspoken rules and conventions of how each student as qualified nurses and allied healthcare professionals learnt to think, act and speak in the social position they occupied in life (within the healthcare discipline).

Lastly, the social context, this last element comprised distinct settings where the discourse occurred, and each was with a set of conventions that determined the rights and obligations of the participants. Hence what each healthcare student was expected

and allowed to do whilst participating in the online learning was determined by the social context of learning via ACMC within a higher educational institution, and in the presence of a 'teacher', as the e-moderator.

Based on the theory of CDA, this study assumed that whatever took place in the discussion forum that were recorded in the form of text, occurred within a larger social context replete with a complex set of power relations. The texts were therefore records of the social events, which were interpreted and acted upon by the online conference participants according to the rules and norms, and mental modes of socially acceptable behaviour of any HCPs as post-qualifying students in higher learning. In other words, the texts produced were more than just words on the page, but a rich source for disclosure of how those words were used in a particular social context (Huckin, 1997).

The use of CDA for data analysis was to seek links between the text (micro level) and the underlying power structures in society (Macro sociocultural practice level) through discursive practices upon which the text (meso level) was drawn (Thompson, 2002). Nevertheless, the patterns found within the elements of language as a conventional linguistic system was considered for their significance within the text. For this reason, the aim of using CDA in the current study was not to generalise any language use, but to understand and make explicit the social implications which follow from the way the language had been used in the context of interprofessional online learning.

Having explained the relevance of CDA as an analytic tool, still, there might be concerns with regards to the nature of discourse data in this study. The data was not a result of the conventional form of communication (speaking and writing) which were more common forms of communication amongst the nurses and AHPs. However, other than in the context of education, in most people's daily life in general, there has been increasing use of asynchronous mode for communication. For convenience and low

costs, many people in the present day, from young to old have begun to resort to the use of emails for communication (Harasim, 2006; Yates, 2001). In this regard, asynchronous mode for communication was likely to replace conventional mode of communication, in any social contexts included that of healthcare.

In addition, it had been demonstrated that communications mediated by computers asynchronously reflected properties, which were similar to spoken language created in a face-to-face dimension (Fernback, 2003; Yates, 2001). While Yates (2001) found that the range of vocabulary used in oral conversation and asynchronous computer mediated conferencing (ACMC) were similar, Fernback (2003) found that despite the different presentation of ACMC in print form, ACMC was a site of oral culture. Other than delays, interactions between participants within ACMC resembled conventional talk. Hence even in situation when discussion in ACMC did not follow the 'next turn proof procedure' (Hutchby & Wooffitt, 1998) as in synchronous verbal communication, the messages could still be used to examine for the possible functions they might have or they might have helped to serve in the online interaction.

Moreover, in discourse analytic work, particularly in CDA, discourse was beyond language use and included all other forms of human meaning-making activities; texts as well as any types of semiotic materials (Fairclough, 2001; Wetherall, 2001). For Fairclough (2001), although there was temporal and spatial distance between the participants, written texts were produced with a particular readership in mind, and were therefore orientated to particular sorts of reception and responses. Fairclough (2001) in fact supported Bakhtin's (1986) view that written texts were no less interactive than conversation which occurred in a face-to-face dimension. Messages generated in ACMC served the same purpose as written text; they were produced for asynchronous distribution and consumption. Despite messages were typewritten using computers, they were texts suitable for CDA.

3.4 Methods

3.4.1 Background to the present study: 100% online module using ACMC

The central part of the CDA framework which is the analytic stage is the current study. The data for analysis were taken from a sample of the discourse as found from interprofessional online learning (IPOL) module in a higher educational institution (HEI) in England. The module was entitled 'Teaching and evaluating e-learning in health and social care'. It was a 20 credit post-qualifying health professional module at master degree level delivered in the academic year 2004-2005. It was participated by 13 HCPs, as either a standalone module or as an elective module towards a Master of Science Degree in Health Professional Studies or Leadership in Health and Social Care.

This module was structured according to Salmon's 5 staged-'scaffolding' model for e-learning (Salmon, 2003) to teach post qualified healthcare students the principles of teaching and evaluating e-learning in health and social care studies. It was based on Salmon's (2003) model to guide students in the use of the technology for communication and learning quickly but progressively through the five stages offered in this 'scaffolding' model. The learning was spread across a 12-week study block, and students were guided by the discussion topics to learn and experience e-learning through the 5 stages of Salmon's e-learning model namely, 'Access and motivation', 'Socialisation', 'Information Exchange', 'Knowledge construction' and 'Development'.

The mode of delivering the module was a 100% method of using a virtual learning environment (VLE) offered in 'Blackboard6' (*Bb*). Therefore, students who registered to participate in this online module were required to have computer and internet access which allowed them to log on to the university licensed site of *Bb*. 'Blackboard6' is a software tool which supports asynchronous and synchronous computer conferencing, emailing, and posting of uniform resource locator (URL) and announcements. However, other than using the software tool to support asynchronous

discussion, and posting of URL, the rest of the software tools were not required for participation in the module and were not used by the students (Table 3.3 explains how the main components of the VLE were used). Messages posted to the forum for asynchronous discussions were moderated by the e-moderator and were recorded permanently. The tracking of the number of times any posted messages that had been read or re-read by others was not possible by the students.

Table 3.3 Main components of the VLE

Components	Nature	Description
Compulsory Discussion forum (CF)	<ul style="list-style-type: none"> • Public • open to peers & e-moderator • e-moderator can track number of viewings 	<ul style="list-style-type: none"> • E-moderator posed one discussion thread at the start of each week • Students were expected to participate at least once a week
Non-Compulsory Discussion forum (NCF)	<ul style="list-style-type: none"> • Public • open to peers & e-moderator • e-moderator can track number of viewings 	<ul style="list-style-type: none"> • All discussion threads were posed by e-moderator right at the start and had remained since • Students volunteered information; Discussion is not compulsory
Notice board	<ul style="list-style-type: none"> • Public • open to peers & e-moderator 	<ul style="list-style-type: none"> • Only e-moderator could pose announcements
Web pages	<ul style="list-style-type: none"> • Public • open to peers & e-moderator 	<ul style="list-style-type: none"> • Students and e-moderator can upload files and web links for sharing •
Mail Room	<ul style="list-style-type: none"> • open to peers & e-moderator 	<ul style="list-style-type: none"> • Students and e-moderator could email each other

The underpinning philosophy of the module was Vygotsky's social constructivist approach to learning theory (Vygotsky, 1978). The students were expected to be active and self-directed in constructing knowledge via interactions with peers based upon the weekly topic initiated by the e-moderator through the provision of reading materials and related websites posted by the e-moderator. The aim of this module was to encourage metacognition learning (Derry & Murphy, 1986). Hence, besides being expected to engage in student-centred learning, students were also expected to have awareness of their own learning processes and be in a position to control and manage their learning processes (ibid). In other words, students were expected to be able to do self-paced learning from the course materials and from other sources which were supplied and posted in *Bb* by the students and the e-moderator to support student discussion in the forum.

Although students were expected to participate actively in the forum, students' discussions in the forum were neither assessed nor graded. Instead, a 1500 to 2000 word report reflecting students' online behaviours in their contribution which facilitated learning for self and peers accounted for 40% of students' final grades. At the start of the module, all students were made aware that the online discussions in this compulsory forum indirectly accounted for 40% of the summative assessment grade awarded. Thus students were informed right from the beginning of the module of the importance of their active participation in the discussion forum, that they were expected to at least participate once in every weekly discussion in the CF.

At the same time, there was also a non-compulsory forum (NCF), created within the same site of the VLE where students were not required but encouraged to contribute. This forum comprised topic areas which were already there at the start of the module. The aim of this forum was to allow learning in a VLE to resemble learning in a traditional classroom to reduce the feeling of isolation from the asynchronous nature of

learning. In this module, there were possibilities for students to share their opinions, feelings and experience with each other and the e-moderator for support. The aim of providing support and reducing the feeling of isolation was reflected in the titles given to the topic areas – ‘Introducing yourselves’, ‘Learning experiences’, ‘Ground rules’, ‘M’s cyber office (e-moderator’s office)’, ‘Technical tips’, ‘Reflections so far’ and ‘Coffee bar’. This forum offered students the opportunity to ask and answer open-ended questions and enabled asynchronous discussion by the students spontaneously. Thus, the NCF was participant centred, that it was in line with a focus group discussion (Puchta & Potter, 2002). Table 3.4 shows the contents as determined by the topics in question of the two discussion forums in this module.

Table 3.4 Discussion threads designed by e-moderator in ‘compulsory forum’ and ‘non-compulsory’ forum

CF- Topic areas in each week	NCF -Topic areas over the 12 weeks
Topic 1: ‘What is e-learning’ wk 1	‘Introducing yourselves’
Topic 2: ‘The Role of the e-moderator’ wk 2	‘Learning Experiences’
Topic 3: ‘A future of elearning in the NHS’ wk 3	
Topic 4: ‘Resourcing elearning’ Topic 4	‘Ground rules’
Topic 5: ‘E-learning as an emerging pedagogy’ wk 5	
Topic 6: ‘Student led activities’ wk 6	
Topic 7: ‘Communities of Practice’ wk7	‘cyber office (e-moderator’s office)’
Topic 8: ‘Blended learning’ wk 8	
Topic 9: ‘Assessment in online learning’ wk 9	‘Technical tips’
Topic 10: ‘Facilitating and managing the change to wk 10 e-learning in health and social care’	‘Reflections so far’
Topic 11: ‘Case Studies’ wk11	
Topic 12: 1) ‘Evaluating virtual learning environment’ wk 12 2) ‘Evaluating e-learning’	‘Coffee bar’

One week prior to the commencement of the module, a face-to-face meeting was held between the e-moderator and the student cohort to introduce the module and to acquaint students with the technology. Students were given a full day opportunity to have hands-on experience with the various software tools in *Bb* particularly, those specifically required for asynchronous online discussion. This face-to-face session was attended by five students who had created 40 messages in week one discussion in ‘introducing yourself’. Students who were unable to attend the session were required to seek individual tutorials from the e-moderator to familiarise themselves with the software tools in *Bb*. Other than the first 40 messages in the topic area ‘Introducing yourselves’, all messages in the VLE were a result of the asynchronous online communication.

3.4.2 Participants of the online module

The thirteen students were from different professional backgrounds in healthcare [one state registered occupational therapist (SROT), one health promotion specialist, one operating department practitioner (ODP), one community nurse (registered nurse, RN), one modern matron (RN), one midwife (RN) and seven healthcare educators (1 ODP ; 6 RNs)] (Table 3.5 on page 113). This spread of different healthcare professions is common place in the healthcare population and in the healthcare post qualifying level of education where the majority of those participating in IPL have a nursing background. Other than one nurse who received her basic nurse training in Australia, all other nurses had received their basic nurse training in England. Nine students (8 nurses; 1 AHP) were undertaking the module as an elective module for partial fulfilment in obtaining a Master Degree in Science (MSc) for Health Professional Studies or Leadership in Health and Social Care, while the four (1 nurse;

3AHPs) were undertaking the online module for continuing professional development (CPD).

Eleven of the students were involved in the delivering of healthcare education. (HEI: 4; clinical practice: 7). All thirteen students had some prior experiences with Microsoft applications whereas only three of students had some experience with computer conferencing; one had experienced ACMC for higher learning, whilst the other two had experienced synchronous computer conferencing from informal online chats.

I formed part of this student population. (The reason for me being part of the student population is explained in the next section 3.3). My contributions to the discussion forum were made in the capacity of a student, engaged in IPL in an authentic learning environment. It is important to note as at the time, this study was not planned until 10 months post completion of the module. Thus, the issues of power differences between research participants and the researchers and researchers' influences in the production of discourse data generated either in interviews or in focus group discussion co-participated by researchers (Wetherell, 2001) were not problematic issues in this study. However, this did not dismiss the fact that there were possibilities for issues in power relations to emerge from the analysis and interpretations of the discourse data. Therefore, other than producing a detailed account of my ontological and epistemological position in nursing discourse in section 1 at the beginning of this chapter, strategies were developed to address the contentious issues arising from my 'insider' position in the analysis. The strategies to account for my reflexivity in the analysis are discussed in the next section.

Table 3.5 Summary of the student participants

Title	Place/nature of work	Reason for enrolling on the module	IT skills & Knowledge	Experience with ACMC
Student 1 Occupational Therapist	Administration, strategic planning	For continuous professional development (CPD)	Word processing, Emailing	Nil
Student 2 Health Promotion Specialist	Public Health/ Provided sex education to youths in community	To achieve MSc award	Word processing, Emailing	Fair amount from informal chats
Student 3 Operating Department Practitioner (ODP)	Secondary care/ taught ODP students	For CDP	Word processing, Emailing	Completed a 100% online course at master level using ACMC
Student 4 Lecturer (ODP)	University/ taught ODP students	To achieve MSc award	Word processing, Power point presentation (ppt), Emailing	Nil
Student 5 RN/Midwife	Secondary care/ taught & mentored student midwives	To achieve MSc award	Word processing, Emailing	Nil
Student 6 Practice Nurse (Registered Nurse - RN)	Primary care/ taught and mentored healthcare assistants (HCA), junior nurses & student nurses	To achieve MSc award	Word processing, Emailing	Nil
Student 7/8 Health Visitors (RNs)	Primary care/ taught and mentored HCA & student nurses	1 to achieve MSc award 1 for CPD	Word processing, Emailing	Nil
Student 9 Matron (RN)	Secondary care/ Strategic planning at management level	To achieve MSc award	Word processing, Emailing	Nil
Student 10 Practice Educator (RN)	Secondary care/ taught & mentored student nurses & HCA	To achieve MSc award	Word processing, Emailing	Nil
Student 11 Lecturer (RN) The researcher	University taught student nurses & qualified nurses	To achieve MSc award	Word processing, ppt, Emailing	Large amount from informal chats
Student 12/13 Lecturers (RNs)	University taught student nurses & qualified nurses	1 to achieve MSc award 1 for CPD	Word processing, Emailing	Nil

Non-nursing students:

Nursing students:

3.4.3 Reasons for choice of data source

This module was selected for this study because like other online healthcare modules, it was delivered to take advantage of the computer software, *Bb* for its flexibility in IPL and to promote the culture of e-learning in higher education. Other than the purpose of its existence, another reason for it being selected for this study was because, this module was a typical post-qualifying healthcare module that it involved professionals from various healthcare disciplines as learners and a nurse lecturer as the e-moderator for interprofessional online learning (IPOL). In addition, this module was typical with regard to its student population. Nurses were in the majority, with only a few AHPs from the various disciplines. By using a typical healthcare module of IPL, the study allowed the findings from its analysis to become meaningful; in that it allowed readers to judge for themselves the extent of applicability of the findings in a wider context which was beyond the scope of this study to other similar IPL situations. In other words transferability of this study can be made possible. However this claim was not put forward to suggest that the linguistic and discursive features in the order of discourse identified in the context of this study would likely to recur in other contexts. Nonetheless, one cannot disregard the fact that they might be significant and persistent, to an extent in which their ramifications could be widespread (Taylor, 2001). In this regard, the findings from this typical module were potentially useful information for other interprofessional online learning (IPOL) situations.

Another reason for selecting this module was partly, the overall aim of this study. This study was not aimed to find fault, rather it was to seek an exemplar of a successful online module for IPL in the faculty. I was interested to investigate and identify positive educational instances. Thus, I had directed my focus to search for an online healthcare module in which the discursive practices of healthcare students were considered to have potentially opened up an avenue for learning. This had led me to

direct my search for an online module which had active student participation, as indicated by its intense students' contributions. Although I might be stating the obvious, but it was still important for me to point out, that discourse analysis of interactive data could never take place if there were complete absence of student participation. Similarly it would not be fruitful to analyse any discursive practices of students in a module which had low student participation. I had therefore looked into the faculty's *Bb* site to seek a module which had active student participation. The intended search resulted in the selection of a module in which I had participated as one of the students. Indeed, due to the high level of student participation in this module, since its completion, this module was not archived like the rest of the online modules in the faculty. It was left in the virtual site and used as an exemplar to show others (healthcare lecturers and potential online learners) how an online module which involved HCPs from different disciplines could be achieved for learning. Access to this module had only been denied to all users in September 2009 when the faculty switched its use of *Bb* to another virtual learning platform, 'e-bridge'. It was obvious that this online module had been used as a self illustrating example to persuade others to take up online teaching and learning, and would have continued to be used as an exemplar if 'e-bridge' had not been introduced.

From a practical point of view, the huge amount of discourse data generated in the module which was easily accessible would allow meaningful selection of data for analysis. From the methodological point of view, the choice of the module also benefited the study. As acknowledged by Fairclough (1995), it was important for one to engage in social and ethnographic research over a significant period of time, before any textual analysis in social research can be framed adequately. I certainly had not been engaging in any ethnographic research in IPOL even though Fairclough (1995) considers it an important ingredient for the success of this study which involved textual analysis of discourse using CDA. However, the discourse data for CDA was generated

in the module of which I participated as a student. Despite the fact that I had not engaged in any ethnographic research in this area, the mediation of links between text and context in this study was not in any way carried out in the absence of my knowledge, experience and sensitivity of the relevant orders of the discourse. In that sense, the problem of my lacking of an 'emic' perspective of the context was significantly reduced.

By claiming knowledge based on my 'insider' position, it is not my intention to claim full knowledge of the local context. Conversely, I am demonstrably conscious of the inevitable differences between the participants and myself, all of which were just as important as the similarities we may share. Thus, the important role of an 'insider' with an 'emic' perspective cannot be exonerated in the production of my knowledge of the student experiences. This consciousness of my 'insider' status has certainly led me to consider its important pitfall associated with the nature of this study in that it involved implicit power relations. In this regard, by claiming an 'insider' status could easily obscure the power differentials between the participants and myself as the researcher, particularly so when I am also a registered nurse. In other words, my 'insider' status which benefited this study could simultaneously put me at risk for negative criticism as it could be argued that I am basing the interpretation of the findings solely on self epistemological and ontological values. However even if I am not negatively criticised, I cannot ignore my own concerns that I might have been claiming authenticity in the interpreting of the data and approaching a truth claim.

To address the potential pitfalls of my 'insider' position, I highlighted the fact that the data of this study was highly interactive. The analysis in this study had therefore involved text production as well as text distribution and consumption. The analyses of student responses were performed and checked against my interpretations of students' initial contributions which elicited the responses. Thus, the analysis of interactive data

had allowed my interpretations to be constantly validated in the process of analysis, which was also based on the endogenous interpretations of the participants. By doing so, my interpretations were not limited to only knowledge, experience and sensitivity of the relevant social context of an 'insider', but were extended to include those of the participants.

Having suggested this, it is important to be reminded that I as a researcher was part of the data set. Albeit the fact that the analysis in this study did not follow the traditional form of critical discourse analytic work, in that the interactive discourse data were used for analysis, and the emphasis was an emic nature of analysis, my role as an analyst in this critical discourse work was similarly complex. The complexity was further compounded by the fact that, under no circumstance should social life be reduced to language (Fairclough, 2003). In this view, student interprofessional online learning might not attribute solely to the conference discourse. After all, even if student interprofessional learning was indeed affected by the language use in the conference, any single description of language would not have been able to cover all aspects of online behaviour (including low participation and no participation). To address the limitation of me being part of the data set, I had therefore dedicated the whole of chapter 5 in this thesis to make explicit the analytic procedure. This is done in the hope that this chapter could act as a device to acknowledge the reflexivity of this study that was based on my epistemological and ontological knowledge of the nursing language. On top of this, the discussion chapter had also included several messages that were contributed by me as a student in an authentic learning environment. Other than to address the ethical issues (which I will be discussing in greater depth in the next section), such measures were adopted more for constantly reminding readers about my presence as an interpreter of the discourse data which I had been responsible for producing.

3.4.4 Ethical considerations

Ownership of communicative output is one of the issues that is continually evolving as the use and nature of ACMC changes. To date, in the United Kingdom, there is no law governing the use of transcripts produced in a computer conference, it is generally agreed that anyone who has posted their messages to any online conferences has their opinions and views cast into the public domain. Nevertheless, failure to observe the principles set by the Data Protection Act 1998 (Data Protection Act, 1998) for recording, storage and processing of information that relates to identifiable individuals may result in criminal charges and civil actions for compensation. Besides, quoting from computer conference does raise the vexed question of privacy and ownership of messages. This is especially so, when communication using ACMC is very likely to be across national boundaries, where each country was likely to have own peculiarities of copyright and legislation (Krol, 1993).

Although this study may not have issues arising from the complexity as a result of crossing national boundaries, one should still be cautious to ensure that no one is harmed throughout the research process or as a result of the research. Hence, prior to commencement of the study, that was 14 months post completion of the module, permission from the ethical committee of the faculty was sought and obtained. This was then followed by letters sent to all participants and the e-moderator to explain the purpose of the study and to seek their informed consents.

The obtaining of informed consents from participants was treated as not only the most important initial step but also, as a maintenance issue as consent was renegotiated in subsequent stages of the research (Mason, 1996). This was because it was likely for those who had agreed to the study to have not anticipated the impact of the results of the study on themselves when their experiences were published. For the same reason, all participants were also informed that they were free to withdraw from the study at any

time. This was especially important, when participants' identities might still be identifiable to others, although they were kept confidential and anonymous in this study.

Hence despite the fact that this study was conducted for academic purpose and educational practice enhancement, it was appreciated that obtaining informed consents for analysis of the messages was not adequate. In the analysis, messages which were collected and messages which were interpreted in a way that could be linked to an individual, subject numbers were assigned anonymously so that all participants were not identified by name or by any other identifying information in reports and presentations. Anonymity was guaranteed through the use of pseudonyms. When individual messages or pieces of reflections were used as illustrative examples, this was done in a way that it did not allow identification of the participant. Care was taken not only to protect the participants' names, but also to protect other details about them or their experience that would allow them to be identified. Hence any sensitive contextual information that could have identified the learners was removed. If it was important for the research to identify an individual who participated, or if the participants, themselves wished to have their contribution attributed to them, specific written permission was sought from individual participants. In the entire research process, efforts were made to preserve confidentiality by making sure that the discourse data and all research materials were stored securely, so that I was the only person who had access to them.

3.4.5 Data collection and data selection

The data for analysis was taken from the *Bb* site from a health faculty in a northern university in England. Since the data were in the form of typewritten texts from ACMC, they did not require any transcription, and were printed out from the two forums of one VLE; the ‘compulsory’ and ‘non-compulsory’ sites. However, not all downloaded materials were regarded as data. As highlighted by Taylor (2001), what counted as data was through a selection process which was based on the researcher’s theoretical assumption. In this study, selection of data was based on the concept of Salmon’s model of 5 key stages of e-learning (Salmon, 2003). This model suggested that students would not have communicated freely to learn, unless they have reached at least the stage of socialisation at which they were comfortable with the technology.

From the ‘compulsory’ forum (CF), the stage of socialisation was identified as from the second week post commencement of the module. This stage was reflected in the title of the topic of discussion which required more extensive discussion than the topic in week one. Nevertheless it was students’ high level of participation from this week, which suggested that students’ contributions to the forum were no longer influenced by their lack of familiarisation and discomfort in the use of the technology, that students had probably entered the stage of socialisation. Hence, it was reasonable to assume that the messages from the second week onwards resembled exchanges in any ‘naturally occurring’ conversational situation and therefore could be taken as discourse data for analysis. Therefore, all messages contributed to this part of the forum from week two onwards were included as data for analysis. The selection from the CF resulted in 617 asynchronous online messages as the first set of data for analysis. Table 3.6 on page 121 provides the details on the type of messages from the CF being selected for analysis.

Table 3.6 Messages selected from compulsory forum (CF) as data for analysis

Topics	No. of messages		
	students	e-moderator	Total
Wk 1 Topic: What is e-learning	All discussion threads were excluded from analysis		
Wk 2 Topic: The Role of the e-moderator	30	7	37
Wk 3 Topic: A future of elearning in the NHS	37	5	42
Wk 4 Topic: Resourcing elearning	94	14	108
Wk 5 Topic: E-learning as an emerging pedagogy	30	3	33
Wk 6 Topic: Student led activity	18	5	23
Wk 7 Topic: Communities of Practice	64	2	66
Wk 8 Topic: Blended learning	97	3	100
Wk 9 Topic: Assessment in online learning	48	3	51
Wk10 Topic: Facilitating and managing the change to e-learning in health and social care	39	3	42
Wk 11 Topic: Case Studies	47	4	51
Wk 12 Topic: Evaluating virtual learning environment	40	0	40
Wk 12 Topic: Evaluating e-learning	21	3	24
Total number	565	52	617

Based on the purpose of the ‘non-compulsory’ forum’ (NCF), it could be safely assumed that all messages in the NCF were contributed voluntarily by students when students had reached the ‘socialisation stage’. In other words, messages from students were contributed at a stage when students had become comfortable enough with the technology to participate freely. With this in mind, all messages in the NCF can be viewed as data for analysis.

However, the ultimate aim of this study was to evaluate IPOL via ACMC. It was important that any selected discourse data should only be those that would allow the salient aspects of learning to be evaluated through CDA. Therefore, selection of messages from the NCF was based on the same criteria used for selecting messages from the CF, in that messages related to learning, as indicated in the topical title of the discussion thread were selected for analysis. Messages contributed to ‘Introducing yourselves’ and ‘The Coffee Bar’ which were informal chats. They provided information on what each student’s profession was and what each student liked doing during their spare time and how each of them rewarded themselves with coffee, wine and chocolates respectively. Apparently, all of these did not directly contribute to any formal interprofessional learning about the subject area of the module. For this reason, these messages were excluded as data for analysis. This resulted in 273 messages being downloaded from NCF for analysis. Table 3.7 on page 123 provides a breakdown of the messages in the NCF taken for analysis.

Table 3.7 Messages selected from non-compulsory forum (NCF) as data for analysis

Topic area	No. of messages		
	Students	e-moderator	Total
‘Introducing yourselves’	Discussion excluded from analysis		
‘Your experiences’	28	2	30
‘Ground Rules’	45	12	57
‘E-moderator’s cyber Office’	30	2	32
‘Technical Tips’	61	16	77
‘Reflections on the module so far’	62	15	77
‘The Coffee Bar’	Discussion excluded from analysis		
Total number	226	47	273

3.5 Analytic Procedures

A descriptive quantitative analysis is first needed so that the discourse data sample for CDA included for analysis was likely to be as broad and as inclusive, but at the same time, as representative as possible for a particular category within the selected sample in this discourse analytic work (Taylor, 2001). In other words, conducting an initial descriptive quantitative analysis was important so that discourse data which were broadly representative can be achieved alongside an efficient analysis in discourse analytic work (Taylor, 2001).

With this in mind, each set of discourse data from the CF and the NCF were first quantitatively analysed using Microsoft Office Excel. The structural features of interactions; frequencies, lengths and nature of the contributions and patterns of the interactions in IPOL derived from the quantitative analyses were then used as reference for which the data for CDA were selected. In this way, a selection process of discourse data was supported by reference to statistics in this study. This was to strike a balance

between achieving a representative sample discourse data and an efficient analysis (Taylor, 2001).

Following the quantitative analysis was the qualitative approach of CDA. The latter being the main analysis of this study was based on Fairclough's three-dimensional framework for a close inspection of the properties of texts, interactions (features of discourse practice-text production, consumption and distribution) and sociocultural practice (Fairclough, 1995). Indeed it was the initial descriptive statistical analysis conducted that had helped to ensure that the textual features in focus of the analysis in CDA were those which were the most significant for a critical analysis (Fairclough, 1989) which was the interactional analysis in stage 2c and 4 of the analytic framework. Therefore the analytic procedure in this study involved the crucial and central part of CDA (Fairclough, 2001) within Fairclough's CDA framework (Table 3.2 on page 100) which was based on the view that discursive practice has three dimensions:

- i. the typed texts in the form of students' messages
- ii. the ACMC learning environment, the instance of discourse practice involving the production and interpretation of texts
- iii. part of the social practice of nurses and AHPs

The analysis commenced with analysing the first dimension; the typed texts in the form of students' messages. This analysis is known as linguistic/semiotic analysis of text (Fairclough, 2001). It was where attention was given to textual organization, which included intersentential cohesion and various aspects of the structure of text (properties of dialogue). In other words, in this textual level, the three domains of ideational, interpersonal and textual analysis in Halliday's (1978) SFL were involved. Since the ideational functions include meta-narratives that circulate society (Rogers et al., 2005), the analysis at textual level included transitivity. Linguistic/semiotic analysis of text

involved the analysis of different processes or types of verbs involved in interaction. As for the domain of interpersonal, the analysis focused on the meanings of the social relationship between participants in the interaction. Hence the mood and modality were assessed for the nature of the sentence in order to determine if the sentence was a statement, a question or a declaration. It was also to establish how assertive the statement was. In this analysis, the thematic structure of the text was also determined. All these 3 steps being carried out at textual level was to explore the grammatical resources that constituted the relations so as to describe the relationships among the texts, interactions, and social practice. For the second dimension of discursive practice, the process of production, interpretation distribution and consumption were analysed. Fairclough (2001) called this the interdiscursive analysis of interaction. This part of the interactional analysis was to determine how each student interpreted and reproduced or transformed text. For the third dimension of socio-cultural practice, the analysis was referred specifically as social analysis of interaction by Fairclough (2001). In the interactional analysis, the ways in which nurses' discourse operated in society was explored. This included an analysis of the nursing technologisation process to address the issue of power, in its sense as a construct being realised through interdiscursivity and hegemony (Fairclough, 1995).

In the final analytic step, attention was paid to the text at its macro level of social analysis to interpret the configuration of discourse practice. This analysis was not done in isolation from those at the micro level, but rather it was integrated with micro analyses so as to establish the link between the third dimension of sociocultural practice with the other two dimensions of text and discursive practice. The connections between all three dimensions were established via the use of intertextual analysis as insisted by Fairclough (1995). With an aim to focus on how 'texts' at all levels worked within the social cultural practices, the use of intertextual analysis was used to bridge the gap

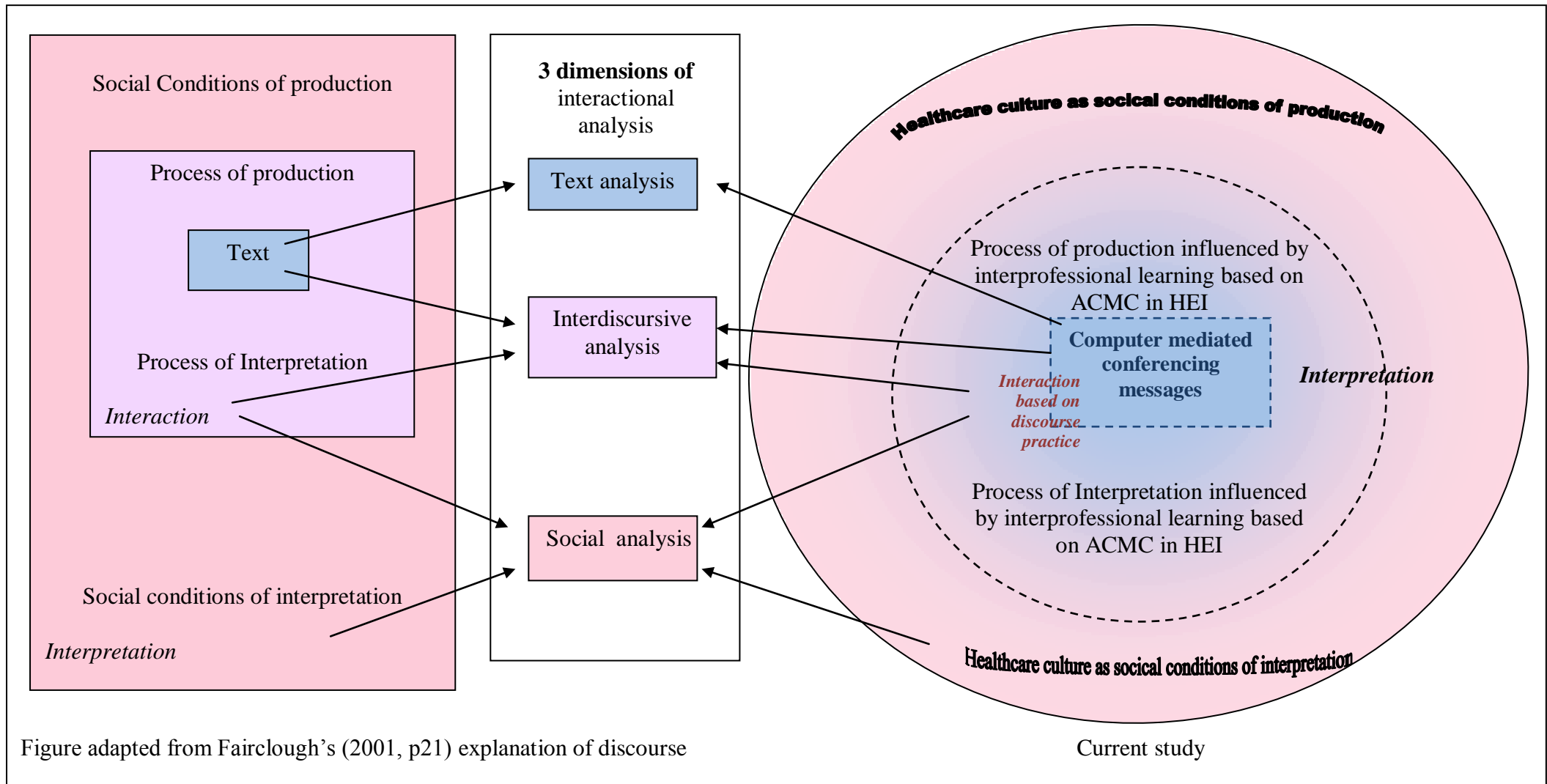
between texts and context. In effect, the deployment of any constructs such as ‘frame’, ‘script’, ‘move’, ‘strategy’ and ‘argument’ in the analysis was tied to textual analysis. By doing so, the distinction between forms of text and contents of text was broken down. This had then allowed the results of the analyses to be firmly grounded and hence, permitted further insights to the findings. Such endeavour was based on Fairclough’s (1995) view on the form of text as its content. According to Fairclough (1995) the forms as signifiers and contents as the signified were in dialectical and hence they are inseparable unit in the sign (Fairclough, 1995). In other words,

contents are always necessarily realized in forms and different
contents entail different forms and vice versa

(Fairclough 1995: 188)

In this regard, there was no one-sided attention given to either the forms or the contents of the text but rather, care was taken to ensure that intertextual analysis which occupied the mediating position in the connection between language and social context was performed alongside linguistic analysis. This was an important step carried out in order to explain why and how social practice was constituted and changed and/or transformed the way it did. Figure IV (on the next page) summarized the application of Fairclough’s dimension of discourse analysis in the current study. Illustration of the application is further demonstrated using a worked example in the final section of this chapter. It is provided in the hope to demonstrate how the interactional analysis based on Fairclough’s three dimension of discourse analysis was carried out in this study.

Figure IV Application of interactional analysis in critical discourse analysis by Fairclough (2003) in the current study



3.5.1 A worked example of interactional analysis

A text from the compulsory forum (CF) was taken as an example to demonstrate the structural and interactional analysis. This text was contributed by a nurse in week 5 whilst discussing the topic on ‘E-learning as an emerging pedagogy’. This message was made in response to the ‘interim’ summary contributed by the e-moderator to highlight to students the main points that were covered in students’ discussions in the past four weeks.

Table 3.8 An illustrative example of the analytic procedure

Student 9 (Nurse) – Week 5/CF/ ‘E-learning as an emerging pedagogy’
Line 1: <i>“Adding to my response about your round up, E-moderator (the name mentioned), I would remind folks that I have not lost light of the fact that e-learning does not equate to LLL (Lifelong learning)</i>
Line 2: <i>nor did I ever believe that. I just did not refer back to this concept in this activity as I felt we had debated that earlier and and agreed this was the desired approach.</i>
Line 3: <i>Maybe this again is a reflection point for me; I was trying to avoid repetition and avoid frustration of repetition but now realise we need to refer back regardless.</i>
Line 4: <i>Never have I equated E-learning to LLL, nor do I believe or implied this.</i>
Line 5: <i>On the contrary I have argued in favour of blended approaches (refer back to previous postings).</i>
Line 6: <i>I would argue, and yes I am challenging here, that people with a vested interest in E-learning are trying to move beyond its capabilities at this stage.”</i>

The above discourse, as a semiosis itself, was analysed based on Stage 2c of the CDA analytical framework developed by Fairclough (2003). The analysis comprised structural analysis of the order of discourse and interactional analysis, which was in

turn, represented by interdiscursive analysis and linguistic analysis of the text. The analyses in their different stages are explained in the discussion as follows.

Stage 2ci: Structural analysis of the order of discourse

In this stage of analysis, the text was analysed paradigmatically. The relationship between the student's contributions as a qualified HCP, and her use of computer conferencing within a HEI for IPL were considered. The aim of analyzing the text paradigmatically was to specify the semiotic resources available to the student in the usual grammatical sense of 'paradigm'. This included the choices from the order of discourse, genres and discourse and linguistic and semiotic systems, all of which the student had made amongst them to construct this particular text.

Stage 2cii: Interactional analysis

In this stage, attention was focused on how those social structuring of semiotic diversity which were available to the student were used for the semiotic work in APMC. This stage is represented by; 2ciii: interdiscursive analysis and 2civ: linguistic analysis.

Stage 2ciii: Interdiscursive analysis.

In this stage, the text was analysed paradigmatically and syntagmatically. The former analysis was to identify which genres and discourse were drawn upon in the text, and the latter was to see how they work together in the text. Together, these steps would allow one to establish the extent of hybridity in the text, which in turn, would allow one to determine how stable the network of practices was and how strong the boundaries between practices were.

Through this analysis, it was found that the text was in the form of written communication with no sign of any verbal communication. The text appeared to have been properly structured as a monologue to provide information to clarify the contributor's stand. Indeed, there was also no sign to suggest that this was a form of

communication, as one would expect to see in any asynchronous discussion forum. In this case the genre was established to be both a clarifying and justifying one, which was commonly found in nurses' adverse incident reports. The latter were made by nurses in cases when adverse incidents had occurred in practice, which required nurses to report for accountability. Hence through this analysis, it can be concluded that the text was not hybrid.

Stage 2civ: Linguistic analysis of text

This stage of analysis involved analysis of the following:

a. Whole text organization

At this level, the linguistic features which relate specifically to genre were analysed. Through the analysis, the text was demonstrated to have been structured not only to clarify but also to defend and justify oneself. Clarifying was formulated in "*I would remind folks that....*" (Line1) and, "*nor did I believe..*", (Line 2). Clarifying and justifying was formulated in "*I just did not.....as I felt....*" (Line 2) and "*I was trying to...*" (Line 3) Through this analysis, the defensive character of the text was established.

b. Clauses combination

At this level, analysis involved determining of the sentences if they were simple, compound or complex. Attention was paid to looking at how the sentences were linked through their vocabularies, which helped to determine how dialogical the text was. In the text, the word 'challenging' was used. Other than this word, many series of declarative sentences were also made. None of which comprised any conjunctions or sentence adverbials (like 'however', 'nevertheless', 'therefore') to connect the sentences into an argumentative thread. This analysis helped to elicit evidence to suggest that the text is highly non-dialogical, that it had failed to engage its readers.

c. Clauses

At this level, the linguistic features of the text were examined in terms of the following:

- i) mood - whether clauses are declarative, interrogative or imperative
- ii) modality - marking of degrees of commitment to truth
- iii) transitivity - what types of processes (and verbs) are used in clauses

Fairclough (2001: 260)

In this text, how the series of declarations, which had made the text non-dialogical were first examined through analysing its linguistic feature; mood of the text. Analysis then continued with looking at whether any parts of the text were marked by modalizing expressions. In this case modalization expressions were used but in a negative way: “*nor did I ever believe*”. Its use was to emphasize that there was no controversies or grey area in the issues being discussed.

Next, the transitivity of the text was considered. This was because by doing so, attention was directed at the verbs with objects. Through this analysis, it was found that in Line 3, the pronoun ‘we’ was used to implicitly demand all students to refer to previous postings, for them to fully appreciate why the present text had come across as declarative. In addition, a vague collective term of ‘people’ in Line 6 was also found to be used to refer to the healthcare authorities and the executive members of health education, to make other students draw their own inferences on ‘people’. This was one example how the creator of the text had avoided referring explicitly to ‘the people’ when the statement carried an accusatory tone that e-learning was being introduced when it was not ready to fulfill certain requirements in (healthcare) education.

d. Words

This analysis involves examining the choice of vocabulary, and included examining the

semantic relations between words (eg. Synonyms, hyponyms), denotative and connotative meaning; collocations (patterns of co-occurrences), metaphorical use of word, etcetera

(Fairclough 2001: 242).

This analysis determines how technical the vocabulary was in the text. For example, there were many technical vocabularies used; “*Elearning*”, “*LLL*”, “*blended approaches to learning*”. All these lexical items would be foreign to students who were not exposed to e-learning and were unfamiliar to students who had not come across mixed method approaches in e-learning and classroom teaching and learning and hence, had not associated these terms with lifelong learning. Particularly in Line 6, the vocabularies were somewhat technical with a nursing perspective - ‘the people with vested interest in e-learning’ were not surprisingly known to only HCPs who were either involved in education or who were functioning at management level, the majority of whom would probably be nurses. These observations suggested that the text is highly technical. This analysis has thus, helped to determine the extent of hybridity of the text.

3.6 Conclusion

Fairclough's version of CDA, influenced by sociolinguistic work and Foucault's work was used to achieve the purpose of this study. By drawing on CDA based on Fairclough's view of language use as social practices, analysis of the text was with its historical and social context explained. Such approach to data in the social context is important because discourse always involves power and ideologies are connected to not just the present but also the past context (Fairclough, 1995). In fact, it had already been recognised that discourse analytic work relied very much on the analyst's knowledge of the social context (Fairclough, 1995). Due to my position in nursing, as well as being a student participant in the conference, I might not be lacking in knowledge of the social context. In this regard, knowledge closest to reality can most likely be obtained, which otherwise, was impossible in the case if I were an outsider of the social context being investigated.

Having said that, discourse analytic work was ultimately interpretative, and it was not at all surprising for discourse to be interpreted differently by different people. Nevertheless, this problem was negated to a large extent due to the nature of the data in this study. The fact that the data source was a discussion forum, albeit the data were not products of any conventional talk, they were products of students' discussion volunteered in an authentic learning environment. For this reason, the discourse in the conference was considered to be highly interactive. In this sense, analyses of text production in the conference were not likely to be isolated from audience reception. Text consumption was not only being able to be analysed, but also, it could be analysed as adequately as text production. In effect, information on how producers of texts drew upon and structure the orders of discourse could be obtained. Additionally, due to the nature of the data, the organisational routines for producing and consuming texts, the discursive processes within the processes of production and consumption of texts were

also made known. Certainly, the data for analysis had allowed the principle of textual analysis, combining analyses of practices of production and consumption to be operationalised.

However, it was unrealistic to expect all individuals to have come from the same background, with the same knowledge and have similar social power positions, and share similar experience. After all, interpreting text was indeed dialectical, and the process of interpretation relied heavily on the interface of the variable interpretative resources people brought to bear on the text, and the properties of the text itself (Fairclough, 1995). My interpretation of the texts was at the mercy of the amount of interpretative resources that was available and brought into the interpretation process by me, as a researcher. In this light, this study was peer reviewed; it was subjected to the scrutiny of those who were experts in nursing and non-nursing disciplines (Further discussion on this is done in chapter 7). Whilst it was important to subject this study to peer review, it was important to appreciate that using CDA in any critical study, was not to seek for the 'right' interpretation, but rather an adequate interpretation (Fairclough, 2001). Certainly, the aim of using CDA in the study was not to achieve the right interpretation, but more or less, a plausible interpretation of the text. The next two chapters on data analyses demonstrate how this was done.

Chapter 4: Quantitative Data Analysis and Findings

4.1 Introduction to the chapter

Critical discourse analysis (CDA) is the main method of analysis in this study. As discussed in the chapter of methodology and methods, the data sample was selected based on the theoretical assumption of discourse theory (Taylor, 2001) and Salmon's (2003) concept of e-learning (page 119-121). Besides basing the data selection on the relevant theories, representativeness of a specimen discourse data for a particular category within the selected sample in a discourse analytic work should be ensured (Taylor, 2001) in order that the textual features in focus of the analysis in CDA are the most significant for a critical analysis (Fairclough, 1989). With this in mind, the selection of discourse data for CDA was performed with the aim to ensure that the sample included for analysis was broad enough in order for it to be as inclusive as possible.

Whilst the data selection was performed in the acknowledgment that a representative sample data was important, it was also carried out in the recognition that the sample data is not more than what is required in an efficient and most importantly, a meaningful analysis. The aim of this chapter is to demonstrate how the choice between a representative discourse data and a broad sample of data which yet, permitted an efficient analysis was achieved via a selection process supported with reference to statistics. This chapter presents the findings derived from a descriptive statistical analysis of the online discursive behaviour of the nurses and the allied healthcare professionals in interprofessional online learning (IPOL) answers the first research question, "What are the communication and interactive patterns of interprofessional online learning by healthcare professionals in higher education?". With reference to the findings via a descriptive statistical analysis, the chapter ends by establishing the sample specimens for CDA as the product of this final selection process.

4.2 Descriptive statistical analytic procedure

Based on the theoretical assumptions of discourse theory and Salmon's concept of e-learning, a pre-selection of discourse data was conducted. This resulted in the pool of data of a post-qualifying module that was generated over the 11 week-period from week 2 to week 12, as potential discourse data. These data as potential discourse data comprised 617 messages from the compulsory forum (CF) and 273 messages from the non-compulsory forum (NCF) (Table 4.1).

Table 4.1 Data source and number of messages

Compulsory Forum	Non-compulsory Forum
Pre-selected messages	
615 messages	273 messages
Types	
Topic 2: 'The model my skepticism' (week 2)	'Learning Experiences'
Topic 3: 'A future of elearning in the NHS' (week 3)	
Topic 4: 'Resourcing elearning' (week 4)	'Ground rules'
Topic 5: 'E-learning as an emerging pedagogy' (week 5)	
Topic 6: 'Student led activities' (week 6)	'M's Cyber office (e-moderator's office)'
Topic 7: 'Communities of Practice' (week 7)	
Topic 8: 'Blended learning' (week 8)	
Topic 9: 'Assessment in online learning' (week 9)	'Technical tips'
Topic 10: 'Facilitating and managing the change to e-learning in health and social care' (week 10)	
Topic 11: 'Case Studies' (week 11)	'Reflections so far'
Topic 12: i) 'Evaluating virtual learning environment' (week 12) ii) 'Evaluating e-learning'	

These preselected messages were downloaded and printed out as they were presented on screen. The names of all participants were replaced by pseudonyms. The term 'M' was used to refer to the e-moderator. The terms; 'Student 1' to...'Student 4' were used to refer to the 4 AHPs who were registrants of the Health Profession Councils in the United Kingdom. The terms 'Student 5' to...'Student 13' were used to refer to the 9 students who were either nurses, midwives and/or health visitors in practice and any healthcare professionals (HCPs) who had a nursing background and were registrants of the Nursing and Midwifery council in the United Kingdom.

The pre-selected volume of messages was a result of contributions from students and the e-moderator posted into the topical areas designed by the e-moderator and to the weekly threaded discussions created either by the e-moderator or mostly the students. Messages posted by students as direct responses to the e-moderator's messages in ongoing discussions and to the e-moderator's initial messages in any topical areas and/or as initiation of a new discussion thread are regarded as parent postings (Further differentiation of the parent postings from students is discussed in section 2.3.1). All other messages from students and the e-moderator are referred to as contributions or responses. Since messages from the e-moderator can be singled out easily, they were excluded in this part of the analysis. This resulted in a total of 791 messages subjected to quantitative analysis (565 from CF; 226 from NCF).

By using 'Microsoft Office Excel', all 791 messages contributed by students were first analysed to determine their frequencies and lengths. The analysis was to determine the difference in the intensity of the conference participation between AHPs and nurses. The analysis continued with the examination of the patterns of interaction. It did so by first determining the purpose of the contributions, which established the nature of the messages; parent postings or responses. Through the analysis of interactive patterns, it then continued to examine the ways in which the discussion threads were

persisted and maintained. All findings of the different stages of the quantitative analysis are reported in the next section. Bar graphs are used to provide pictorial representations of the findings, because they were found to be the best method of illustration. The patterns of the findings are also summarized in the section on critical remarks to explain the selection of discourse data for CDA.

4.3 Findings based on descriptive statistical analysis

4.3.1 Frequencies of contributions

In the CF, there were 565 messages contributed by students. Of this total number, 161 of the messages were contributed by the AHPs, 404 of the messages were contributed by nurses. It appeared that the total number of messages contributed by nurses was higher. Over the 11 week period, the number of messages contributed by nurses on average was also generally higher than that contributed by the AHPs. When discussion for each topic area is observed, it can be seen that other than the discussion for topic 4, 7, 10 and 11 (Table 4.2.1 on page 139), in all the remaining 7 topical discussion threads, the average number of contributions by nurses was generally higher than that contributed by the AHPs.

A similar trend of a lower number of contributions from the AHPs and a higher number of contributions from nurses was generally observed in the entire NCF (Table 4.2.2 on page 139). Other than the topic area in 'Technical Tips', the average number of messages contributed by nurses had far exceeded the average number of messages contributed by the AHPs. Indeed, of the total 226 messages contributed by students in the NCF, 53 messages were contributed by the AHPs. This number of contributions by the AHPs was in contrast to the high number of contributions (173 messages) made by nurses. At this stage of the analysis, it appeared that in the 11-week period nurses had generally contributed more frequently than the AHPs in both forums.

Table 4.2 Average number of contributions made by nurses and AHPs (y-axis) in the various topic areas (x-axis)

Table 4.2.1 Average number of contributions made by nurses and AHPs (y-axis) in the various topic areas (x-axis) in CF

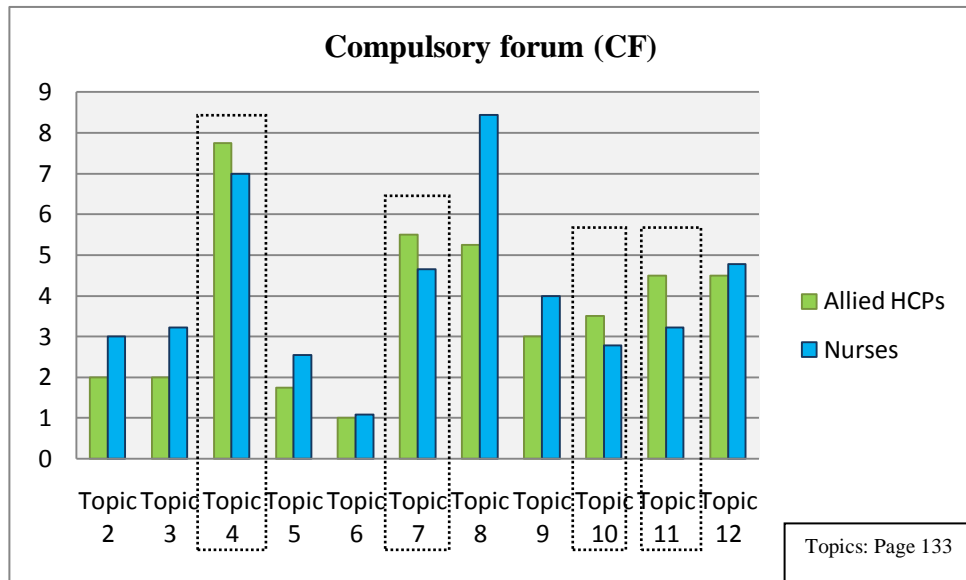
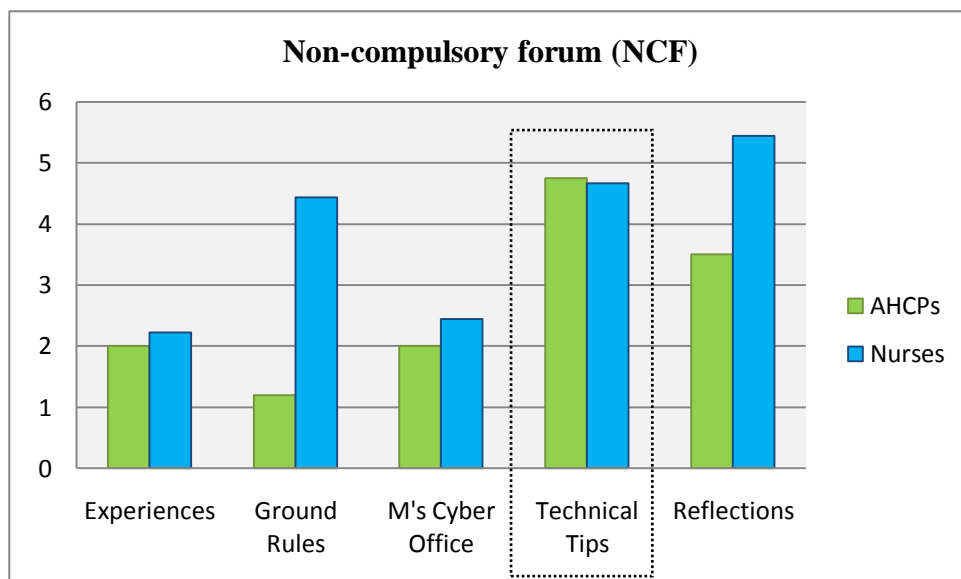


Table 4.2.2 Average number of contributions made by nurses and AHPs (y-axis) in the various topic areas (x-axis) in NCF



So far, nurses appeared to be more active in online participation than the AHPs. Having made that conclusion, it is important to know that such observation might have been based on a simplistic view of students' online participation. This observation in which nurses' contributions were seen to be frequently higher than that of the AHPs was expected, simply because there were more nurses than AHPs in the conference; 9 nurses versus 4 AHPs. Therefore, one needs to take the composition of the student population into consideration when making this observation.

With this in mind, a closer look at each student participation rate was carried out. When each student's online discursive behaviour was scrutinized, it became obvious that not every student contributed to each weekly topic to the same degree. Such variability in the intensity of communication amongst individual students was evidenced between the nurses and AHPs in both forums. In the CF, the average contributions by the AHPs in one topic area varied from a high number of 16 messages to no messages (Table 4.3.1 on page 141). Similarly, the average number of contributions by each nurse for each topic could also vary; from a high number of 23 messages to no messages being contributed at all (Table 4.3.2 on page 141). In the NCF (Table 4.3.3 on page 142), the average number of contributions by nurses varied from a high number of 18 messages to no messages, and the average contributions made by the AHPs varied from a high number of 10 to no messages. Thus, passive participation in some topic areas by some AHPs was evidenced amongst a handful of nurses. On the other hand, active participation evidently found amongst the nurses was also found amongst the AHPs. In other words, whilst AHPs accounted for some active participation, some nurses accounted for some inactive participation. Therefore, it can be argued that whilst some AHPs were just as active as nurses in participation, some nurses were just as inactive as the AHPs in participation. Certainly, this trend was similar in both forums.

Table 4.3.1 Average number of contributions made by AHPs (y-axis) in the various topic areas (x-axis) in CF

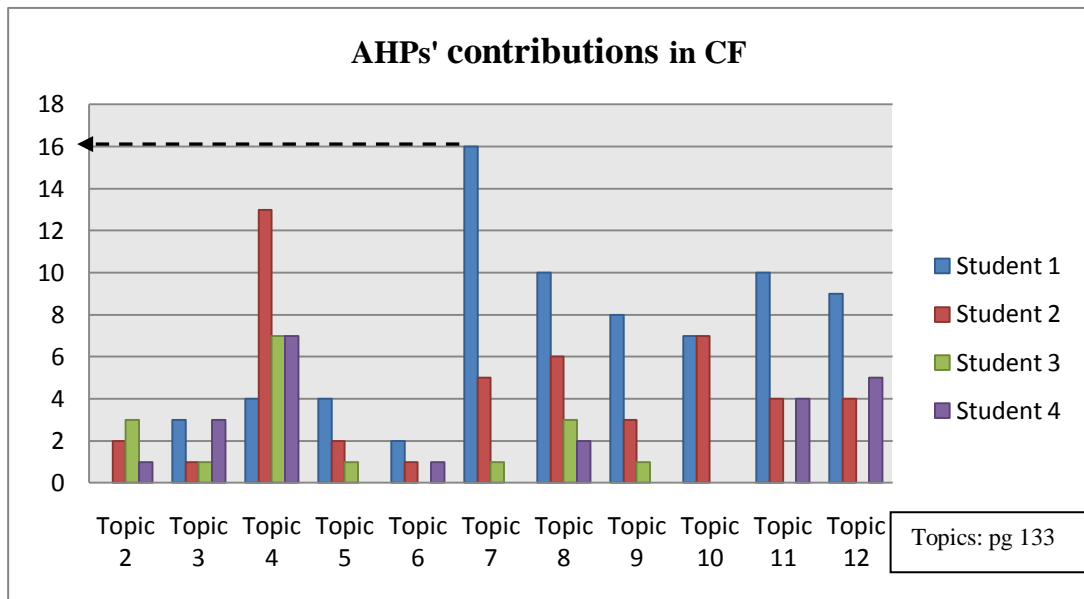


Table 4.3.2 Average number of contributions made by nurses (y-axis) in the various topic areas (x-axis) in CF

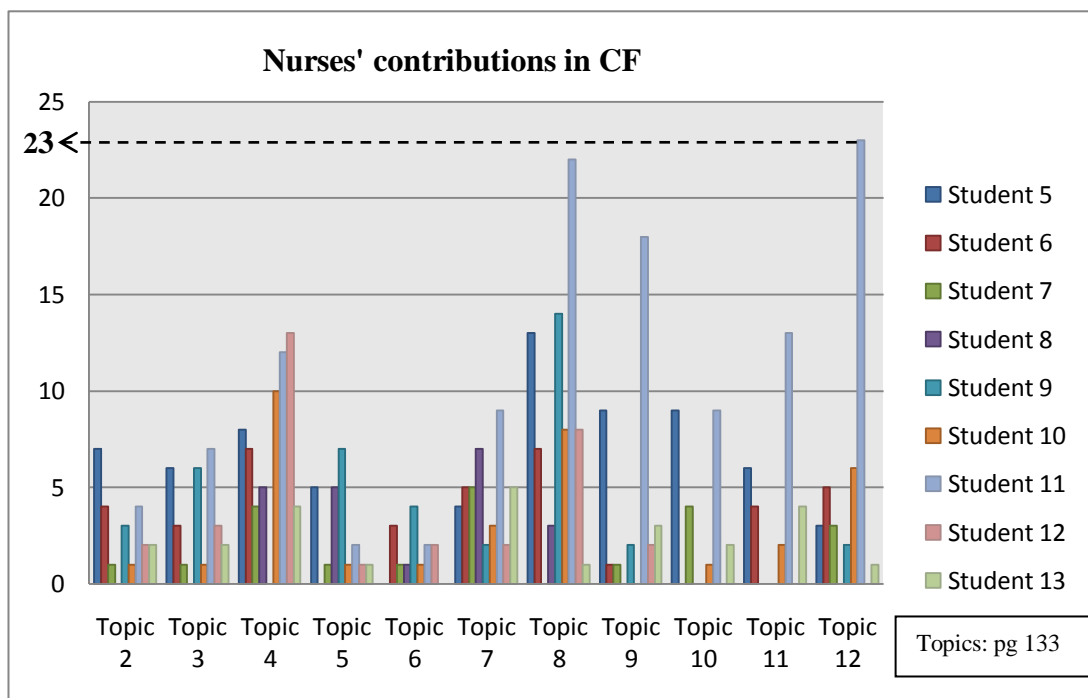
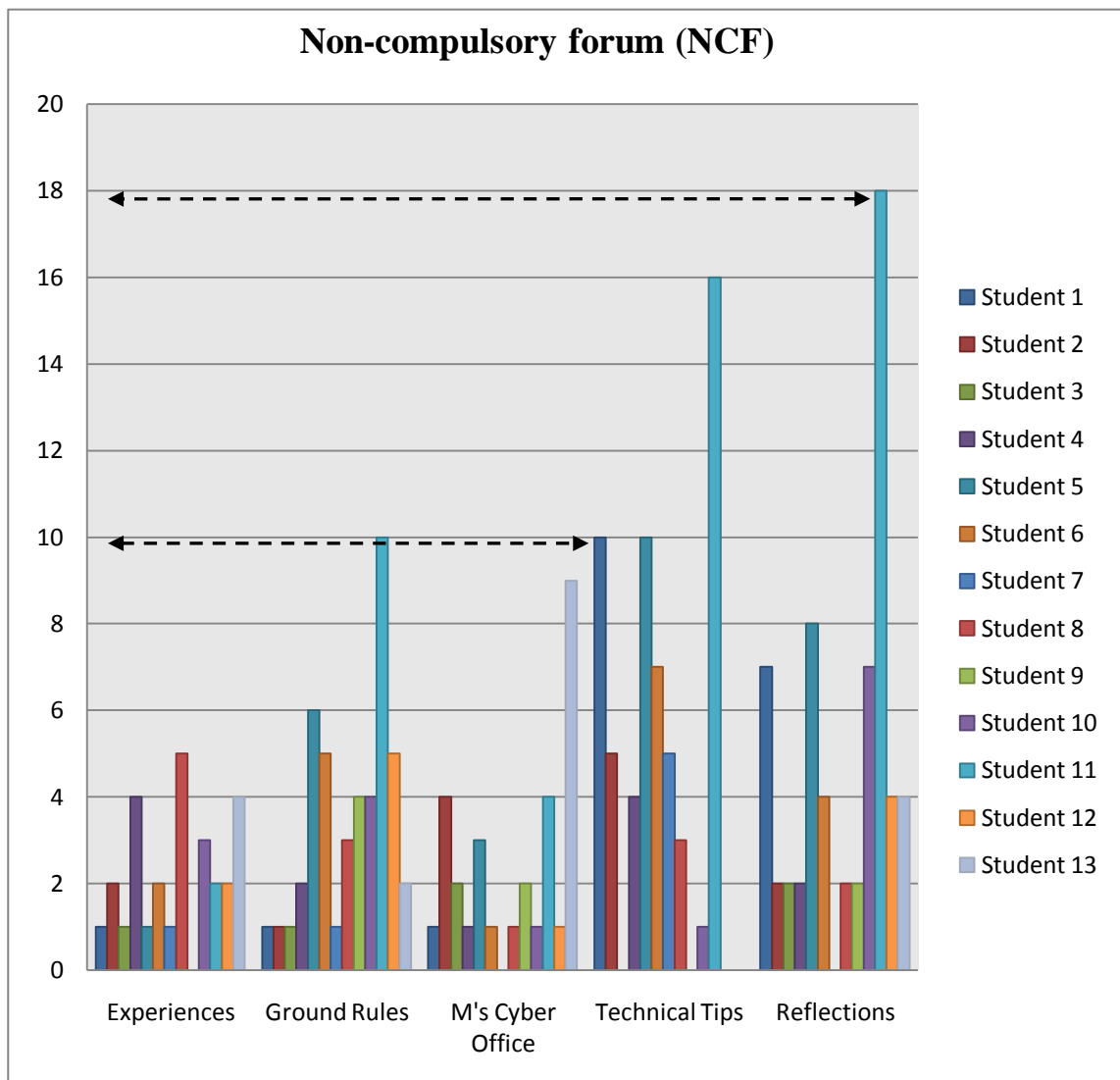


Table 4.3.3 Average number of contributions made by each student (y-axis) in various topic areas (x-axis) in NCF



Nevertheless, despite the variability in contributions amongst individual students, the higher number of contributions came from nurses. In the CF over the 11-week period, whilst the highest average contribution of 16 messages was from an AHP, the average number of contributions by AHPs as a whole was 3.65 messages. On the other hand, the highest average contribution of 23 messages was from a nurse, and the average number of contributions by nurses as a whole was 4.08 messages, which was higher than that observed amongst the AHPs. Similarly, over the 11-week period in the

NCF, when the highest average contribution of 10 messages was from an AHP, the average number of contributions by the AHPs as a whole was only 2.65 messages. As for nurses, the highest average contribution made by a nurse was 18 messages and the average number of contributions by nurses as a whole was 3.84 messages. The latter was again higher than that of the AHPs. Hence, nurses indeed had still contributed more frequently, and accounted for a larger volume of messages.

Besides this, there is another observation made in this analysis. It can be seen that both AHPs and nurses had lower average contributions in NCF than in the CF. However, despite the fact that both groups had a reduction of contributions in the NCF, the drop in contributions was observed to be more significant amongst the AHPs. The average number of contributions of AHP had dropped from 3.65 to 2.65 messages (a drop of 1 message per AHP), whereas the average contribution for nurses had dropped from 4.08 to only 3.84 messages (a drop of 0.24 messages per nurse). Based on the higher significant drop in active participation from AHPs compared to nurses in the NCF, students' online participation rate as influenced by the requirement of a module appeared to be more pronounced amongst the AHPs. Seemingly, when there was no expectation of students to participate in NCF, AHPs were more likely than nurses to participate less actively than they did in CF where a requirement of student participation was imposed in the module. Hence, despite that the variability in participation rate was observed amongst individual students, in the entire conference; CF and NCF combined, nurses generally contributed more than the AHPs. More evidence for this interpretation is presented in the other sections which follow.

4.3.2 Lengths of contributions based on word count

The average length of contributions from any individual AHPs in CF was generally shorter than those contributed by nurses (Table 4.4.1.1 page 145 & Table 4.4.1.2 on page 146). In the CF, contributions made by a AHP had a highest average word count of 361 words and a lowest average word count of 13 (Total average length of messages: 99.0 words); contributions made by a nurse had a highest average word count of 758 words and a lowest average word count of 18.5 (Total average length of messages: 139.9 words). Obviously, individual nurses had generally contributed lengthier messages than the AHPs in the CF. In fact, other than for Topic 8 in CF, the average length of nurses' contributions was generally longer (Table 4.4.1.3 on page 146).

On the contrary, in the NCF, the average lengthiest contribution came from a AHP with a word count of 283. The average lengthiest message contributed by an individual nurse had a slightly lesser word count of 226.75 (Table 4.4.2.1 on page 147). Despite this observation, by averaging the word counts between the two groups, it was only in 2 topical areas; 'Ground Rules' and 'M's cyber office' that messages from the AHPs were lengthier. Otherwise, in all other topic areas, the lengths of nurses' messages were always longer than those produced by the AHPs (Table 4.4.2.2 on page 147). Hence, even when the lengthiest message was from an AHP, nurses as a whole had contributed lengthier messages than the AHPs (Average word count in AHPs' messages: 73.76; Average word count in nurses' messages: 79.35).

Apparently in the entire conference, whilst the population of active students was observed to be a mix of nurses and AHPs in terms of the frequencies of the posting of messages, lengthy messages were generally posted by nurses in the two forums. For this reason, nurses' contribution accounted for the large volume of messages in many of the

discussion threads in both the CF and NCF, and this certainly reinforced the impression that a large volume of messages was produced by nurses.

Table 4.4.1 Average length of contributions by each student (y-axis) in various topic areas (x-axis) in CF

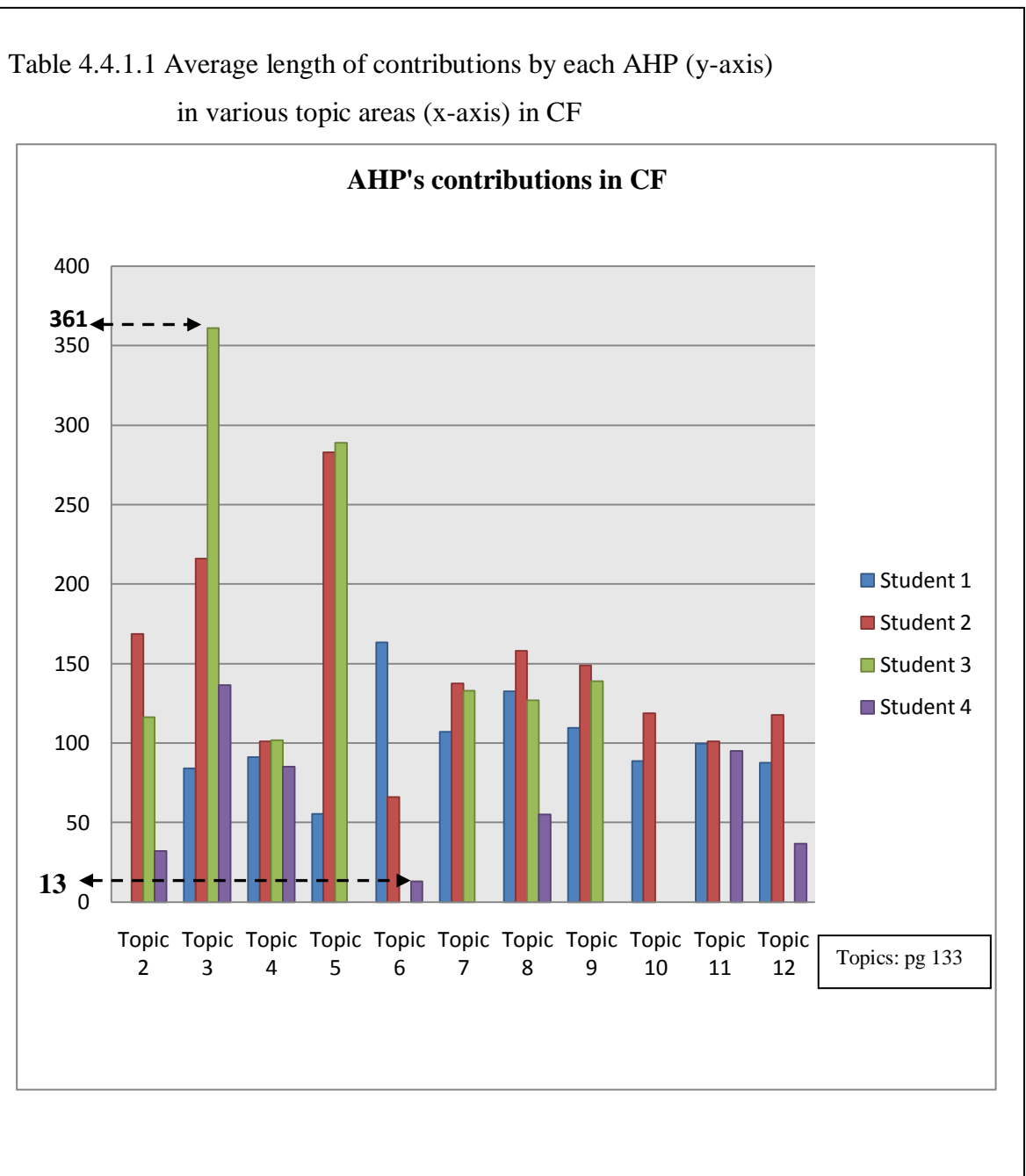


Table 4.4.1.2 Average length of contributions made by each nurse (y-axis)
in various topic areas (x-axis) in CF

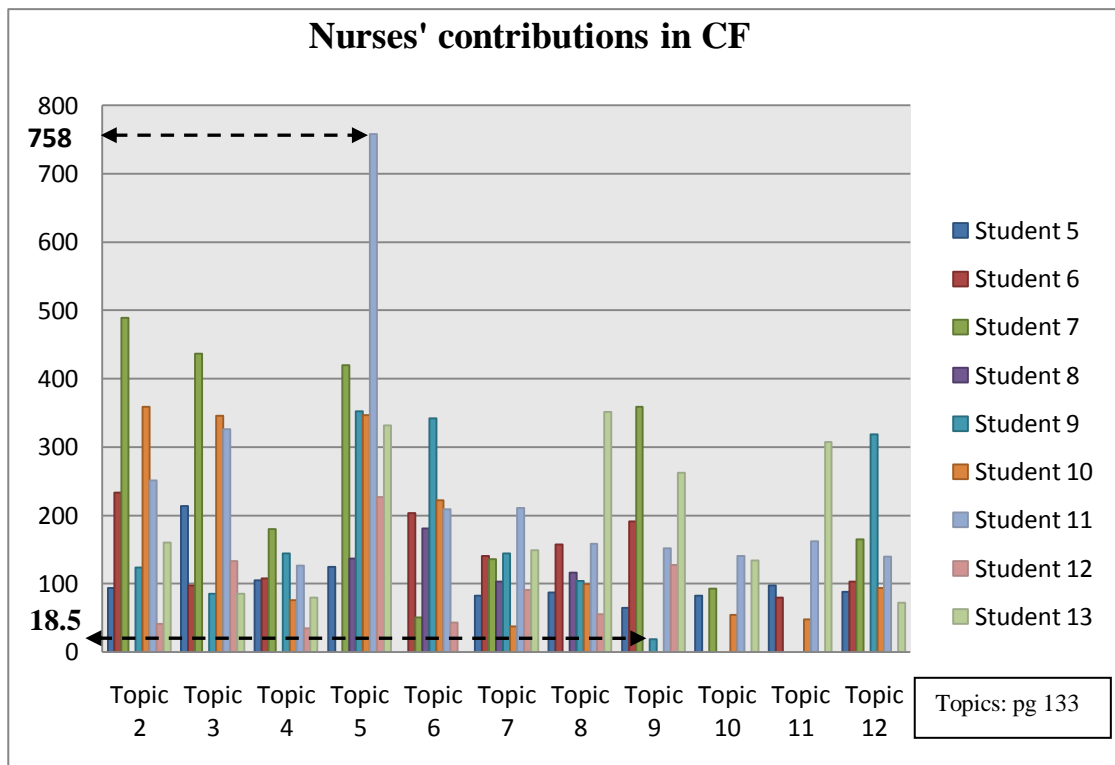


Table 4.4.1.3 Average length of contributions between nurses and AHPs (y-axis)
in various topic areas (x-axis) in CF

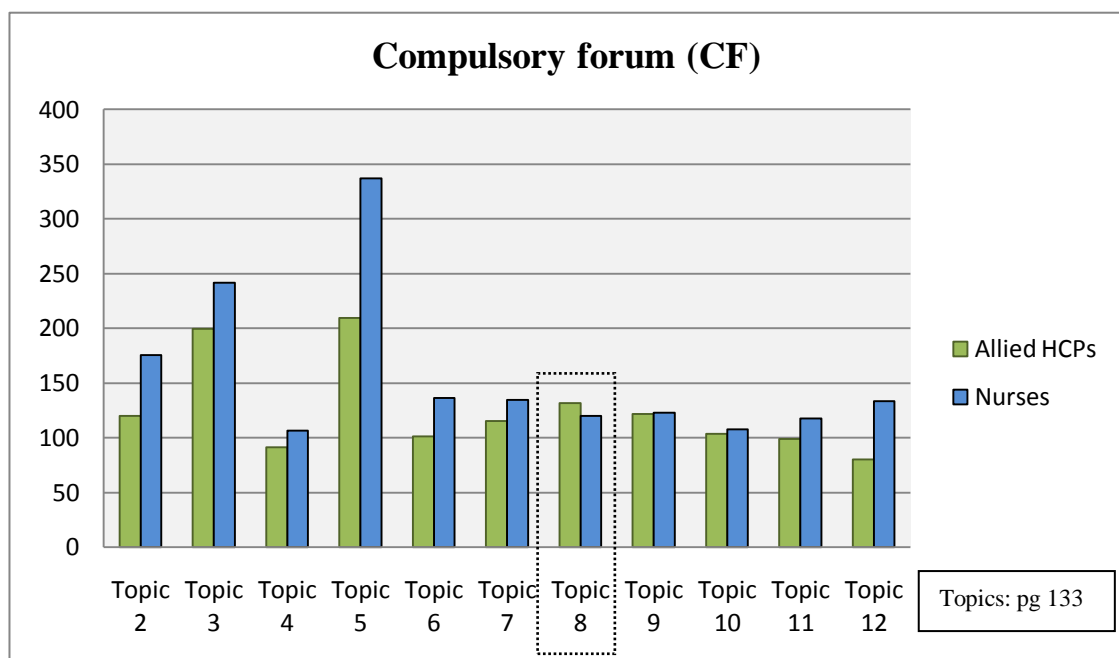


Table 4.4.2 Average length of contributions made by students (y-axis) in various topic areas (x-axis) in NCF

Table 4.4.2.1 Average length of contributions made by individual students (y-axis) in various topic areas (x-axis) in NCF

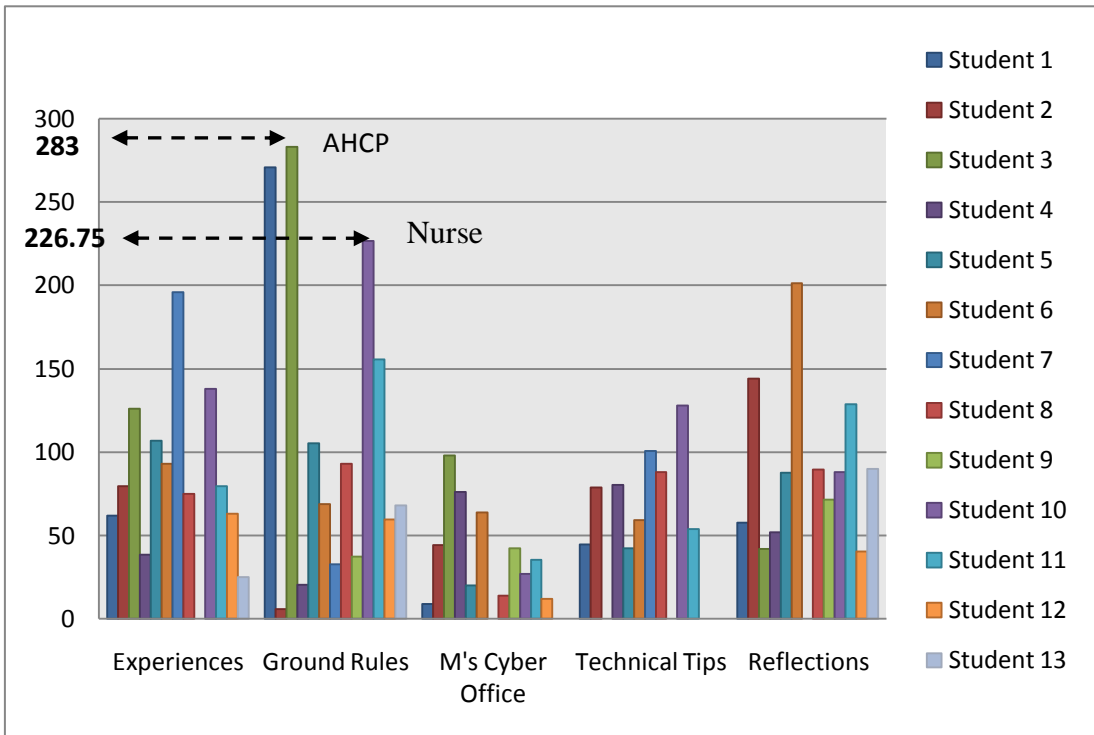
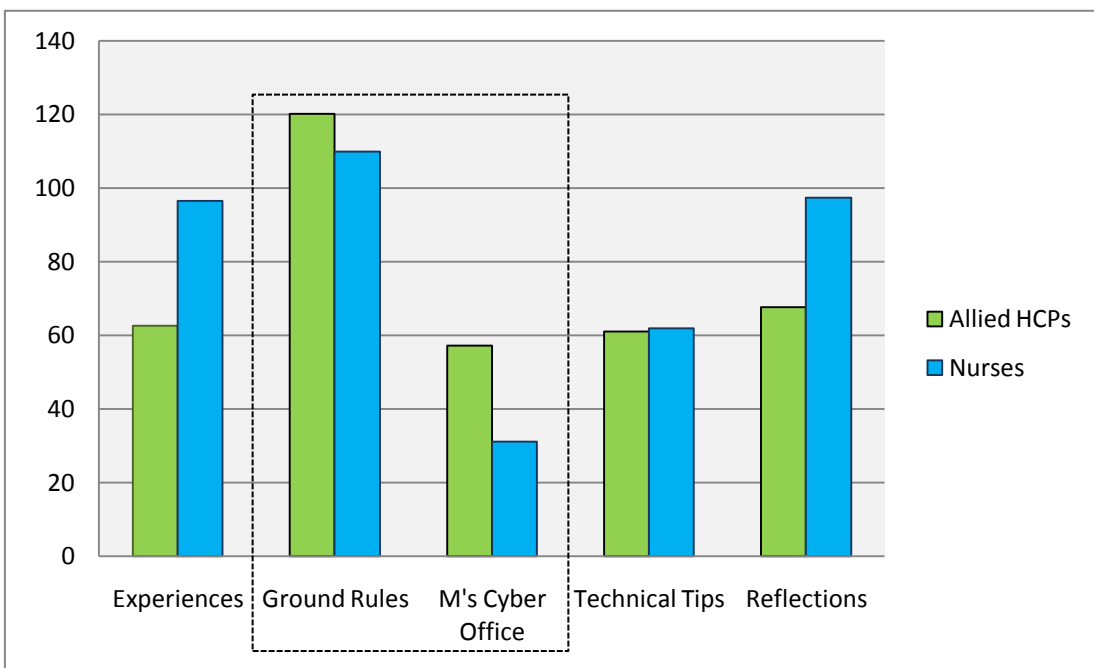


Table 4.4.2.2 Average length of contributions made by nurses and AHPs (y-axis) in various topic areas (x-axis) in NCF



4.3.3 Patterns of interaction

4.3.3.1 Parent postings

As discussed on page 134, parent postings took several forms. They included messages which were created as direct responses to the e-moderator's ongoing messages and to the weekly topics posted by the e-moderator at the start of a discussion thread. Parent postings are also texts which were initiated as a new discussion thread in response to the ongoing discussion to start a new discussion thread. For the former type of parent postings, the creation of the texts was based around the ideas posted by the e-moderator. For this reason, students would have to consider the relevance of their own message to the e-moderator's messages before posting them to the forum. However, despite the fact that these messages were worked out independently by the students, they were created based on issues highlighted and naturally guided by the e-moderator. Hence, whether these texts were created in response to the e-moderator's messages or were created as student's very first messages to start a threaded discussion, they were parent postings and were referred to as e-moderator based parent postings (MBPPs) in this study.

Similarly, messages created by students independently with ideas expanded from students' own interpretation of previous postings, rather than based on moderator's guidance were also classified as parent postings. Despite the fact that these messages were posted in response to the ongoing discussions, they were different from other responses. These messages were posted with no other aim except to move existing discussion into different directions. The aim of these messages to start a new thread for discussion was clearly evidenced from the different titles from previous postings being given to these messages. For this reason, these self initiated messages by students were also parent postings in this study. Since these messages as parent postings were self-initiated by students, they were referred to as self-initiated parent postings (SIPPs).

In the CF, there were 36 MBPPs and 62 SIPPs created in the ongoing discussion in the 11 week period of IPOL (Table 4.5.1 on page 152). Of the 36 MBPPs, 14 were from AHPs and 22 were from the nurses. MBPPs from the AHPs were contributed early in the week, whereas many MBPPs from nurses were posted much later in the week. Therefore, it was common to find some MBPPs from nurses being created, even after an MBPP was already created by the AHPs in the same topic area. As a result, nurses accounted for a higher ownership of all MBPPs. With regards to the creation of SIPPs, of the 62 SIPPs in CF, 8 were from AHPs, and the remaining 54 were from nurses. From one glance it was obvious that for any parent postings in the CF, whether they were e-moderator based or self-initiated, they were predominantly produced by nurses.

Similar observation was made in many topic areas in the NCF. There are 9 MBPPs and 44 SIPPs produced in the 11 week-period. This trend of low volume of MBPPs against a high volume of SIPPs was expected in the NCF, as there was less topic area designed by the e-moderator. Other than ‘Experiences’ (2), ‘Ground Rules’ (4) and ‘Reflections so far’ (1), spaces with a clear purpose for student participation at own initiative was created instead; ‘M’s Cyber Office’ and ‘Technical Tips’. For this reason, discussion threads in the NCF were usually self-initiated by students rather than based on a topic designed by the e-moderator as those seen in the CF.

Of the total 9 MBPPs, AHPs accounted for 2 of them and nurses accounted for 7 of them. Obviously when there were less MBPPs created by the AHPs in the NCF, and naturally, it was less common to see nurses creating an MBPP in the presence of one that was created by the AHPs in the same topic area. Nevertheless, a similar trend was observed in the NCF that nurses still accounted for a higher ownership of all MBPPs in the NCF, and the first MBPP in all topic areas designed by the e-moderator were owned by the nurses.

As for SIPPs, AHPs accounted for 16 SIPPs and nurses accounted for 28 SIPPs. Many of the SIPPs produced by students were concentrated in the three topic areas; 'M's Cyber office' (AHPs: 7, Nurses: 11), 'Technical Tips' (AHPs: 6, Nurses: 6) and 'Reflections so far' (AHPs: 2, Nurses: 11) (See Table 4.5.2 on page 152). Notice that the two sites for the topical areas 'M's Cyber office' and 'Technical Tips' which were designed with the intention for them to serve as sites for student access for academic supervision and technical support, there were large volumes of parent postings produced by the AHPs. It appeared that the issues surrounding academic tasks and the technology was intense amongst the AHPs to result in their increased initiation of SIPPs in the constructivist learning environment.

Another interesting observation was, in the presence of the 4 MBPPs produced by nurses in 'Ground Rules', the only SIPP that was posted by student afterwards, to determine their own rules for regulating each other's online behaviour during this 12-week online learning was from an AHP (See Table 4.5.2 on page 152). This strongly suggested whilst the e-moderator and the nurses were eager to establish some ground rules on how students should conduct discursively in this learning environment, the AHPs might have a slightly differing view of the ground rules which were established by the nurses in previous discussions.

This observation made in the topic area 'Ground rules' also suggested that problems faced by students in this learning environment were not just those derived from the subject contents, neither were they problem confined to technological issues. The many MBPPs created by nurses and the SIPP created by the AHP in 'Ground rules', suggested that the problems concerning students were also those in relation to the social context of learning. This observation is affirmed by the findings in the subsequent stages of quantitative analysis in this chapter and CDA of the texts in the next chapter.

At this stage of the analysis, it appeared that issues of the asynchronous learning environment were significant enough to result in many parent postings created by nurses and the AHP in 'Ground rules'. This observation when interpreted in light of the assumption that 'Ground rules' was designed by the e-moderator for students to address student online discursive behaviour, the findings supported those found in previous work in which problems associated with collaborative online learning were found to be beyond those related to the subject contents and the technology. Instead problems were extended to those surrounding the social constructivist learning environment (Loke, 2007).

Table 4.5 Number of contributions of ‘Parent postings’ (y-axis) in various topic areas (x-axis)

Table 4.5.1 Number of contributions of ‘Parent postings’ (y-axis) in various topic areas (x-axis) in CF

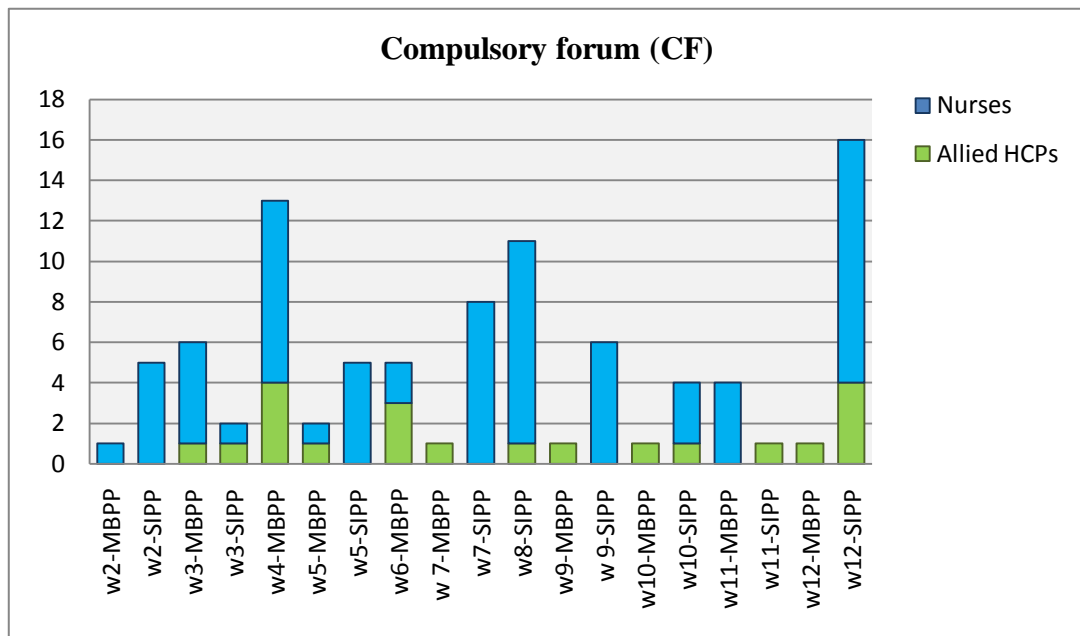
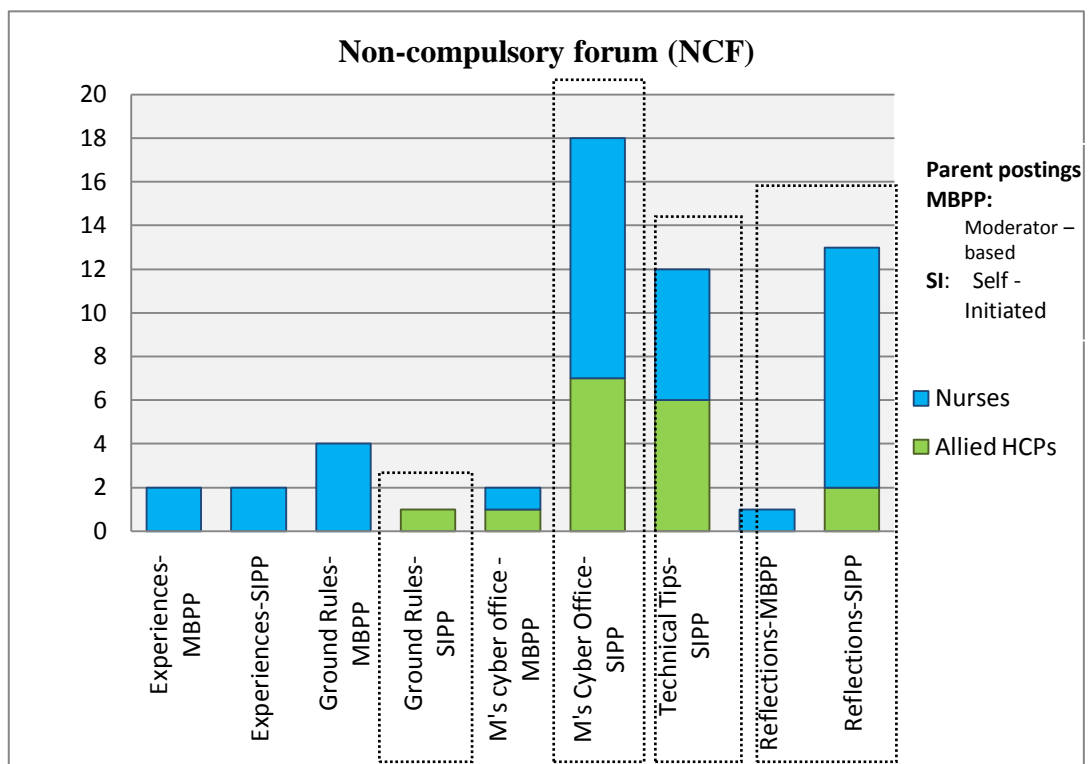


Table 4.5.2 Number of contributions of ‘Parent postings’ (y-axis) in various topic areas (x-axis) in NCF



4.3.3.2 Degree of student participation

4.3.3.2.1 Degree of student participation in compulsory forum (CF)

In the CF, the length of discussion threads under the various topics varied. The longest discussion thread was made up of 24 student contributions (Nurses: 19; AHPs: 5). The Shortest discussion thread was made up of 2 contributions (Nurses: 1; AHPs: 1 or Nurses: 2). Discussion threads which had more than 10 student contributions were rare. Discussion threads comprised 3 messages were the most commonly occurring type (15 counts). Following this type of discussion thread which was common, those which comprised 4 messages (13 counts) and 7 messages (12 counts) were also commonly seen in the CF.

In the CF, co-participation rate from nurses and AHPs varied. AHPs were generally seen to have contributed inactively whilst nurses appeared to be doing the direct opposite. Nevertheless, there were 3 occasions when nurses were also seen to be just as inactive in participation; these were occasions when the discussion threads were initiated by the AHPs, that the AHPs were seen to be participating in discussion without any nurses joining in the discussion. While online participation by one homogenous group of professionals in an entire discussion thread was seen amongst the AHPs, it was also evidenced amongst the nurses. Indeed, online participation by a homogenous group of nurses was more commonly seen. There were 20 discussion threads in which nurses were observed to be participating in discussion without the AHPs (compared to only 3 discussion threads which had 0% participation rate from nurses). Most of these discussion threads that had 100% participation rate from nurses were concentrated in the topic areas in week 3 and 5. At this stage of the analysis, the observation seemed to suggest that whilst many of the discussion threads initiated by the AHPs were accessible to nurses, nurses' messages were on the other hand not accessible to the AHPs.

Besides these observations, for all remaining discussion threads; there was less than 30 percent participation rate from AHPs in 25 discussion threads and 30 percent or more participation rate from AHPs in 34 discussion threads. Indeed, many of the latter type of discussion threads which had a higher co-participation rate between the AHPs and nurses was found in week 4, when a requirement was imposed by the e-moderator that all students were expected to create an MBPP for peers to respond. This in effect, increased students' participation rate in general and particularly those of the AHPs. Otherwise, in the entire CF, other than week 12 towards the end of the module, co-participation by nurses and AHPs was not frequently seen, and certainly not seen across all discussion threads (Table 4.6.1 on page 156).

In addition, what was also interesting in the CF was, on 5 other occasions when the SIPPs were produced by nurses, these parent postings were seen to have not been able to generate any responses not only from the AHPs but also, from the nurses. This observation suggested that, discussion initiated by nurses were not only very often inaccessible to the AHPs but it was occasionally inaccessible to nurses as well.

4.3.3.2.2 Degree of student participation in non-compulsory forum (NCF)

In the NCF, the length of discussion threads under the various topics also varied as in the case of the CF. The longest discussion thread was made up of 16 student contributions. This was found in 'Ground rules' (Nurses: 14; AHPs: 2), the next longest discussion thread observed, comprised 15 student contributions. There were two such occasions, one of which was found in 'Ground rules' (Nurses: 14; AHPs: 1) and the other was found in 'Reflections so far' (Nurses 11; AHPs: 4).

Just as in the case of CF, the shortest discussion thread was also made up of 2 contributions [Nurses: 1; Moderator: 1 (5counts) and occasionally Nurses: 2 (6 counts) and AHPs: 2 (1 count)]. Such short discussion threads were commonly found in 'M's cyber office' whereby individual concerns about the module were frequently raised and

answered by the e-moderator or a peer. Otherwise, in the NCF, discussion threads comprised 4 messages were the most commonly occurring (7 counts). The next most commonly occurring types of discussion threads were those comprised 6 messages (6 counts) and 3 messages (5 counts). In the NCF, there were only 3 discussion threads which comprised 100% participation rate from the AHPs and only 12 discussion threads which comprised 100% participation rate from nurses. Similarly, there were a few occasions (2 counts) where a SIPP was produced by a nurse, that it was not able to generate any responses from the AHPs as well as nurses.

From the above observation, it appeared that discussion initiated by nurses was more accessible to the AHPs and nurses in the NCF compared to that as seen in the CF. Nevertheless, for all remaining discussion threads; less than 30 percent participation rate from AHPs was seen in 13 discussion threads, and 30 percent or more participation rate from AHPs were seen in 6 discussion threads (Table 4.6.2 on page 156). Certainly this observation to a certain extent reinforced the impression about the type of co-participation by nurses and AHPs as observed in the CF; discussion initiated by nurses generally appeared to be inaccessible to the AHPs, albeit its lower occurrences found in the NCF. In addition, there were on 2 occasions where a SIPP from a nurse in 'Reflections so far' did not manage to generate any response from any peers, including the nurses. In this light, in the NCF, it was also nurses' messages and not the AHPs' that appeared to be inaccessible to anyone, including nurses.

Table 4.6 Types of discussion threads (y-axis) in the various topic areas (x-axis)

Table 4.6.1 Types of discussion threads (y-axis) in the various topic areas (x-axis) in CF

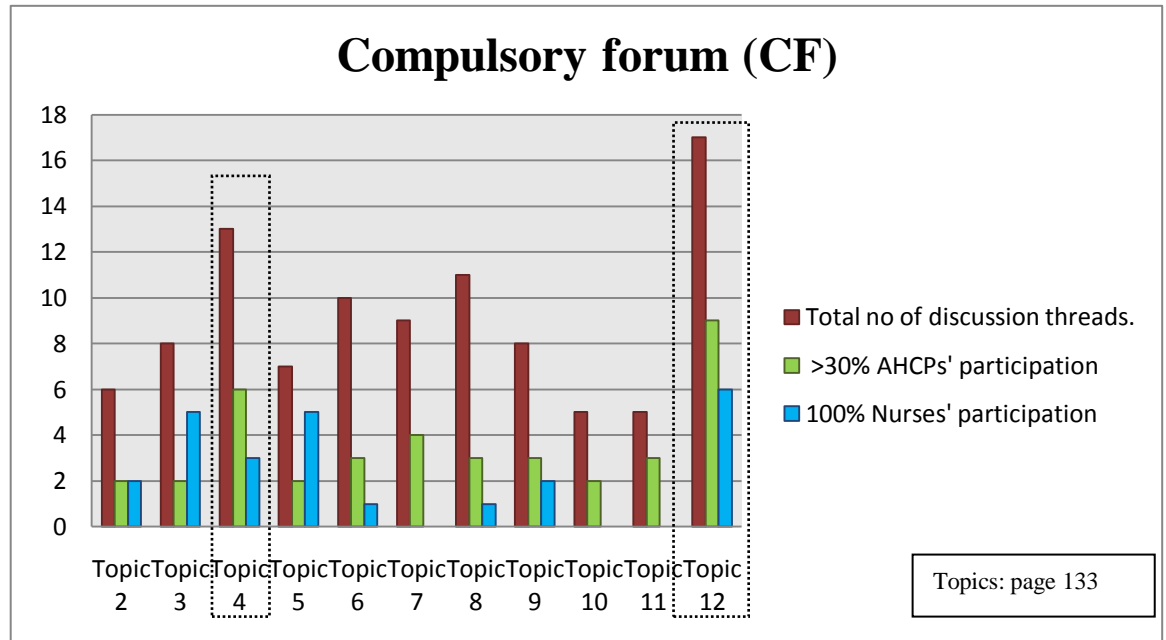
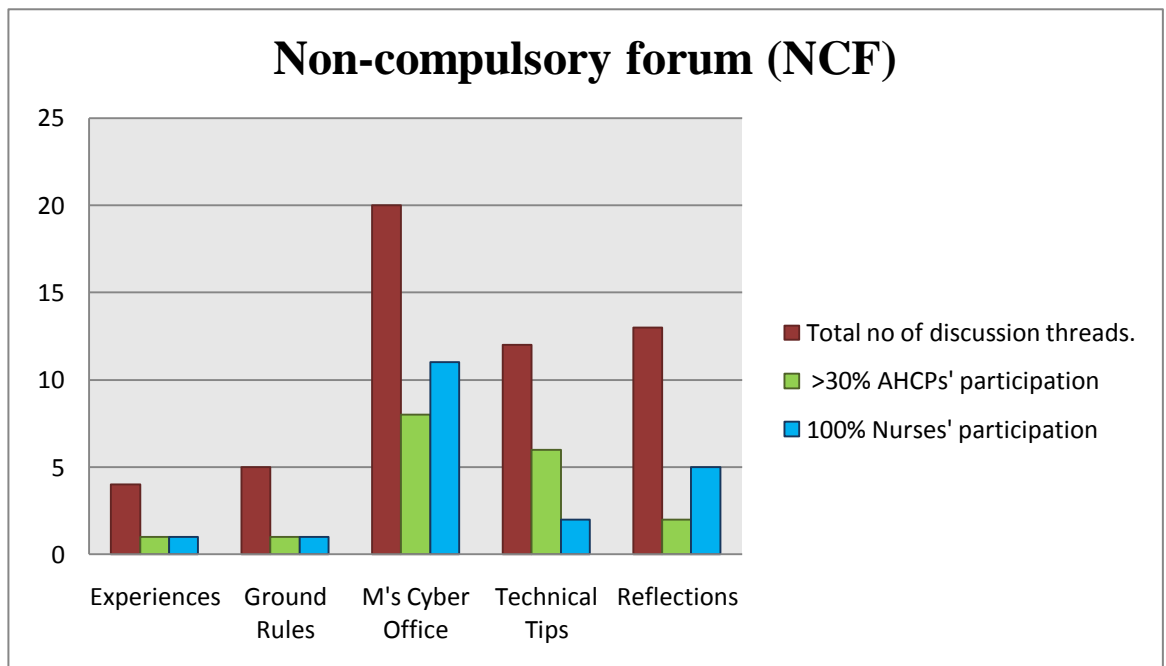


Table 4.6.2 Types of discussion threads (y-axis) in the various topic areas (x-axis) in NCF



4.4 Critical remarks of quantitative findings

The quantitative analysis provided some crucial evidence of the interactional information of student participation in IPOL. From the initial descriptive analysis of frequencies and lengths of contributions, the variability of contributions appeared to be spread amongst individual students with no regard to their professional identity. However, through further analysis, nurses appeared to be generally more active in participating than the AHPs; nurses tended to contribute more often with longer messages.

Nevertheless, there were situations when AHPs were just as active in online discussion as nurses. However, as evidenced from the analysis, these happened more often in the CF where formal learning took place. In this regard, active participation of AHPs appeared to be in situations when student participation was imposed as a requirement in the module. Overall, the occurrences of high contribution rate from AHPs in both forums were scarce, and active participation from AHPs seemed to have been concentrated in a few discussion threads where the AHPs owned the MBPPs and SIPPs. This had even resulted in the production of 5 discussion threads that had a 100% participation rate from the AHPs. Certainly, there were very few occasions when active participation of AHPs were present in discussion threads started by the nurses. Hence, interactions for collaborative IPOL between the nurses and AHPs were not present in all discussion threads in CF and NCF, and were therefore scarce in the entire forum.

Similarly, there were occasions when nurses were also found to be less active in participating just like the AHPs. This observation was also made in some discussion threads where the SIPPs were created by nurses. However, despite this observation, active participation was still predominantly seen amongst nurses particularly in the CF, where many discussion threads even comprised 100% nurses' participation rate.

In this conference, nurses were not only found to have accounted for the higher incidences of responses made to on-going discussions, they were also found to have accounted for the high number of MBPPs/SIPPs in the conference. Nurses generally appeared to be more inclined to start new threaded topics for discussions. However, as evidenced in this study, nurses were not only inclined to start new threads for discussion, they were also inclined to create MBPPs in the presence of an establishing discussion thread based on a MBPP previously contributed by an AHP. As such, domination of discussion by nurses was likely to be perceived.

As to whether this had contoured the subsequent discursive online behavior was not clear, however, as evidenced so far, whilst only a handful of the SIPPs created by nurses did not receive any responses, many nurses' MBPPs /SIPPs were co-participated by the two groups of professionals, albeit many of which were in topic areas where a requirement for online participation. In this light, the interactions in the conference reflected the star-typed interaction in Zhu's (2006) study, whereby discussions were mostly centralized with only one central point. In the case where nurses' MBPPs and SIPPs could generate responses, nurses as a professional group appeared to be that central point of discussion. By being more able to create MBPPs/SIPPs which had the ability to a certain extent to establish a discussion thread, nurses were obviously more in control of the agenda and direction of discussion. In this regard, active participation was not only skewed towards nurses, but the feeling of nurses' domination, if was introduced in the process of creating MBPPs in the presence of AHPs' MBPPs, it could easily be magnified. If that was the case, these findings supported those in previous work in which domination in discussion was commonly reported by students (Bacigalupo et al., 2001; Becker et al., 2000; Juntunen & Heikkinen, 2004; Lund et al., 2002) in interprofessional learning (IPL) situations.

The fact that these observations were more pronounced in the CF where formal learning was to occur, the issue could easily present itself as a barrier to effective IPOL, if not a grave problem of effective IPOL. However, before any conclusion is made about student experience from the variability in participation rate and interactive patterns, the causes of such variability remained to be explored. As evidenced from the quantitative analysis, unequal participation varied in different discussion threads amongst different students, and emerged from the variability of participation were 4 distinct types of discussion threads as generated by the MBPPs/SIPPs; discussion threads were of the following composition:

- i. 100% participation rate from AHP and 0% participation rate from nurses;
- ii. 100% participation rate from nurses and 0% participation rate from AHPs;
- iii. less than 30% participation rate from AHPs
- iv. 30% and more than 30% participation rate from AHPs

As discussed in chapter 1, this study aims to explore the effectiveness of IPOL which involved nurses, with a focus on the discursive behaviours of nurses in the conference on learning. In order to determine the effects of nurses' language use on IPOL, any issues in question are addressed in relation of connectedness measures to nursing discourse. Thus, only discussion threads that had contributions from nurses were relevant data source for CDA. For this reason, other than the first type of discussion threads which comprise 100% participation rate from AHPs, all discussion threads were selected to serve as a data pool from which the specimen of discourse data for CDA was extracted. Hence in addition to the 99 messages from e-moderator, 784 messages from students (CF: 560; NCF: 224) were selected for CDA.

4.5 Conclusion

The initial structural and interactional patterns of online discussions were derived from the descriptive statistical analysis. These distinctive patterns of online discursive behaviour suggested skewed participation amongst the nurses and AHPs. Although activity varied amongst individual students, nurses as a whole were generally more active in online participation compared to the AHPs. The quantitative analysis had also revealed some interesting findings on the online discursive behavior; whilst there was evidence of no interactions between nurses and AHPs in some discussion threads, there were some indications of domination from nurses in the conference.

Based on a quantitative analysis of the conference data, 4 distinct types of discussion threads had emerged. The identified exchanges in the 4 discussion threads are useful information for the selection of relevant messages as discourse data. Based on these quantitative findings, the texts were selected for the second time. This resulted in an exclusion of some texts for CDA. Texts excluded for CDA were those that made up the discussion threads generated by MBPPs and/or SIPP produced by the AHPs that had a zero percent participation rate from nurses.

In essence, the specimen discourse data was based on messages taken from the relevant three types of discussion threads and hence, it included texts from all discussion threads which had nurses' participation. The findings of which are reported in relation to the structural and interactional elements of the texts in the next stage of analysis which determined the quality of the interrelationships and 'exchange relations'. These are reported with illustrative examples in the next chapter to make explicit the analytic procedure, in an attempt to answer the other four established research questions.

Chapter 5: Critical Discourse Analysis and Findings

5.1 Introduction to the chapter

In this study, the texts for critical discourse analysis (CDA) were not limited to the parent postings originally contributed as e-moderator based parent postings (MBPPs) or self-initiated parent postings (SIPPs), but were extended to include all other messages as responses of the nurses and the allied healthcare professionals (AHPs). In other words, texts posted in response to the MBPPs and SIPPs as a result of the ongoing interactions were also analysed. This measure was employed based on the assumption that CDA required the examination of the roles of text in relation to their social structures. Hence, the measure was strategically used to determine the recipients' perspectives of the parent postings and chains of text. It is employed in the hope that through the analysis, contributions made by the nurses and the AHPs in response to the earlier contributions were analysed for the social relations and structures that influenced and/or were influenced by the online conference discourse. In this way, effects of the text (discourse) on collaborative learning were determined.

In this second stage of the analysis which involved CDA, 'NVivo version 8', a software package for qualitative analysis was used. This software package was used to facilitate transcript coding and analysis for interactional patterns only. The interactional features which are reflected in the CDA of sentence types found within the texts and the linguistic strategies that the selected texts used to construct a particular way of learning were analysed manually. Findings based on the 3 distinctive types of discussion threads derived from the quantitative analysis are presented in the form of the analytic themes in accordance to the 4 research questions in this chapter. However, before this discussion, the next section explains in detail how the texts as data were managed as discourse data for CDA.

5.2 Critical discourse analysis (CDA) – analytic procedure

Texts from the 3 relevant discussion threads as specified in chapter 4 were first identified and separated from the original pool of sample data and imported in verbatim into NVivo version 8 as free nodes for coding and analysis. The analytic procedure as described in chapter 3 was carried out manually for each text type. Each selected text from the 3 relevant discussion threads based on the quantitative analysis were analysed based on a ‘three-dimensional’ analytical framework within Fairclough’s (2003) CDA framework for studying language in relation to power and ideology (Figure IV on page127). Based on Fairclough’s (1995; 2001) three dimensions of interactional analysis within CDA, namely textual, interdiscursive and social analyses, the analysis of each text was conducted alongside the analysis of the online discourse practice (processes of text production, distribution & consumption in the conference) and analysis of discursive events as social practices in relation to nursing practice at large.

The analysis was conducted with the aim to map the three separate forms of analysis onto one another to address the last four research questions as follows:

- i What are the contents and forms of texts produced by nurses in the conference?
- ii Are there any codes or technical vocabularies in nursing discourse?
- iii Is there any evidence of a dominating discourse in nurses-nurses and nurses-AHPs interactions in the constructivist learning environment?
- iv Is there any evidence of attempts being made by nurses to make learning accessible/inaccessible to others?

Despite having the conference messages subjected to the necessary selection processes, the body of data remained large. For this reason, selected samples were presented in this chapter. Presenting the analysis using a summary of the data was reasonable enough to ensure reliability of the study. This was particularly so in cases

when the theoretical approach had permitted the analysis of language use to be conducted out of the original context in which it was produced (Taylor, 2001). In the case of the present study, CDA was used to gain an understanding of the power relations and ideological process (Fairclough, 1989) that were beyond the local context of learning. Hence, a summary on a selected few data would be sufficient in demonstrating how the findings were derived.

Nevertheless, this approach may still raise concerns about reliability. Hence, despite the fact that interpretations of the findings were derived from the use of Fairclough's (1995) CDA framework, which ensured a systematic approach to analysis, the findings were checked against the participants' own interpretation of the texts. In addition to this strategic measure, the interpretations of these findings were also made explicit in this chapter as illustrative examples.

Therefore, the presenting of the findings in this chapter involved the working through a few illustrative examples in full. These two conventions, which are commonly followed in conversation analysis and are increasingly seen in discourse analytic research in other traditions to operate as a form of reliability were employed in the present study for the same purpose. The illustrative examples which had been imported in verbatim for analysis were broken down into lines and numbered accordingly for easy referencing, and discussion is based on the three types of discussion threads established:

- i. comprised 100% participation rate from nurses and 0% participation rate from AHPs;
- ii. comprised less than 30% participation rate from AHPs
- iii. comprised 30% or more participation rate from AHPs

5.3 Analysis and findings based on critical discourse analysis

5.3.1 Discussion thread that comprised 100% participation rate from nurses and 0% participation rate from allied healthcare professionals (AHPs)

5.3.1.1 Second research question: What are the contents and forms of texts produced by nurses in the conference?

In the following extract of a discussion thread, Student 5 responded to the week 3 topic, 'A future of e-learning in the NHS (National Health Service?)' (Table 5.1 on page 166). This extract is one typical example of the many e-moderator based parent postings (MBPPs) created by nurses in the compulsory forum (CF), which attracted 100% nurse participation but 0% participation rate from the AHPs. The local context in which this message was posted, was one in which Student 5 had contributed her opinions about the state of the NHS and other governmental organizations, in readiness for e-learning. The analytic point of interest here is the way in which Student 5 produced her view about how prepared the NHS was for e-learning, and how the social actions in which this description were oriented were with reference to a social context in healthcare, or perhaps more accurately said, a social context in nursing practice.

Based on interdiscursive analysis of interaction, the text is a typical MBPP and Student 5 had posted it with the intention to start a threaded discussion. Despite its intention, this text lacks the dialogical element in the following respect. Textual analysis reveals that this text has a word count of 209 which is organised into just one paragraph. In this regard, it reflects more a written text rather than a conversational type of interaction. This conclusion is based on the fact that conversation interactions follow the 'next turn proof procedure', they are therefore usually short (Hutchby & Wooffitt, 1998).

In addition to the length, another characteristic feature of this text which renders it to resemble a written text is its heavy use of lexical items as content words compared

to its lesser use of grammatical items as functioning words (Halliday, 1985). Halliday (1985) once compared conversational texts and written texts, and concluded that the two differs by their lexical density, the latter being measured by the ratio of lexical contents and grammatical items. The ratio of lexical contents to grammatical items is believed to be high in written texts and low in conversational texts (Halliday, 1985). For illustrative purpose, take line 8 as an example. In this line there are 40 words, and within it, there is a high usage of lexical contents in the message. Of a total 40 running words, only 'For', 'to' 'the', 'that' 'are', 'not', 'on', 'a', 'which', 'and' are grammatical items. The remaining 23 words are lexical items. The composition of this text gives rise to a lexical density of 23 out of 40, which is 57.5 per cent. This high value in percentage indicates high lexical density. The latter is a characteristic feature of written text (Halliday, 1985).

Any form of written text is said to be non-dialogical as it is meant for one way communication (Fairclough, 2003). Another feature which characterises this message more as a written text and hence rendering it non-dialogical is the linguistic features of the text. From table 5.1 (page 166), apparently, other than some short phrases in Lines 3, 4, 5 and 10, any linguistic features commonly present in social conversational interactions which comprise informal spoken English are not present in the text. This renders the text which already resembles a written text to be even more non-dialogical.

Another aspect to which the text is not dialogical, and appears more a one-way communication is its genre. An interdiscursivity analysis reveals that the text includes elements, all of which might be expected in a written form of nursing documentation of patient care. Evidence of this is provided in the discussion of codes and technical vocabularies in the next section.

Table 5.1 Illustrative example 1

Extract 1/Data Set 1/Student 5
<p>Current Forum: Week 3 Activity 1 'A future of elearning in the NHS?'</p> <p>Date: Thu Sep 30, 2004 4:52 am</p> <p>Author: Student 5</p> <p>Subject: Re: Elearning and the NHS</p> <p>-----</p> <p>Line 1: Hi e-M</p> <p>Line 2: Judging from the state of the computer's [sic] in our place and the limited access to them,</p> <p>Line 3: NO I've got a bit of a bee in my bonnet about this,</p> <p>Line 4: as it seems to me that the Government, and large organisations are very quick to employ all sorts of committees, research groups etc</p> <p>Line 5: to produce all of these wonderful plans and then implement them piecemeal,</p> <p>Line 6: often without sufficient resources, then wonder why they're not working!</p> <p>Line 7: If we attended traditional study days we would expect a reasonably comfortable working environment & equipment to aid the presentation.</p> <p>Line 8: For e.learning to take place within the workplace we need access to computer's that work, computers that are not required on a permanent basis for clerical work, a quiet environment within which to work and access to well-designed educational software.</p> <p>Line 9: As we're becoming to be aware, e.learning is not simply a matter of putting Existing educational material into cyberspace an environment that is conducive to Learning needs to be created. I think it may be a good idea for the NHS to get the infrastructure in place before implementing the strategy across the whole workforce.</p> <p>Line10: I think also that there may be a tendency for Health Authorities to see e.learning as a 'cheap' option'.</p>

Grammatical items:

Overall, the text has a promotional genre, its aim appears to be one suggesting the type of attitude NHS and the government should have and the things they needed to put in place in order for e-learning to occur. The promotional genre is evidenced in the assumptions contained in Line 1 “*judging from the state of the computer's in our place...*”, which was used to assume a singular perspective that applied to all situations in which NHS and the government were not ready for e-learning. Additional promotional efforts are seen in the way the pronoun ‘we’ are used in Lines 7 and 8 which assume that everyone who was affected by the current situation would agree with the creator of the text. Particularly in Line 9, when ‘we’ was used to refer to those who had the knowledge of e-learning and understood the effects of e-learning in Lines 7 and 8 where ‘we’ was used to refer to nurses working in the wards, it is obvious that the unquestioning compliance to her proposal plan was not only assumed to be obtained from her peers, but presumably was also from those who were nurses, particularly those who had the knowledge of the effects of governmental strategies at ward level.

Throughout the entire text, there is no use of any modalization term to imply that her peers might have differing opinions. In addition, the topic in question was represented as being the domain of the experts, and knowing means knowing what Student 5, a clinical nurse knew. In the text, there is no space opened up for any dialogue. This made the challenging of any views contributed by Student 5 improbable, if not impossible. This was especially so for any ‘outsiders’ (nurses and/or non-nursing HCPs) who did not have any ward experience.

5.3.1.2 Third research question: Are there any codes or technical vocabularies in nursing discourse?

This message is typical of all other MBPPs and self-initiated parent postings (SIPPs) contributed by nurses in the CF. It is lengthy and detailed. Based on textual analysis, there is no code or technical vocabulary that is specific to nursing found in the text, except for ‘study days’ in Line 7. ‘Study days’ is a term commonly used by nurses to refer to protected time for participating in formal classroom learning. Other healthcare professionals (HCPs) might have understood it better as study leave. Hence even if the term ‘study days’ may not have been a term specifically ‘owned’ by nurses, it is a term commonly used by nurses and not the AHPs.

By continuing with Fairclough’s (1995) social analysis of this text, the analysis revealed that the message was following the structure of a four-staged problem solving approach in nursing. The four-staged approach to care which guided nurses in the delivery of patient care had been recognised and acknowledged as a useful working tool for nurses since its introduction to nursing practice in the 1970s. The concept of this approach was first borrowed from the discipline of business (Heath, 1995) and introduced by Yura and Walsh (1973) as an alternative to the medical model of patient care for nurses. The approach was advocated to be used in conjunction with nursing theories and/or nursing models, for it was believed that their combined use would achieve holistic patient-centered care. Since then, the problem solving approach to care has been referred as the nursing process, and is unique to nursing due to its use of the standardized nursing language (Hamilton & Manias, 2006).

Coming back to the text; the form of standardized nursing language in which there is a consistent use of various set terms for symptoms, problems and nursing activities (Hamilton & Manias, 2006) in the four stages of assessment, planning, implementation and evaluation of the nursing process are all found in the text in their

sequential order (Table 5.1.1 on pg 170). An assessment was first made in Line 2 about the current situation of e-learning in the students' work place. The 'problem' was then identified in Line 4 in which the government was 'diagnosed' to have been too quick in jumping on the band wagon of implementing things, when they were not even ready to do so. As in the case of diagnosing a patient's problem which is often complex due to the fact that a patient problems are usually multifaceted, nurses are always encouraged to assess the problem by considering other influencing factors, so that the actual patient problems can be pinned down accurately for effective treatment. This approach was adopted in the constructing of this text and this is evidenced in Line 5, where a reason (an influencing factor) for the problem is provided. As a result, more resultant complicated issues as secondary problems are being identified in Line 6. Based on these identified problems, a recommendation in Line 9 was then made to resolve the problem. This reflected the stage of implementation in the four-staged approach to care, which in turn was based on the identified goals being set at the stage of planning. The latter is found in Lines 7 and 8, where the ideals of what it will be like in the absence of the problems are listed. All stages of the nursing process are explicitly reflected in the text except the last stage of evaluation, at which a proposed plan is supposed to be in place to determine how well the proposed plan has worked. This observation is not surprising. Based on my personal experience, nurses in clinical practice often struggled with the completion of this final stage and would therefore choose to leave out this stage. Hence more often than not, the nursing process is seen to finish at the stage of implementation. Nevertheless, there are still many other nurses, who will mistakably complete this stage with detailed information on patient's condition as affected by the plan of care. The same 'mistake' was committed here. It is evidenced, that a declaration of a potential reason for the 'proposed plan' to fail was provided in just the same way as evaluation would have been done in practice.

Table 5.1.1 Text in alignment with the sequential stages of the nursing process

Lines	Texts (Extract 1/Data Set 1/Student 5)	Stages of the Nursing Process
1:	Hi e-M	
2:	Judging from the state of the computer's in our place and the limited access to them,	<p>Assessment Stage</p> <p>Sign and symptoms of actual problem to be gathered as evidence to diagnose a problem</p>
3:	NO. I've got a bit of a bee in my bonnet about this,	
4:	as it seems to me that the Government, and large organisations are very quick to employ all sorts of committees, research groups etc	
5:	to produce all of these wonderful plans and then implement them piecemeal,	<p>Assessment Stage</p> <p>Influencing factors to problems to be gathered for strategising ways to solve the identified problems.</p>
6:	often without sufficient resources, then wonder why they're not working!	
7:	If we attended traditional study days we would expect a reasonably comfortable working environment & equipment to aid the presentation.	
8:	For e.learning to take place within the workplace we need access to computer's that work, computers that are not required on a permanent basis for clerical work, a quiet environment within which to work and access to well-designed educational software.	<p>Planning Stage</p> <p>Goals setting: lists of examples of what were likely to achieve when the problems were solved</p>
9:	As we're becoming to be aware, e.learning is not simply a matter of putting existing educational material into cyberspace an environment that is conducive to learning needs to be created. I think it may be a good idea for the NHS to get the infrastructure in place before implementing the strategy across the whole workforce.	<p>Implementing Stage</p> <p>The practical steps to be taken to achieve the goals, substantiated with logical reasoning, which would be generally agreed by people; in this case knowledgeable ones</p>
10:	I think also that there may be a tendency for Health Authorities to see e.learning as a 'cheap' option'.	<p>Evaluation Stage</p> <p>A plan to determine if the implementation plan has/has not worked: In this case, provided reasons as to why the plan will fail</p>

5.3.1.3 Fourth research question: Is there any evidence of a dominating discourse in nurses-nurses and nurses-AHPs interactions in the constructivist learning environment?

Based on all three elements of interactional analysis within Fairclough's critical discourse analysis, there was another evidence to suggest that this text is a one way communication as in the nursing documentation of patient care is the absence of any set of argument in the text. Textual analysis reveals that there is no sentence adverbial or conjunction to connect any assertions being made. Although at one point, what appears to be an argument (in Line 4), which suggested that the government was quick to instill an e-learning culture in healthcare, it was done with an effect to assert the point being made about NHS not being ready for e-learning. The assertion of the point being made became obvious when the declarative sentence in Line 4 continues into Line 5, where the view was elaborated and asserted. It is obvious from the text that the debate about the readiness of the NHS or the government for e-learning had ended even before it started.

In view of the great resemblance between the texts and nursing care plans, it is important for me to focus on social analysis and digress to look at nursing care plans. This third element of the interactional analysis was what Fairclough (1995) saw as important for explaining the hidden ideological and social elements which influenced text production. In other words, by engaging in social analysis, knowledge of how these care plans operate in clinical practice will help one to understand why there is dominating discourse in this text. In all patients' nursing records, any *patient problems* managed by the nursing team and the AHPs are called the nursing problems. The latter are determined by the nursing diagnoses, which are derived from the unique nursing knowledge and based on nursing expertise. Nursing problems are only legitimised by the primary nurses, for they are the primary carers who have gone through a holistic

approach in the nursing process to work out the patient-centered problem and to have developed the nursing care plans. Although these resultant nursing care plans are meant to support a multidisciplinary approach to care (Crisp et al., 2005), the purpose of care planning was decided by the nurses. Moreover, the implementation plan drawn up by the primary nurses is a blueprint for which patient care delivered by all other nurses and AHPs is based. In other words, all care implemented by any other nurses or AHPs would be stipulated by the plan of care as designed by the primary nurses. It is therefore apparent that care plans are where nurses as a dominant source of governmentality and social regulation of patients' activities of daily living even if they are implicated by medicine (Hyde et al., 2006). However, as discussed earlier, nursing care plans are not only nurses' judgment of what normal activities are and are not for the patients (Hyde et al., 2006), they are also meant for one way communication rather than a two-way dialogical communication of nurses' judgment with the AHPs.

In this case, when the construction of the text resulted in it sharing identical genres as a nursing care plan, Student 5 was constructed as someone who was in the position to assess and judge the current e-learning situation within NHS. As in the case of care planning, primary nurses were positioned as the experts, who would work out the nursing problems, and ultimately diagnose the patient. The plan of care which primary nurses drew up would not be corrected by anyone, for it had been assumed that no one would have a more holistic view of the patient other than the primary nurses. In the same way, the assumptions made in the genre of this text was, the issues being identified as problems, the judgment about NHS and the government being made and the list of proposals for which these organisations could adopt for e-learning to be successful within healthcare, were the authoritative 'expert's' opinions, which were not to be contested.

5.3.1.4 Fifth research question: Is there any evidence of attempts being made by nurses to make learning accessible/inaccessible to others?

Based on text analysis, this message is not seen to have employed any use of coordinating or subordinating conjunctions which are required for it to be dialogical. Without any of these conjunctions, this text is not engaging with the readers. Indeed when interdiscursive analysis was conducted, there is no evidence to suggest that the text was trying to convince the readers, but only evidence to suggest the setting up of a non-dialogical divide between Student 5 who had made these assertions and her peers to whom the text was addressed.

It appeared that it was already decided in the discussion that both NHS and the government were not ready for e-learning, and that the issue about the readiness of NHS or the government was not opened for discussion, just as in the case of any nursing diagnoses and the plan of care in nursing documentations. In the same way as required of them whilst working with any nursing documentation of care created by the primary nurses in clinical practice, all other participants including the nurses and the AHPs were expected to read and digest the examples listed as evidence which suggested that the NHS and the government were not ready for e-learning,. This is found in an assumption contained in Line 9 “*As we're becoming to be aware, e.learning is...*” which assumed that those who have the knowledge (about what was highlighted in the current text), would agree with its creator instead of challenging her. Hence, those who want to be seen as having the ‘expert’ knowledge were unlikely to cast an opinion which suggested otherwise.

Apparently, the attempt to adapt a discourse in nursing, whereby an alternative approach to the medical model of care, which was well adopted in clinical practice since the 1970s, had denied student access to discussing and learning. To determine further the effects of such an attempt in nursing discourse on learning situations, the analysis

was continued with the investigation of the patterns of interactions. Notice in figure V (page 174), it is demonstrated that there were only 3 responses generated in this discussion thread, and all of which were contributed by nursing students. In addition, the interactions within this discussion thread were not intense, responses were directed at student 5 alone, and there was no communication established between the 3 respondents. This pattern of interaction was frequently observed in both conferences, where a MBPP or a SIPP was created by a nursing student. Those who responded to the parent postings would direct their responses to the creator of the MBPP/SIPP but not others who at the same time, had also responded to the MBPP/SIPP.

There is another feature of this discussion thread which is commonly found in others in the CF; it is the absence of communication established afterwards. Apparently, Student 5 did not return a response to any of her respondents. This indicated that the issues being discussed were not persisted. For the purpose of exploring the reasons behind these observations, the response from Student 12, which was a typical response of the other 2 in this thread, and also a typical response to a MBPP created by nurses in the CF, was selected as an illustrative example.

Figure V Interaction pattern generated: Extract 1/Data Set 1/Student 5

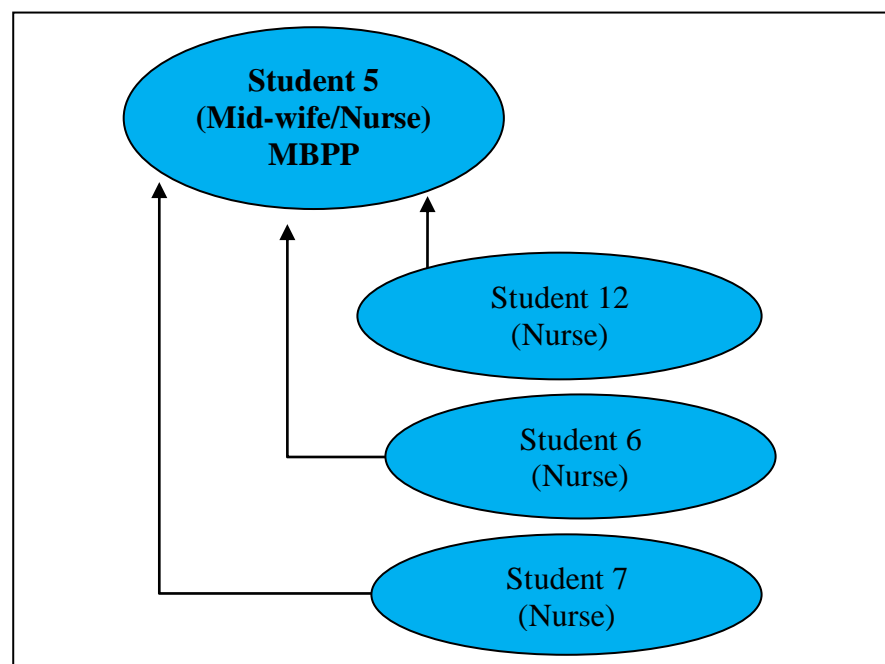


Table 5.1.2 Illustrative example 2

Extract 2/Data Set 1/Student 6	
<p>Current Forum: Week 3 Activity 1 'A future of elearning in the NHS?'</p> <p>Date: Thu Sep 30, 2004 9:28 am</p> <p>Author: Student 6</p> <p>Subject: Re: Elearning and the NHS</p>	
<p>Line 1: Hi Student5,</p> <p>Line 2: I totally agree with you having left the NHS about a year ago.</p> <p>Line 3: I too had trouble with the equipment. I don't know if its the same for you but the available computers are situated at the nurses station. There are mainly for clerical staff.</p> <p>Line 4: All ward staff were given and e-mail address which is constantly full because they never get time to read them. Also there are never encouraged to use the computer.</p> <p>Line 5: Patients would make comments about them always being on the computer and not fully understand what they were doing (someone else also found this).</p> <p>Line 6: Politically although this is being driven by NHSU, WDC etc the realization and achievement of the are yet to be established by the ward staff.</p> <p>Line 7: From discussion many staff do not have the skills to access e-learning or time and resources. The culture of the wards does not led its self to this as study time and courses are the first to go in times of work pressure.</p> <p>Line 8: Although governmental white papers support LLL, and education they may be unable to supply the finances and resources to do this. Motivated people will over come this by providing their won time and money less motivated people may sit on the fence and wait till someone find what's needed.</p> <p>Line 9: I have experienced this myself as it taken me two week to allocate two hours to this module.</p> <p>Line 10: As e-learning is open to do when time is free one does not always set time free and we have had experiences of this in the work place.</p>	<p>Codes</p> <div style="border: 1px solid black; border-radius: 50%; width: 150px; height: 60px; margin: 10px auto; display: flex; align-items: center; justify-content: center;"> <p>Reference to self/others</p> </div> <div style="border: 1px solid black; width: 150px; height: 100px; margin: 10px auto; display: flex; align-items: center; justify-content: center;"> <p>Evidence provided to support the established problem</p> </div> <div style="border: 1px solid black; width: 150px; height: 60px; margin: 10px auto; transform: rotate(-15deg); display: flex; align-items: center; justify-content: center;"> <p>Codes technical vocabularies</p> </div>

Textual analysis reveals that this text shares many similarities with its MBPP (Table 5.1.2 on page 175). It is lengthy and has a word count of 262 words. As explained by Bhatia (2004), it is a written form of language which is inevitably longer because many concepts are usually covered. This might not have been the case in this text in which not many concepts are addressed. However, being lengthy which is a characteristic feature of any written texts which was meant for one-way communication (Fairclough, 2003), the dialogical element would certainly have been removed from the text.

Further interdiscursive analysis reveals an extensive use of declarative sentences. The opening statement in Line 2 "*I totally agree with you...*" declared the purpose of this posting, of which was indeed fulfilled in the rest of the text. Due to the presence of many declarative sentences which had been constructed without the use of any conjunction, this had resulted in the text to fail further in presenting itself as being dialogical.

When interdiscursive analysis was conducted in conjunction with social analysis, a substantial amount of evidence was found in this text to illustrate the problem identified in the MBPP. In this text, many examples were given to support the evidence of MBPP. Examples were personal based and included references either to one self or to others. The latter implicitly indicated other nurses. This rhetorical move strengthened its support of the initial problems identified in the MBPP. This was evidenced when Student 12, as well as all other nurses including those who had not been working in the clinical settings (this also implied all nurses in this conference), were constructed as being able to testify to the identified problems produced in the MBPP. In this way, the views put forward by Student 5 were not only remained unchallenged, on the contrary, they were strongly supported, for now, the problem raised in the MBPP could presumably be identified by even a larger pool of nurses.

By doing so, the text had also confirmed the position of Student 5 as an expert, who was knowledgeable enough to judge the state of NHS. Not only that her views which were put forward in the MBPP were not contested, they were reinforced in this text as the truth, without it being modified. Any invitation for negotiation on the views was not present. Just as in the case of care planning, other nurses who came along at a later stage would only build on the existing care plan with additional patient information that had been gathered. They were not likely to make any alterations to the original nursing problems which had been diagnosed by the primary nurse, who presumably had the expert knowledge, based on the holistic view of patients she held.

Another aspect to which the text is not dialogical is within its assumptions contained in the technical codes and vocabularies in Lines 5 and 8. These lines assumed that all participants knew what these codes were. This is a feature which indicates the failing of Student 12 to acknowledge the presence of those who might not be aware of these codes. The lack in response from Student 5 (including that from the e-moderator) for clarification of these technical terms seems to suggest that these word problems could be matched with prior knowledge of the two nurses (Student 5 and 12) in a context outside of this conference. As such, the dialogical divide created in the MBPP was reinforced in this text; in this discussion, it had separated those who know from those who don't. This further explains why the text itself, did not result in getting any direct response from other participants, including the nurses.

5.3.2 Discussion thread that comprised less than 30% participation rate from AHPs


5.3.2.1 Second research question: What are the contents and forms of text produced by nurses in the conference?


The following extract of a discussion thread, was one in which Student 13 responded to the week 8 topic, 'Blended learning' (Table 5.2 on page 179). This extract is one typical example of the many SIPPs created by nurses, as a diversion of discussion from the ongoing communication. It attracted a maximum of 2 direct responses from the AHPs. The local context in which this message was posted, was one in which Student 13 had used a single-word 'Piolet' as the title to contribute her views on the use of blended approach to teaching and learning. The analytic point of interest here is the way in which Student 5 produced her argument for using blended approach to teaching and learning. Another analytical point of interest is the social actions in which this description oriented; the analysis is with reference to a social context to establish the way this text encouraged peer participation and yet at the same time, limited the context of discussion.

This typical SIPP was posted with the intention to pursue the same topic of blended approach as the original MBPP, but with a different slant. Textual analysis indicates that this text is lengthy with a word count of 350 words. Overall it shares the same characteristic as the previously analysed MBPP, such that it also has a high lexical density. When the lexical items were measured against the total number of running words in Line 1, a high lexical density of 73.3% was obtained. Similarly in Line 5 to 6, the lexical density a high 54.4% is observed. The high lexical density renders the text to resemble more a written text (Halliday, 1985) which is meant for one-way communication (Fairclough, 2003). Besides these characteristic features of written text, this text also resembles the previous MBPP in a way that it lacks the evidence to suggest that it is a reflection of any social conversational interaction.

Table 5.2 Illustrative example 3

Extract 2/Data Set 2/Student 13	
<p>Current Forum: Week 8 - Blended learning Date: Thu Nov 11, 2004 12:41 pm Author: Student 13 Subject: Piolet</p> <p>-----</p>	
<p>(1st para)</p> <p>Line 1: As I am in the fortunate position of having a group of victims (opps!) students</p> <p>Line 2: I thought that I would have a go at using eLearning to test my new knowledge.</p> <p>Line 3: Last week I told them all to access the discussion board to discuss public health issues</p> <p>Line 4: and we had some thought provoking input on the question. Is organ donation a public health issue?</p> <p>Line 5: I noticed that some people were very happy with it and got a lot out of it, some did not access it at all.</p> <p>Line 6: So this week I asked for feed back and found that out of a group of 15, 2 had lost their pass word and had never been able to access Blackboard.</p> <p>Line 7: These students are at the beginning of their third year. As a result of that I had sorted out the problem and the other swore that she 'was going to today'.</p> <p>Line 8: The next three sessions are PBL and I suggested that they use the discussion board to communicate with each other. (Which reminds me I need to set up a file exchange).</p>	
<p>(2nd para)</p> <p>Line 9: From my crude experiment I have observed that a blended learning approach can support the class room learning and develop it as the students have time to reflect and contribute later.</p> <p>Line 10: I have also seen the students support each other in that those who were having difficulty were inundated with offers of help, advise and were even escorted to the computer centre. It helped bonding in the class as a girl in Scunthorpe linked up with a girl in Bridlington to work on the trigger.</p> <p>Line 11: It seems to remove alot of the negatives from both approaches.</p>	
<p>(3rd para)</p> <p>Line 12: If this course had a blended learning approach I think that it would remove some of the negatives from it.</p> <p>Line 13: When reading through some of the messages,</p> <p>Line 14: to me one of the main issues seems to be that people feel that they are not being understould.</p> <p>Line 15: This then leads to frustration / guilt / anger etc and diminishes motivation and concordance.</p> <p>Line 16: So I think a blended learning approach is the way to go.</p>	

Lexical items: 

Grammatical items: 

Textual analysis and interdiscursive analysis reveal that the text is a narrative account in which the different concepts are distinctly organized into 3 separate paragraphs. As mentioned before, this feature by which a few concepts were presented at any one single time is commonly found in written text (Bhatia, 2004) and is often used as a one-way communication. Another aspect to which the text appeared to function as a one-way communication as written texts is its genres. This observation was based on social analysis. Apparently, this text included elements, all of which might be expected to be found in the nursing documentation for adverse clinical incidents. It is important to appreciate that in any incident report, information was holistically structured to address the risk of misinterpretation. This therefore explained why there was some degree of intertextuality and interdiscursivity found in the text. Evidence of this is demonstrated in the discussion of codes and technical vocabularies in the next section.

This text is a typical SIPP. Although the main communicative purpose it served was informative, this text has a promotional genre, with an aim to promote the use of blended approach for teaching and learning. This was done through the assumptions contained in paragraph two, in which it assumed some positive experience from a teacher's perspective when blended learning was introduced; Student 13, a nurse lecturer had used other students from a module she led to assume a singular perspective that applied to all other situations. In the same way, Line 13 and the nouns 'people' and 'they' in Line 14 are used in the same way which assumed that everyone, (all participants in the current conference) who were affected in the same way as Student 13 might have been by the 100% asynchronous learning, would agree with her. The assumption was made obvious in the production of Line 16, where a declarative statement was produced to claim that there was no other means for teaching and learning, except the use of a blended approach.

5.3.2.2 Third research question: Are there any codes or technical vocabularies in nursing discourse?

This message is typical of all other responses contributed by nurses. It is also lengthy and detailed, like all other MBPPs and SIPPs. This reflected the findings gleaned from the statistical analysis, whereby lengthy discussions were more commonly found to be ‘owned’ by nurses. Just as other texts which received no responses from the AHPs, specific codes or technical vocabularies used in nursing were also not found in this text. Still, social analysis reveals that the discourse in the message reflected the genre of yet another form of nursing documentation, the incident report, which was in alignment with any prominent discourse of risk management in business (Table 5.2.1 on page 183).

To move on, social analysis of the function of incident reports needs to be conducted at this point. An incident report is produced in the event when an incident which is out of the ordinary routine has occurred in clinical practice. Its sole purpose is to allow analysis and evaluation of the clinical situation so that future occurrences can be prevented (Dunn, 2003). Hence, an incident report is an administrative document (Dunn, 2003; Goodman, 2002). However, because of the administrative purpose incident reports serve, despite the fact that they are not part of any medical record, they are still linked to patient notes so that requisition for additional specialist treatment and analysis can be made; the latter are of course, unexpected in the routine patient care. As a result of the complexity arising from the purpose of incident reports, the genres in them are therefore multimodal and hybrid. One could expect scientific, political and plain consumer reassurance genres being inextricably and deliberately confounded in incident reports. Evidence of these elements in the current text is discussed in the next section of evidence of dominant discourse in nurses-AHPs interactions.

From the current social analysis, it could be seen that in the same way as an incident report was constructed, a brief narrative description of the incident, consisting of an objective description of the facts, which did not include the writer's judgment (Goodman, 2002) was being produced. This was found in Lines 3 to 8 in the first paragraph. Next, it was the use of quotes from those directly involved: In this case, the students of a module led by Student 13 were used to fill any gaps in the narrative account, so that a more holistic picture of the 'event' could be obtained. This was done in just the same way, in which specific illustrations were provided in incident reporting. Another dimension of which the genres of the text resembled that of a nurse incident report was the distinctive generic element found in Line 1 whereby, the identity of the writer was made explicit in order for readers to understand the relationship of the writer and the 'incident'. Besides these features, there is yet another feature of an incident report found in the text. This is the element of recognised and identified strategies used to correct the identified problems, and it could be located in Line 8, where the introduction of PBL (problem-based learning) and the setting up of 'a file exchange' were mentioned. These proposals were put forward by student 13 as ways to allow one aspect of blended approach learning to take place in order to achieve an overall success in blended approach as one teaching and learning method.

Table 5.2.1 Text in alignment with incident reporting

Line	Texts (Extract 2/Data Set 2/Student 13)	Features of incident reports
1	As I am in the fortunate position of having a group of victims (opps!) students	} State one's position in relation to the incident
2	I thought that I would have a go at using eLearning to test my new knowledge.	
3	<u>Last week</u> I told them all to access the discussion board to discuss public health issues	} Objective description of the incident with objective description of facts; notice that even the "specific time" of the event was provided
4	and we had some thought provoking input on the question. Is organ donation a public health issue?	
5	I noticed that some people were very happy with it and got a lot out of it, some did not access it at all.	
6	<u>So this week</u> I asked for feed back and found that out of a group of 15, 2 had lost their pass word and had never been able to access Blackboard.	
7	These students are at the beginning of their third year. As a result of that I had sorted out the problem and the other swore that she 'was going to today'.	
8	The next three sessions are PBL and I suggested that they use the discussion board to communicate with each other. (Which reminds me I need to set up a file exchange).	
9	From <u>my crude experiment</u> I have observed that a blended learning approach can support the class room learning and develop it as the students have time to reflect and contribute later.	
10	I have also seen the students support each other in that those who were having difficulty were inundated with offers of help, advise and were even escorted to the computer centre. It helped bonding in the class as a girl in Scunthorpe linked up with a girl in Bridlington to work on the trigger.	} use quotes where applicable in un-witnessed events, 'patient states'
11	It seems to remove alot of the negatives from both approaches.	} Recognise and identify programs to correct identified problems
12-16	If this course had a blended learning approach I think that it would remove some of the negatives from it. When reading through some of the messages, to me one of the main issues seems to be that people feel that they are not being understould. This then leads to frustration / guilt / anger etc and diminishes motivation and concordance. So I think a blended learning approach is the way to go.	} Use personal examples to justify one's analysis

5.3.2.3 Fourth research question: Is there any evidence of a dominating discourse in nurses-nurses and nurses-AHPs interactions in the constructivist learning environment?

The evidence of dominating discourse came from the linguistic realisations of this text associating with incident reporting. As discussed in the previous section, an incident report is a positive approach to risk containment and control, including learning from the past errors and reduction of risk, all of which are needed to identify system-related errors and help correct those errors (Dunn, 2003). In incident reporting, the person who documented the incident was expected to have good knowledge of the context in which the incident occurred. On top of this, the person was assumed to know the rules, theories, practices and procedures, and therefore, expected to have a good understanding of their meanings and derivatives in order to judge what were deviant enough to justify for an incident report. In other words, the person making the incident report was expected to be able to judge if the case was reportable (Dunn, 2003; Goodman, 2002). While such high quality and profile was emphasized, nurses were given the responsibility for reporting incidents and writing up incident reports.

Nurses were recognized to play a key role in reducing health care errors, simply because they were acknowledged to be the ones having the clinical and organizational expertise to do so. This recognition of nurses' important role and their ability in fulfilling it, automatically positioned nurses as being superior in terms of clinical and organizational knowledge, than their counterparts - the AHPs. In the same way as in the current text, in the opening statements in Lines 1 and 2, the position as a lecturer with knowledge of e-learning was provided to establish the credentials of the creator of the text.

Other features of dominating discourse in which the ideology of a nurse as an expert is circulated and reproduced (Fairclough, 2003) were exposed through

interactional analysis. The dialogue in this text was structured as a one way communication in a narrative account, which was informative and promotional in nature (Table 5.2.2 on page 186). Much of the narrative account was compressed into the first paragraph, from Lines 3 to 8 and into the second paragraph. A sequential order of the events was also provided, and the processes were made linguistically explicit (e.g. ‘Last week’, ‘this week’ and ‘the next three sessions’). Notice in paragraph 2, the text is organized as statements using present tense verbs which made the categorical assertion. There is no modulation of truth and knowledge relations between the writer and the readers were clear-cut. Student 13 who knew the advantages of a blended approach to learning was telling those who did not know. In terms of transitivity, ‘I’ was frequently used to make reference to oneself to add more credentials which had been previously established in Line 1 and 2. Notice that the word, ‘You’ which is commonly used in most promotional genres is not present. Instead the phrase ‘the students’ was mentioned. This might be because ‘students’ who were the receivers of education experiencing a blended approach to learning would sit easily with the emphasis in the text which claimed its usefulness. Apparently, the text has constructed a high quality of blended approach in teaching and learning, which was highly appreciated by students (eg. In Line 5; “*some people were happy with it*”, as to why there were only ‘some’ and not all was well justified in Line 6).

However, in so doing, shared values were assumed. More evidence of this assumption can be found in the last paragraph Line 12 – 15, which implied those who experienced 100% asynchronous learning would have their social problems such as ‘frustration’, ‘guilt’ and ‘anger’ eliminated. In this regard, this form of text which resembles the genres of the incident report might not have been any better than those which resemble the genres of nursing care plans in terms of the possibilities for any

debate on the topic in question. Further evidence of this observation is discussed in the next section.

Table 5.2.2 Text showing promotional genres

Line	Texts (Extract 2/Data Set 2/Student 13)	Features of promotional genres
1	As I am in the fortunate position of having a group of victims (opps!) students	Stating own legitimised position in making the report Strengthening the
2	I thought that I would have a go at using eLearning to test my new knowledge.	
3	Last week I told them all to access the discussion board to discuss public health issues	
4	and we had some thought provoking input on the question. Is organ donation a public health issue?	Positive aspects
5	I noticed that some people were very happy with it and got a lot out of it, some did not access it at all.	
6	So this week I asked for feed back and found that out of a group of 15, 2 had lost their pass word and had never been able to access Blackboard.	Negative aspects, but justified with good reasons
7	These students are at the beginning of their third year. As a result of that 1 had sorted out the problem and the other swore that she 'was going to today'.	
8	The next three sessions are PBL and I suggested that they use the discussion board to communicate with each other. (Which reminds me I need to set up a file exchange).	Positive aspects
9	From my crude experiment I have observed that a blended learning approach can support the classroom learning and develop it as the students have time to reflect and contribute later.	
10	I have also seen the students support each other in that those who were having difficulty were inundated with offers of help, advise and were even escorted to the computer centre. It helped bonding in the class as a girl in Scunthorpe linked up with a girl in Bridlington to work on the trigger.	
11	It seems to remove alot of the negatives from both approaches.	To solicit responses from peers
12-16	If this course had a blended learning approach I think that it would remove some of the negatives from it. When reading through some of the messages, to me one of the main issues seems to be that people feel that they are not being understould. This then leads to frustration / guilt / anger etc and diminishes motivation and concordance. So I think a blended learning approach is the way to go.	

5.3.2.4 Fifth research question: Is there any evidence of attempts being made by nurses to make learning accessible/inaccessible to others?

Just as other MBPPs and many other SIPPs in this conference, there was no evidence to suggest that the ideas presented in the text could be contravened. The text might have been designed to serve informative purposes as in the case of an incident report, it had invariably focused on mainly the positive aspects of the topic in question. Not only that, evidence of these positive descriptions and evaluations from one's own lived experience was used to make the claims. The use of the word 'experiment' in Line 9 assumed that knowledge was based on a discrete and identifiable form of knowledge, which in turn assumed expert knowledge. (This is further discussed in the chapter of discussion). Therefore, information provided was legitimized knowledge and it was not to be challenged.

Nevertheless, the text which was essentially informative had incorporated some promotional elements (Table 5.2.2 on page 186). Due to the fact that there were increasing instances whereby the genre involved in recommending products and services were predominantly promotional in nature (Fairclough, 2003), it would not be far from accurate to think that any promotional document could be perceived as a recommendation. If that was the case, the topic (blended approach to learning) in question would receive attention from others for further debate about its positive and negative aspects. There was an obvious promotional feature in the text. However, just as the case in all other promotional efforts, Lines 12 to 16 in the text were produced as a rhetoric move to solicit support from peers. Due to the use of the features of the lexicogrammar and rhetoric moves which resulted in the informative elements of this text, one would expect the text to have invited responses that would incorporate only the positive aspects of the topic in question, just as its SIPP. Nevertheless, this was not the case.

The rhetorical moves which resulted from the promotional elements of this text were at play such that peers who had had a bad experience, (though they might not necessarily be associated with 100% asynchronous online learning) had responded to the SIPP instead. This resulted in responses which concentrated on the negative aspects of the topic in question. As evidenced from the text in Lines 14 and 15 (Table 5.2 on page 179), it had invited only those who had had negative personal experience of a 100% online learning to contribute their opinions. Since this could be any nurse or AHP, it was therefore not a surprise for this text to receive responses from anyone, not just nurses. In this case, there were at least 2 AHPs and 1 nurse who had participated in the discussion (Figure VI on page 190). It appeared in the responses that knowledge about the negative aspects was increasingly built. This was achieved through the exploration of the causal factors of the negative aspects as students took turns to participate in the discussion (Table 5.2.3 on page 191).

Nevertheless, this finding was based on a superficial analytic glance. On close examination of the text, it was obvious that the responses from all students were in the same line of discussion which inevitably supported the main idea presented in the SIPP. The negative aspects being discussed were not with regard to the use of a blended approach *per se*, they were in terms of the barriers to a blended approach to teaching and learning, all of which were highlighted in the SIPP. It could be seen in this discussion thread, that even when Student 12 had attempted to present an alternative point of view by introducing an argumentative element into her discussion with the use of 'However', the discussion was not different from the other two responses. It was also another elaborate narrative account of the barriers to a successful use of blended approach in teaching and learning. Hence, this message was one of the three posted to support the idea presented in the original SIPP in which a 'blended approach to

learning' had been constructed as 'the way to go' as found in Line 16 in the SIPP (Table 5.2 on page 179).

One possible reason for this observation was the presence of an element of nursing dominating discourse in the SIPP, in which the original contributor had been positioned as the expert, in the same way as the position of the writer being created in incident reporting in clinical practice. Hence, the views of Student 13 were not likely to be challenged but perpetuated. This was obvious in all the responses that only barriers to blended approach to learning highlighted in the SIPP were taken up for discussion, and this was the case even in the last message by Student 2 in this discussion thread.

Hence, as a result of the rhetorical moves in the SIPP, the text had indeed opened up an opportunity for discussion by others, including the AHPs. Unfortunately, the rhetoric move had determined who should participate (those who had encountered barriers to blended approach to learning). Compounding this problem was the way factual status of the claims was being established in the text, and together, they had restricted the context of discussion. Other than lacking in breadth, the discussion was also confined in terms of depth, in that a discussion on the negative aspects did not go beyond a superficial account of the one and only negative aspect which was already identified in the SIPP. This again was a typical trend seen in many of the discussion threads, particularly in the CF where students had certainly engaged themselves in participation but they had done so at a far distance away from any critical discussion.

Figure VI Interaction pattern generated: Extract 2/Data Set 2/Student 13

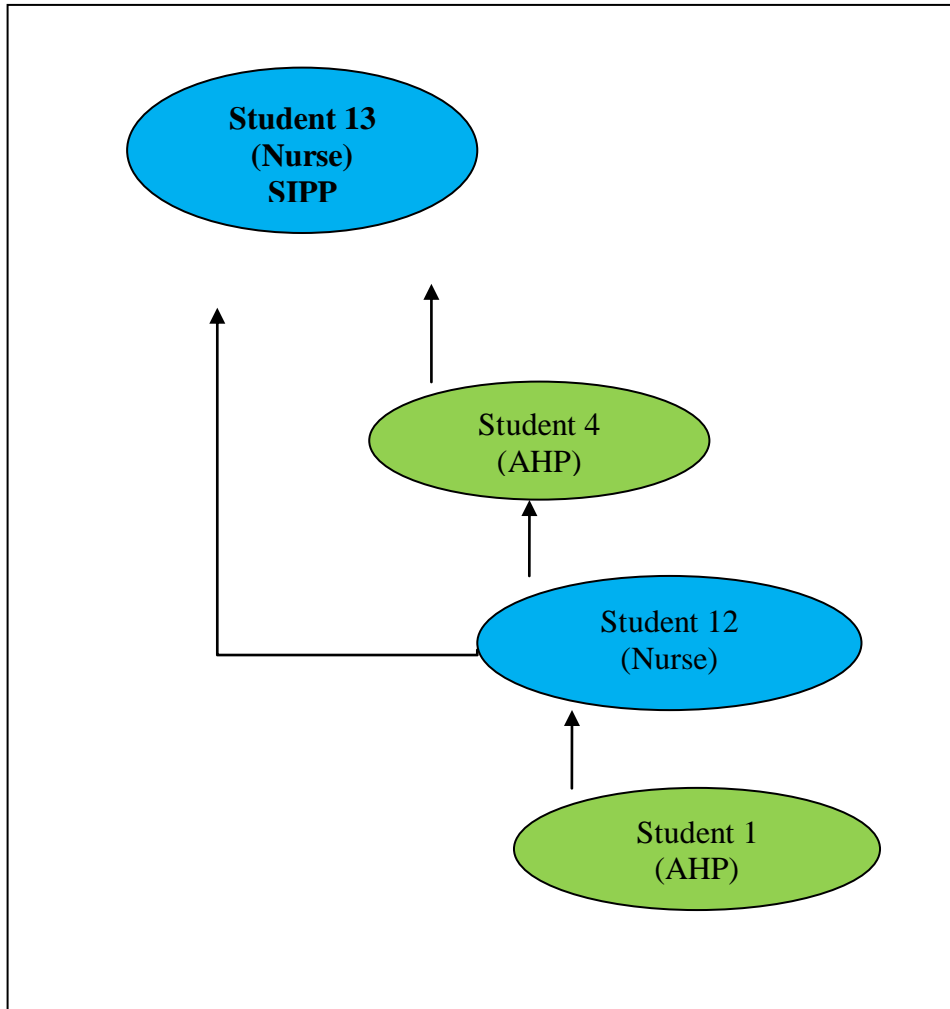


Table 5.2.3 Evidence of non-critical discussion

Extract 2/Data Set 2/Peer Responses	
Contributions made in response to SIPP	
<p>Student 4: “My experience working with my students and bb6 is similar and I find those who do not have the IT skills make up allsorts of excuses as to why they don’t access blackboard. I also have some student who do not have access to It off campus, this is really frustrating.”</p>	<p>Main Goals</p> <ol style="list-style-type: none"> 1. Reiterate the negative examples using one’s own experience with students 2. Provide reasons for the negative aspects: <ol style="list-style-type: none"> i. No access ii. Lack of IT skills
	<p>Effects</p> <p>Did not generate any response</p>
	<hr/>
<p>Student 12: “I agree with both you and Student 13. However, I do think that as lecturers we make the assumption that everyone will be able to gain access to a computer. This leads to personal frustration but may be we are wrong to assume that access and knowledge of how to use the systems is inherent in all students. This also fits into their motivation of gaining both the skills and knowledge in order to participate in the learning process. One area that lacks blackboard involvement is some of the post reg modules within this there are skills issues that we have discussed so many times in the activities.”</p>	<p>Main Goals</p> <p>Provide reasons for the negative aspects:</p> <ol style="list-style-type: none"> i. No knowledge to access ii. Lack of IT skills
	<p>Effects</p> <p>Did not generate any response</p>
	<hr/>
<p>Student 1: “ well if you want to meet some-one with access problems - "Hi" - I think students need to know that their lifestyle is recognised and understood - I sit with them and sort it out with them F2F in their terms eg. how many hours per week do you sleep, eat, go to pub, telephone home etc. etc. Make a cirle diagram - That helps to put it in perspective for them and then they can develop a trust in you that what is important to them is OK and that what is also important to you (on their behalf) may then become part of their lifestyle too.”</p>	<p>Provide reasons for the negative aspects:</p> <ol style="list-style-type: none"> i. No access (personal experience) ii. Lack of organisation skills
	<p>Effects</p> <p>Did not generate any response</p>

5.3.3 Discussion thread that comprised 30% or more participation rate from AHPs

5.3.3.1 Second research question: What are the contents and forms of texts produced by nurses in the conference?

The message which had drawn the most direct response in a discussion thread was selected as an illustrative example to explain the findings (Table 5.3 on page 193). This message was contributed by student 7 and it was a typical message found in the NCF. In the CF, this message was also typical of a handful of messages, found right at the end of a few discussion threads.

This text was a contribution made for the week 10 Topic. In this week topic, students were required to first post a MBPP to explain a strategic plan for implementing e-learning in their place of work. This proposed plan could include any methods of the students' choice. All other students in this conference were then expected to provide their opinions about the proposed plan. Students were expected to base their discussions on the knowledge they had acquired in the module so far.

The local context in which this message was posted, was one in which Student 7 had already contributed a MBPP to introduce her proposed plan. Views on some issues surrounding the implementation of the plan were already posted by 2 other students and were being discussed in this thread. Hence, this message was contributed as a response to the ongoing discussion.

This text had a total word count of 131. It was much shorter than the usual messages contributed by nurses in the conference. However, it still resembled other nursing texts due to its high lexical density. Besides, in some other ways it was also formal like written text. Textual analysis demonstrates the use of Codes such as 'Leads', 'CoP' and 'f2f', all of which were usually found in written text. Other than these observations, on the whole, this text was not found to contain many features, which reflected the genres of any written texts. Certainly not those genres which were found

in other MBPPs and SIPPs, which reminded us the form or content of nursing documentation; nursing care plans and incident reports.

On the contrary, when based on interdiscursive and social analyses, this text presented itself more as a spoken text. It was typical of a spoken text in containing much ellipsis; questions as well as statements in elliptical form were seen in Lines 4 and 7. Features of informal spoken language was also evident in the lesser use of grammatical metaphors in the opening statement in Line 1, “*As you say, Student 1 starting with a few...*”.

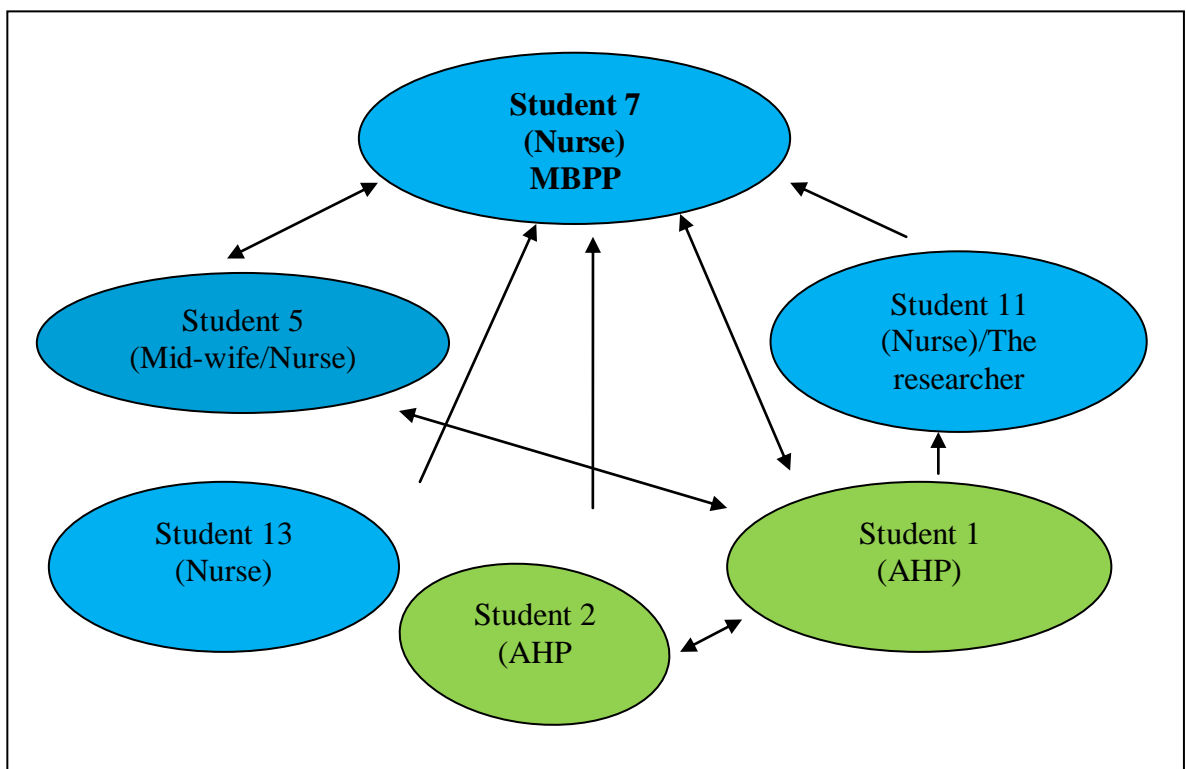
Table 5.3 Illustrative example 4

Extract 3/Data Set 3/Student 7
<p>Current Forum: Week 10 Facilitating and managing the change to elearning in health and social care. Date: Thu Nov 18, 2004 3:19 pm Author: Student 7 Subject: Re: Action Plan - developing a CoP for Professional Development of HV's</p> <p>-----</p> <p>Line 1: As you say Student1 starting with a few is probably a good idea to getting the 'ball rolling'.</p> <p>Line 2: Once the 'Leads' experience the benefits of eLearning they can then transfer their enthusiasm to other team members to encourage participation in the CoP. Is that the idea?</p> <p>Line 3: I just wondered would the idea of 'peer appraisal' demotivate some from joining in</p> <p>Line 4: if they feared the response of their peers to their thoughts and ideas shared?</p> <p>Line 5: I guess the leads already all know each other and</p> <p>Line 6: could therefore interpret the responses of their colleagues constructively, having a good idea of what they were meaning through their responses online.</p> <p>Line 7: I guess this issue would be covered in the initial f2f session in an attempt to alleviate the 'fears' of online socialisation and eLearning?</p>

5.3.3.2 Third research question: Are there any codes or technical vocabularies in nursing discourse?

As highlighted in the above section, some codes are evident in the text, such as ‘Leads’, ‘CoP’ and ‘f-2f’. However, none of which was specific to nursing discourse. In fact, the code ‘Leads’ was known to all HCPs in healthcare for it is commonly used to refer to anyone in healthcare who assumed the leadership role for the effective functioning of the NHS organization, whilst the latter two, ‘CoP’ and ‘f-2f’ were terms being explained and used in previous discussions in the current conference. Hence, by this week of discussion, these codes were already known to the students. In other words, technical codes might have been found in the text, but none of which were exclusive to nursing and unfamiliar to the students. This text was constructed to a level which fitted the level of all participants at this stage of students’ learning in this conference, including the AHPs. In this respect, this text was likely to engage its reader. Further evidence with regards to the transitivity of this text is discussed in the next 2 sections.

Figure VII Interaction pattern generated: Extract 3/Data Set 3/Student 7



5.3.3.3 Fourth research question: Is there any evidence of a dominating discourse in nurses-nurses and nurses-AHPs interactions in the constructivist learning environment?

To answer the above research question, social analysis was conducted and this led to the understanding that informal discourse as supplement to medical discourse was frequently used by nurses in clinical practice (Irving et al., 2005). Hamilton and Manias (2006) purported that this was one form of hegemonic struggle nurses displayed whilst nurses sought for alternative approaches to the medical model in nursing practice. Hence, Irving et al. (2005) also agreed that the informal discourse could be viewed as resistance to both the medical as well as nursing discourses. In this view, the attempts made to adapt a hegemonic discourse as a resistance to medical and nursing discourse in this text were apparent in this conference as evidenced from the occasional informal language use in this conference by nurses.

Unlike the previous two analysed texts which shared a similar structure as those found in nursing documentation, this text represented a more engaging and democratic way of enacting its concepts. It was therefore not surprising to find several responses from both nursing and non-nursing peers generated by this text. Indeed this text had resulted in a discussion thread which was more well-established than many others as seen in this conference. In this case, the message had received a total of 7 messages from nurses and 6 messages from the AHPs. Other than multiple responses being generated, two-way communication was also established amongst the respondents (Figure VII on page 194). From this observation, it could be concluded that a hegemonic discourse, in the form of informal discourse had somehow resulted in access to learning. Nevertheless, it might be premature for such a conclusion. In order to evaluate these findings, the effects of such hegemonic attempts needed to be

determined. It was therefore important to once again turn to the responses for further analysis.

To determine the effects of this particular text, analysis was conducted on messages which were directed at this text. These messages are presented in Tables from 5.3.1.1 to 5.3.2.3 (on page 198-202). From the contents of the returned messages, apparently, the respondents were made to think of the solutions in different dimensions. This was evidenced in the generated texts, that they comprised discussions of the solutions to the questions raised by Student 7, of which there was no restriction in terms of breadth and depth to the solutions. As evidenced in the responses from peers, different aspects of the proposed solutions were explored. In addition, greater depth of a particular dimension was explored when the discussion was persisted.

Some of these responses were even seen to have opened up further opportunities for students to pursue the topic in question. This was a result of some notable features of the respondent's messages which resulted in them being engaging. Notice that messages were generally not long. The genres of the texts reflected genres of conversations conducted on a social basis, and in some texts colloquial expressions were even used. In addition, some sentences were also found to have been constructed with the frequent use of deferential modalization, as such, a space for dialogue was created. When the texts were not only engaging, but the views were also enacted democratically, they were likely to be responded, just as they were in this case.

5.3.3.4 Fifth research question: Is there any evidence of attempts being made by nurses to make learning accessible/inaccessible to others?

From the above discussion, it was apparent that this text could be classified as a representation of any social exchange which was conducted verbally in any conversations. As discussed before, although in some ways this text is more formal like

written text and codes were used at some points, the text was explicit in seeking answers to the questions it raised, which could be generically answered by all who had the e-learning experience. In this case it was all the participants in this online conference.

Unlike previous analysed texts, the position of Student 7 was not constructed as an expert. Through modality analysis it was apparent that there was frequent use of questions to make a point. There was frequent use of the pronoun 'I' with the verbs 'wondered' and 'guess', that there was modulation of truth in this text. When the questions and the modal forms of sentences represented a choice that showed deference, the higher status Student 7 had, by virtue of the power difference inherent in the fact that she owned the proposed plan in question was reduced. By so doing, Student 7 had not presumed on her prior relationship with her peers; nurse as the expert knower and peers as passive learners, which could have easily been established in previous MBPPs and SIPPpS and/or in dominant nursing discursive practices in clinical practice. Instead she was renegotiating her position as a learner to gain respect and trust in the relationship. This was again evident from the frequent use of the pronoun 'I' with modal sentences which demonstrated deference. As such, the effect of the removal of the ideological expert image of a nurse was magnified.

Simultaneously, under the influence of the deferential use of modalization, all other students, including the nurses as well as the AHPs were positioned as the 'expert' with the knowledge to provide answers to the queries being raised in the text. In addition, the use of 'I' had personalized discussions, which had also given rise to an engaging effect with its readers, that the creator of the text was now seeking help from peers who in turn would see themselves as the ones with the knowledge to offer the help. All these, in effect, replaced the ideological position of an expert nurse by someone who was now seeking 'help' from everyone out there in the conference. With

regards to cohesion and coherence, this text was precise in specifying logical connections between the opening statement and the rest of the text. It did not require one to read between the lines to identify its goals. This text was clear in its aim; that is was seeking opinions from peers to enhance the proposed plan offered by the creator of the text. In this way, learning was made accessible to others.

Table 5.3.1.1 Evidence of accessible learning (response started by student 1)

Extract 3/Data Set 3/Peer Responses	
Contributions in response to Extract 3/Data Set 3/Student 7	
<p>Student 1:</p> <p>“Hi Student 7, I really like your ideas and think it would be good to provide a central place for these discussions and sharing of ideas to take place. I did wonder if this could be added onto existing websites/messages boards, rather than from scratch? I also wondered if this was something that could be accessed via the intranet? This would reduce costs- as i envisage that costs could be quite high. I also would worry about the IT support and whether it would require more than they could give? I hope this doesn't sound too negative as i really do think this is something i for one would benefit from. Thanks”</p>	<p>Main goal</p> <p>Proposed some possible solutions to the problems raised previously and discussion went into some depths</p>
	<p>Effects</p> <p>Generated further discussion from Student 5 in looking at some of these proposed solutions</p>
<p>Student 5:</p> <p>“Hi Student 7, I think my idea is very similar to yours, honestly I wasn't copying!! Maybe we could link NELincs & Hull & East Yorkshire & have a hully gullies & yellowbelly meeting! I think the main drawback for us both is sustaining people's interest and commitment to this sort of thing. Also Student 1 makes a very good point about IT support, ours is pretty poor.”</p>	<p>Main goal</p> <p>Provided a practical solution to the problem; negative aspects considered</p>
	<p>Effects</p> <p>Generated a further response from Student 2 to discuss how the practical steps might be realised.</p>

Table 5.3.1.2 Evidence of accessible learning (response started by student 1 - continued)

Extract 3/Data Set 3/Peer Responses	
Contributions in response to Extract 3/Data Set 3/Student 7	
<p>Student 2:</p> <p>“Thanks Student 7 - yes it is the only way to get the Leads confident in order to <u>mentor frontline staff</u> - but it can be seen as part of their CPD - also <u>I have to fear the reaction</u>, as you said of de-motivating them - and the difficulties to expect, as <u>comprehensively discussed by others</u> with Student 11 - but the only answer <u>may be a forced alternative</u> - but I am a "soft" person and not at all autocratic as that would defeat the purpose - this whole argument puts a new slant on Gilly's model opener of "access". I have to find a way of encouraging them by demonstration and letting them know how easy it is - once you start, the learning curve is steep but stepped.</p> <p>I had a dream last night that I was going over what my children call "a tickle tummy" in the front seat of the bus - I was on the top of a very steep drop and thrown completely out of my seat, to which my virtual (dream) body was dutifully returned - and gracefully - by gravity as I hit bottom! What I likened this to - as the thump woke me up - was <u>slipping down the other side of the Guassian curve</u> <u>the more we learn the faster we learn</u>.</p> <p>Do you have any resources on pulling out the intellectual capital of people??</p>	Main goal
	Effects
	<p>To provide positive and negative aspects of what had been proposed. (highlight issues previously raised in previous discussion threads)</p> <p>No discussion was generated from this</p>

Table 5.3.2.1 Evidence of accessible learning (response started by student 11)

Extract 4/Data Set 3/Peer Responses	
Contributions in response to Extract 3/Data Set 3/Student 7	
<p>Student 11:</p> <p>Thanks Student 7, it did appear with a 'click'. Yes I must agree that culture is a great barrier to this plan, and looks there is some positive stuff going on (from what you've posted). However, as you have pointed out that the ensuring of a seamless process for all really quite beyond us as educators.</p>	<p>Main goal</p> <p>Provide feedback to Student 7 whilst reassuring others the system worked. Agree with student 7 on both positive and negative aspects. To highlight the seriousness of the barriers for educators (all participants in the conference).</p>
	<p>Effects</p> <p>Generated a response from Student 1 to share with others her practical steps for implementing the plan</p>
	<p>Main goal</p> <p>Agree with Student 7 and student 11. Provided her plan of action which further illustrated the views. A proposal was drawn up, which highlighted the barriers student 1 would face in her practice</p>
<p>Student 1:</p> <p>Endorsed by me! Well done Student 7 – but what you and student 11 said make sense to me - I will now attach my effort- though small I do see / think the bigger picture but thought a simple start would be sense-making to me. What do you think?</p>	<p>Effects</p> <p>Generated a response from Student 5 and Student 2</p>
	<p>Main goal</p> <p>Highlighted some possible problems as indicated in the plan proposed by student 1.</p>
	<p>Effects</p> <p>Generated a response from student 1 and 7</p>
<p>Student 5:</p> <p>Hi Student 1</p> <p>This is a very clearly laid out action plan. Would you eventually shower it down through the service. i.e the first six lead therapists each teach the module to another group? Have you got funding for a VLE or already have access to one? It sounds very doable to me!</p>	<p>Main goal</p> <p>Highlighted some possible problems as indicated in the plan proposed by student 1.</p>
	<p>Effects</p> <p>Generated a response from student 1 and 7</p>
	<p>Main goal</p> <p>Highlighted some possible problems as indicated in the plan proposed by student 1.</p>

Table 5.3.2.2 Evidence of accessible learning (response started by student11 - continued)

Extract 4/Data Set 3/Peer Responses	
Contributions in response to Extract 3/Data Set 3/Student 7	
<p>Student 7</p> <p>I would say we have a similar problem - as in, I have waited 36hrs for my comp. in my consultation room to be fixed by our mobile IT Technicians. No sign of them yet. So spend my immunisation session running through to reception to sus out who's coming and what they're due, before I can get on with the job!!!! Who knows when we'll see them.</p> <p>So <u>Yes IT is a problem.</u> However I'd like to give it a go anyway cos the motivated people will find a way to join in anyway regardless!!</p> <p>I think the idea of a North & South combined CoP would be great - who would eModerate it / maintain the discussion environment etc?? Could be a Joint Venture??</p>	<p>Main goal</p> <p>Elaborated on the points made by student 5 based on specific examples before reinforcing her view that was in alignment with student 5 (and in another concurrent thread) that IT was indeed a problem</p> <hr/> <p>Effects</p> <p>Generated a response from student 1</p>
<p>Student 1</p> <p>Hi - thanks - I need all the encouragement that I can get - "do-able" is exactly the word I need! - Yes, hopefully if successful, there are many varieties of open options for cascading the e-learning process and purpose - I am hoping to get IT and training on board asap for the VLE etc back up - what do you think my chances are?</p> <p>PS Parent participation (User involvement) - I know a parent with these skills - what are the ethics - could I approach through PALS who have witnessed this parent frustration - it could be very therapeutic! (DO NOT take me too seriously as I am aware of the Ethics committee procedures and the time it takes for pragmatic ideas to become "do-able" - just as we cannot e-mail our essays!</p>	<p>Main goal</p> <p>Elaborated on the points made by student 5 and 7 with more specific examples</p> <hr/> <p>Effects</p> <p>No discussion was generated from this</p>

Table 5.3.2.3 Evidence of accessible learning (response started by student 11 - continued)

Extract 4/Data Set 3/Peer Responses	
Contributions in response to Extract 3/Data Set 3/Student 7	
Student 2: Student 1, I thought your action plan sounded like something that sounded fairly easy to implement, with high results. Is it something you would actually consider doing?	Main goal
	To provide encouragement and peer support
	To also, elicit information as to whether the plan as suggested by Student 1 was actually practical
	Effects
	Generated response from Student 1
Student 1: Hi student 2 - thanks - I wanted to start simply in order not to confuse - and yes - I am starting a secondment shortly and think this might be a useful tool - but it is good to be fore-warned of the potential difficulties - wish me luck!	Main goal
	To reinforce the reason for her proposed plan. But in recognising the potential difficulties as discussed in the concurrent discussion, student 1 sought support form peers.
	Effects
	Generated a reply from Student 2
Student 2: Good Luck!	Main goal
	To meet the request of student 1
	Effects
	No discussion was generated from this

5.4 Critical remarks of findings

Through CDA, two discursive practices – nursing and informal – have been described as evidenced in the discussion threads presented in the conference (Table 5.4 on page 204). Nursing discourse was found to be access limiting to some extent, while informal discourse was found to be access enhancing. While the two types of discourse had different effects on access to learning, they did not appear to coexist in the two forums.

In the NCF, many of the discussion threads were found to comprise texts which took the form of colloquial terms and expressions. On the contrary in the CF, texts in

spoken form were scanty, and if they ever did appear, they were often found right at the end of a threaded discussion which was dominated by nursing discourse. Presumably, a discussion thread would have to be persisted for a time period, long before the established grounds of messages in the form of written texts which reflected genres of the nursing care plans and incident reports could be 'invaded'. This could mean, opportunities for discussions presented by informal texts which permitted the pursuing of the topic in question was hard to come by in the CF, where formal learning was expected to occur.

Since texts in the form of colloquial expressions were more commonly found in NCF, opportunities for collaborative learning would still have occurred. However, it was important to recognise that social support to students was the main purpose for the existence of NCF. Hence, with any doubts, collaborative learning was likely to have occurred but it would mostly be informal and on a social basis. This was because the NCF was created for social purposes rather than for addressing the topics in question to achieving the learning outcomes in relation to collaborative learning.

Having said that, positive student learning experiences were likely to have been produced in formal learning in the CF. However, it might not have been as extensive as in the case for social networking in the NCF. If this was the case, this study had certainly reflected the findings of earlier work, where positive student learning experience of healthcare students were confined to one aspect of learning; social support and networking (Atack & Rankin, 2002; Andrusyszyn et al., 1999; Cragg, 1994; Landis & Wainwright, 1996; McKenna & Samarawickrema, 2003; Naidu & Oliver, 1996), whilst student dissatisfaction from group domination remained a problematic issue in interprofessional learning (Bacigalupo et al., 2001; Becker et al., 2000; Juntunen & Heikkinen, 2004; Lund et al., 2002).

Table 5.4 Summary of differences between two sets of discursive practices in the conference

<i>Forms of discourse</i>	Nursing discourse	Informal spoken English
<i>Presence of Technical Vocabularies/Codes</i>		
Ways knowledge is represented	Impersonal transmission of knowledge which reflected the genres of nursing care plans and clinical incident reports	A coherent extension of everyday talk
<i>Evidence of a dominating discourse</i>		
Authority	Contributor controlled content & direction of discussion	Contributor negotiated knowledge with peers
Learning environment	Learning was about supporting the views of the contributor and was extended to what the contributor knew	Learning is within a community of learning where it is about negotiating and exploring possibilities
Participation	<i>Evidence of inaccessible learning:</i>	<i>Evidence of accessible learning:</i>
	Limited to certain peers	Opened to all
Context of learning	Limited/Restrictive	Expanded
<i>Location:</i>	Predominantly found in CF	Predominantly found in NCF & In CF: only last few messages in discussions threads

5.5 Conclusion

The interactional analysis of CDA of the texts was based on the three distinctive interactional patterns of discussion threads derived from the quantitative analysis of the online discursive behaviour of nurses and the AHPs. This second stage of analysis which involved the examining of the properties of texts, interactions (features of discourse practice-text production, consumption and distribution) and socio-cultural practice (Fairclough, 1995) had further explained the interactional patterns of the conference. When messages contributed by the nurses and AHPs to create topical discussion threads were investigated, the extent to which, messages could generate dialogic chains of messages; how they as the original parent postings were perpetuated was determined. When the findings were verified through a turn-to turn-analysis of 'talk'; the responses being directed at the original postings and to the responses, the way in which the interpreters of the texts took up, and how their responses shaped what would come next, were also determined. Through this analysis, the knowledge of how the texts of the two distinctive discursive practices - nursing discourses and informal discourses, supported or undermined particular systems of knowledge and belief, social relations and ways of being within the nursing culture, was obtained.

However, as a result of using the few illustrative examples, the discussion in this chapter had only been able to illuminate the extent to which nursing language exerted power to as far as within the constraints its own generic conventions, and not within that in higher education. Thus, in the next chapter, more discussion is provided to demonstrate how nursing language exerted power within a broader set of power relations which exist between nurses and AHPs in higher learning. Its aim is to further explain the IPOL experiences of nurses and AHPs and more importantly it is to verify the findings that were discussed so far.

Chapter 6: Discussion

6.1 Introduction to the chapter

In chapter 4, it was demonstrated how a quantitative analysis allowed a systematic selection of discourse data. This was achieved by first establishing the significance of the relationship between professional disciplines and students' interactive patterns. In chapter 5, critical discourse analysis (CDA) of the selected texts revealed detailed information; which further explained the interactive patterns determined by the quantitative analysis. However, the discussions of the effects of the two different types of texts, namely - nursing discourse and informal spoken English - were derived from the analyses which were conducted for illustrative purposes. In this text-based learning environment, student interprofessional online learning experience (IPOL), as a whole, needed further discussion. In order to achieve this, the remaining messages contributed by the e-moderator in both the compulsory forum (CF) and non-compulsory forum (NCF), were analysed. The analysis was conducted in the same way as the examples illustrated in chapter 5.

The aim of this chapter is to demonstrate how the information gathered in all three stages of the data analyses contributed to the development of a better understanding of the topics under exploration in this study. In the discussion, the linguistic features and the lexical choices of texts are provided to explain the study observations. The findings of the three stages of analyses, which revealed student learning experience, are discussed. This strategy is to ensure that any conclusions of student learning experience, derived from the observations of the interactive patterns are checked against students' own interpretations of the texts in the local context.

As in chapter 5, discussions on student IPOL are based on the findings which revealed the student learning experience and the effects of learning. They are presented in four sections in relation to the last four established research questions:

- i. What are the contents and forms of texts produced by nurses in the conference?
- ii. Are there any codes or technical vocabularies in nursing discourse?
- iii. Is there any evidence of a dominating discourse in nurses-nurses and nurses-allied healthcare professionals (AHPs) interactions in the constructivist learning environment?
- iv. Is there any evidence of attempts being made by nurses to make learning accessible/inaccessible to others?

Each of the above 4 sections is further divided into several subsections to deal with the findings which answer the specific research question that ultimately explains the student IPOL experience. For explicit interpretations of the analysis, samples of the discourse data are reproduced verbatim to explain the salient linguistic features of the texts. Given the fact that the focus of this study is on discourse, any grammatical and spelling mistakes and/or typo errors which appeared in the texts are not corrected. Instead they are presented in this thesis as they have appeared in the conference. Texts taken from the conference to explain the findings of this study are italicised in order to distinguish them from the text of this thesis. Unlike discussions in chapter 5, complete messages produced by the students are not used. Instead, sections of messages are quoted from the original text to allow readers to see the ways in which the intentions and the social implications of the texts are understood and how these inferences were drawn in explaining the students' IPOL. Towards the end of the discussion, the relationship between the use of nursing discourse and the student learning experience as a whole is presented in the section of critical remarks. This chapter ends by highlighting the salient aspects of the student learning experience before it sets the scene for chapter 7.

6.2 Second research question: What are the contents and forms of texts produced by nurses in the conference?

This section deals with the second research question. Discussion in this section is divided into two main subsections which are organised as shown in Table 6.1. The first subsection explains the contents in the texts and discusses its effects on the students' learning experiences. The second subsection deals with the forms in which the texts are presented and its effects on student learning experience.

Table 6.1 Organisation of discussion in section 1

<p>6.2.1 Content of texts: Factual knowledge and its effects on learning</p>	<p>6.2.2 Form of texts: Written language and its effects on learning</p>
<p>6.2.1.1 Ways to present factual knowledge</p> <p>6.2.1.1.1 Referencing to published work</p> <p>6.2.1.1.2 Generalising knowledge</p> <p>6.2.1.1.3 Reinforcing the aperspectival objectivity</p>	<p>6.2.2.1 Ways to present texts as written language</p> <p>6.2.2.1.1 High lexical density/Genres of written nursing discourse/Essay writing</p>
<p>6.2.1.2 Student learning experience</p> <p>6.2.1.2.1. Uncritical Acceptance of knowledge and limited boundaries in learning</p> <p>6.2.1.2.2 Feelings of inadequacy</p> <p>6.2.1.2.3 Demanding learning</p> <p>6.2.1.2.4 Limited exposure to constructivist learning</p>	<p>6.2.2.2 Student learning experience</p> <p>6.2.2.2.1 Students struggled to find relevance</p> <p>6.2.2.2.2 Students struggled to stay online</p> <p>6.2.2.2.3 Minimal collaborative learning</p>
<p>6.2.1.3 Counter argument</p>	<p>6.2.2.3 Counter argument</p>

6.2.1 Contents of texts: Factual knowledge and its effects on learning

As discussed in the chapter of methodology and methods, the CF was where students were required to participate at least once weekly in the online discussion. Naturally, when the CF was the site where participants had to fulfil the teacher-defined discursive tasks within a time frame specified by the e-moderator, the impression was created amongst the students that it was a discursive site for formal learning. Indeed, this impression of CF as a site specially designed for formal learning was reinforced by the e-moderator in several ways. First, in the CF, the original contributions made by the e-moderator to start students on threaded discussions were formally presented in the form of written texts (the characteristics of which had been discussed in detail in chapter 5). Second, in the NCF, the messages of the e-moderator contributed in response to students' enquiry comprised informal spoken language. The contributions from the e-moderator had clearly differentiated the purpose between the CF and the NCF that the former site was for formal learning and the latter site was for informal socialisation. Third, the contents of some of the e-moderator's messages were found to have a clear purpose to reinforce the initial impression created at the start of each topic area, that the CF was a site for formal learning.

To illustrate this observation, an example of the e-moderator's contributions was extracted from the NCF at a stage where students in general were becoming more active in online participation. This extract was taken from a message of the e-moderator in response to a students' query about how the student should conduct herself discursively in the CF.

"...we are undertaking a more serious business of learning and you are trying to construct arguments..."

M – Week 5/CF/'e-M's cyber office'

Clearly, this message was to highlight to the student concerned, that the individual was engaging in formal learning, and she was therefore expected to construct her discussions

to an acceptable level as determined by the standard of formal learning, if not the requirements of higher learning. Since this message from the e-moderator was posted to the public domain, it was accessible to all students. For this reason, this message was therefore also a reminder for all students that the discursive practices in the CF was no different from the ways students normally construct arguments for academic purpose. In fact, a general impression of CF as a site for formal learning that was created at the beginning of the module was not only constantly reinforced at the early stage of student online learning experience, but it was also reiterated towards the end of the module. This was observed in the message of the e-moderator contributed in the CF towards the end of the module as shown below. This was a message contributed as an instruction for the work activities in week eleven. Notice that the text has an opening statement which affirms that the CF was indeed, a site that had been specially designed for formal learning and would continue to be so even when this module was coming to an end.

“Something a little lighter – just to keep things ticking over while you work on your assignments!”

M – Week 11/CF/‘Case studies’

Whether the impression of the CF as a site for formal learning that was first created and subsequently reinforced by the e-moderator had any influence on how students subsequently learnt was not clear. However, there was a general pattern in the way nurses presented knowledge in this forum. Messages in the CF contributed by nurses reflected the genres of written nursing discourse whereby knowledge was often put across as factual information. This was achieved through the framing of knowledge by; 1) referencing contributions to published sources, 2) framing the contents of messages as generalised knowledge and evidence-based information and 3) reinforcing the concept of aperspectival objectivity in many of the messages.

6.2.1.1 Ways to present factual knowledge

6.2.1.1.1 Referencing to published work

Nurses' language use in the CF was commonly found to be formal and objectifying. The texts produced in the CF were nothing like those found by other researchers (Fernback, 2003; Yates, 2001) in their studies concerning computer mediated conferencing (CMC), that communications via CMC were more like informal oral conversations spoken in a face-to-face dimension. To a large extent, the messages from nurses resembled those which were originally posted by the e-moderator in each topic area. Messages from nurses not only reflected the genres of written nursing discourse but they also mirrored the genres of academic writing. This was apparent when the use of supporting evidence from published sources commonly found in the original messages of the e-moderator was frequently found in nurses' texts. The following are some examples taken from the conference to demonstrate the way in which in-text citation was employed during discussion.

"...Bencze (2004) indicates...Vygotsky (1978) highlights that scaffolding should enable learners to perform activities that they were unable to perform without this support...Winnnips (2001) supports this by emphasising..."

Student 8 (Nurse) – Week 5/CF/‘eLearning as an emerging pedagogy’

"... Jarrold, 1996, quoted in Hadley and Clough, 1996, p19) whilst making a tour of an NHS establishment)..."

Student 6 (Nurse)/Week 7 – CF/‘Communities of practice’

"...and altered practice, ‘developing their field of expertise rather than focusing on a particular task.’ (Allee 2000)..."

Student 7 (Nurse)/Week 7 – CF/‘Communities of practice’

"...I found this definition of Blended Learning - (Centra Software 2001) "Blended learning focuses on optimising achievement of learning objectivestransfer the 'right' skills to the 'right' person at the 'right' time". (Singh, Reed 2001)."

Student 6 (Nurse) – Week 8/CF/‘Blended learning’

Messages produced in this conference were not different from any formal academic writing in higher education. The construction of knowledge was very much based on an objectivist or universalised view, supported by published sources for academic purpose. If nurses' use of published sources was to substantiate or to justify their views, this online behaviour served the same purpose as the referencing conventions used for any argument in a piece of written assignment, for example, essay writing in higher education (Coffin et al., 2003). It seemed that nurses tended to view conferencing as a form of academic exercise which was often used as a summative assessment in formal learning in higher education. This was despite the fact that students were aware that contributions made to online discussions in the conference were not graded in this module.

In Lyotard's (1984) view, denotative knowledge is knowledge in accordance to facts that it was able to gain acceptability. As explained by Khun (1970), facts were entities constructed by like-minded people. Since scientific knowledge was based on facts (Khun, 1970), it was likely to gain acceptability. By referencing the messages to external published sources, nurses might not have been just aiming to give credit where messages were due to the work of the experts in the relevant subject or disciplinary area. It also might have been an indication of nurses' rhetoric move to represent knowledge in a denotative form based on scientific knowledge to gain acceptability with the AHPs as well as other nurses. In this light, there might be more than one reason to explain the discursive act of nurses in the CF. In other words, the phenomenon of nurses' frequent referencing of messages to external published sources might be more than just a reflection of nurses' act as students adhering to the guidelines of academic writing in higher education. The other reason for nurses' frequent referencing to published sources might be better explained in the context of nursing. These are explored in the next two

sections, in relation to two other types of discursive behaviour of nurses in which knowledge is represented in the CF.

6.2.1.1.2 Generalising knowledge

Nursing discourse in the conference has shown yet another way by which nurses used objectifying language. Other than quoting from published work, nurses were seen to also have framed their experiences to equate them to findings of some kind of empirical studies based on a quantitative approach. It is generally agreed that quantitative researchers were expected to meticulously adhere to some required strategic research measures (Taylor, 2001) such that quantitative research studies, are very often regarded as reliable and valid, that their findings are often seen as generalisable. This is particularly so for a specific type of quantitative research studies; those which employ experimental designs. Indeed, on one occasion, the use of the lexical item ‘experiment’ was used to justify a point.

“...From my crude experiment I have observed that a blended learning approach can support class room learning...”

Student 13 (Nurse) – Week 8/CF/‘Blended learning’

Apparently, this discursive act was to map the account provided in the texts with some kind of true experiment; empirical studies based on natural and formal sciences, because it was true experiments that produced reliable and valid results, which easily gain acceptability. Indeed, according to Lyotard (1984), as to why denotative knowledge could readily gain acceptability, was because, it was removed from its human origin; whereby subjective views based on personalised opinions were emphasized. However, the approaches in empirical studies based on natural and formal sciences, would not be approved for investigating living subjects, such as human beings, and ethical clearance from the relevant ethical committees would be impossible. Nevertheless, if these experiments were permitted to be performed, they would most

definitely achieve reliable results which could explain the causal effects of the conditions or the context in question. For this reason, some form of experiments would still be used in healthcare research, whereby randomised controlled trials and quasi-experimental designs were commonly adopted as best alternatives to true experiments in order to achieve reliable and valid findings.

The understanding of the nature of healthcare research helps in the appreciating of the intention of this text. The lexical item 'crude' being used with the word 'experiment' was to suggest that the experiment was ill designed that it was not a true experiment, as in the case of any healthcare research. In this light, it cannot be argued that, the word 'crude' which mitigated the strength in claiming 'truth', was not to gain acceptability. It is important to understand that this modal form of language might have been utilised no more than to demonstrate nursing awareness of the limitations of true experiments in nursing, based around human experience. Thus, despite the fact that the strength of claiming truth might have been weakened, the use of objectifying language in association with the lexical contents 'crude experiment' was likely to have been the intention to achieve acceptability of the represented knowledge.

Indeed, on many occasions, the way in which factual information was presented in nursing discourse was generally nowhere near what Lyotard (1984) offered as an explanation for the way denotative knowledge gained acceptability. Instead of being removed from its human origin, denotative knowledge in nursing discourse was more often than not, presented in a social context based on human experience. This observation can be explained based on Popper's 'three world theory', the latter encompassed both the objective and subjective knowledge (Magee, 1982). According to Popper's theory: 'world 1' - the world of physics, of rocks, and trees and physical fields of forces, 'world 2' - the psychological world included the world of subjective feelings and experiences, and 'world 3' - the world of the products of the human mind, which are

results of the interaction between ‘world 1’ objects and ‘world 2’ events (Magee, 1982). This meant, when an identical object in ‘world 1’ was exposed to two individuals, it potentially gave rise to two distinctive and private sets of ‘world 2’ events (Magee, 1982). The latter when interacted produced yet another distinctive set of products in ‘world 3’ (Magee, 1982). In this regard, knowledge was based on discoveries, it was made from studying the problem situation encountered and tested by people (Magee, 1982). As explained by Magee (1982), subjective knowledge (in ‘world 2’ and ‘world 3’) might have been based on objective knowledge (in world 1), still knowledge in this ‘world 3’ of Popper is man-made but autonomous. For this reason, it should be studied from a biological or evolutionary point of view (Magee, 1982).

Coming back to the conference discussions, it was apparent that knowledge was contributed with a heavy use of references to ‘people’. This rhetorical move was to indicate the autonomy of the man-made knowledge (in Popper’s ‘world 3’) being contributed in the conference. The example shown below was a common occurrence in the conference.

“I noticed that some people...I asked for feedback....I have also seen the students...”

Student 13 (Nurse) – Week 8/CF/‘Blended learning’

Nursing knowledge derived from either a problem solving or a process orientated approach was based on a broad perspective of human in relation to health and illness (Roy & Jones, 2006). Hence, in nurses’ texts it was common to find large amounts of referencing to either the identified individuals with the experiences and/or a specific context in which the latter existed. Certainly, in this conference, knowledge was found to be represented in the same way as in care planning in the nursing process (page 170) or adverse incident reporting in clinical practice (page 183).

No doubt, information provided in nurses’ contributions was often given with reference to many professional nursing colleagues and in multiple contexts. However, in

nurses' messages, these nursing colleagues were often implicitly referring to only nursing staff in hospital settings or nurse lecturers in higher education. These specific professional groups of nurses were often characterised by the phrase 'all ward staff' (page 175) and "lecturers" (page 191) because these lexical contents helped to refer to every other nurse in secondary care or other nurse lecturers in higher education to assume all these nurses and academics with nursing background would have the same experience as the contributor. A transitivity analysis also demonstrated that the collective pronouns 'we' and "they" were used besides the use of the phrase 'all ward staff' to achieve the same effect of acceptability by assuming that the addressees, who were affected in the same way as the contributors of the messages, would agree with what was put forward in the original messages. Obviously when there was good evidence to support a universal perspective, especially from a group of people who were known to have the expert knowledge as implicated by their professional roles and responsibilities, the contributor's idea was well supported and hence accepted in the conference.

For any healthcare information to be considered evidence-based, it was required to have been consistently and systematically identified, evaluated and selected from various sources which might not have been exclusively based on empirical research (Jennings & Loan, 2001; Roberts, 1998; Rolfe, 1999; Stetler et al., 1998). Hence good evidence-based information may be one which was given with references to many contexts, reflecting consensus recommendations and affirmed experiences in clinical practice. Thus, it does not always have to be research based. The phrase 'many staff' and the pronoun 'we' were used strategically to make frequent assumptions about a singular perspective that applied to other situations, all of which had been assessed and evaluated, to create a general pattern of events to give rise to the production of evidence-based information. Hence in nursing discourse, even if knowledge was not

detached from its human origin, it was still denotative in nature. In fact, by presenting denotative knowledge in the context of human experience, nurses were able to universalise partial perspectives in this conference with evidence-based knowledge. This had then further facilitated the process of claiming truth.

6.2.1.1.3 Reinforcing the aperspectival objectivity

Besides the use of specific pronouns and phrases, it was also interesting to see that in the event of universalising partial perspectives, knowledge was also disseminated by nurses in an aperspectival world. This notion of 'aperspectival world' was advocated in Jean Gebser's work, 'The Ever-Present Origin'. In Gebser's work (1985), he explained that there are three European worlds, namely; the perspectival, unaperspectival, and the preaperspectival. Gebser believes that in each of these three coexisting worlds, knowledge and reality were uniquely represented in different ways. The perspectival world is one in which human's perception of reality is perspectively restricted to only one sector of individuals' understanding of the world that can be scientifically and technologically observed and hence, rationally explained. The unaperspectival world, on the other hand is unaperspectively evocative of a vague sense of reality based on a collective of human's artistic understanding of the world; Gebser calls this second world the magical world. The third of Gebser's European world is the preaperspectival world. This world is somewhat similar to the unaperspectival world, in that knowledge of reality is not intellectual-rational based, instead it is also based on a collective human's artistic understanding of the world. However unlike the unaperspectival magical world, knowledge representation in a preaperspectival world is mythically and spiritually represented.

Besides these three distinct worlds which Gebser had differentiated, there is another world, which Gebser identified. He calls this the aperspectival world. In Gebser's own words, this fourth world

is a world whose structure is not only jointly based in the pre-perspectival, unperspectival and perspectival worlds, but also mutates out of them in its essential properties and possibilities while integrating these worlds and liberating itself from their exclusive validity

(Gebser, 1985: 294).

In other words, knowledge derived from an aperspectival world required the sensible inclusion of knowledge from a magical, a mythical and an epistemological disposition in the three different worlds in order that reality was experienced (Gebser, 1985). The experience of reality in an aperspectival world might be a result of the interconnection, but definitely not a synthesis of the different knowledge of these different worlds (Gebser, 1985).

With Gebser's notion of 'aperspectival world' in mind, representing knowledge based on an aperspectival consciousness warranted a critical scrutiny of the prevailing conventional understanding of how knowledge was constructed. In the conference, by representing knowledge in an aperspectival world, this provided interpreters the clear indication that despite knowledge having come from nurses', it was separated from the individual nurse's (knower's) personal interests. It simply meant knowledge was in no way a collection based on nurses' biased judgement. Instead it was knowledge that had been subjected to scrutiny in a wide context. Here are some examples to demonstrate how this was rendered.

"Having had a quick scan for blended learning on a basic search engine, it seems to me that one of the disadvantages of the blended learning approach.."

Student 5 (Nurse) – Week 8/CF/'Blended learning'

"...I suppose that in the literature which is currently available on the subject there is understandably often an over-enthusiasm to promote the potential diversity of this form of learning..."

Student 8 (Nurse) – Week 8/CF/'Blended learning'

"...a lot of literature have been written on this and some of them have pointed out..."

Student 11 (Nurse) – Week 12/CF/'evaluating virtual learning environments'

In all the above messages, the impression of having done a literature review was used to convey the idea that knowledge was represented in a universalised perspective in an aperspectival world, which Gebser (1985) described.

Take the third example; the phrase – “the literature which is currently available” was used to achieve a universalised perspective. The main aim in this message was similar to the one found in the other two examples. It was to claim that the topic in question was presented in its fullest sense from many evidence sources – ‘the literature’. However, notice the phrase – “I supposed” which was used at the start of the claim. It appeared that the student was oscillating between decisive and indecisive claims. This grammatical item which was used to mitigate the responsibility of truth and modified the force of the utterance, suggested that the modal statement was simply a reflection of another form of academic language nurses use.

However, such conclusion might have been an interpretation at face value, the modal statement was for Student 8 to demonstrate her awareness of the existence of current literature, whilst at the same time, to emphasize her appreciation of the potential conflicts with other possible interpretations. In fact, the modality that was used to introduce some possibility into the topic in question was to reinforce the mission of this text. It was to give its interpreter the impression that the views presented in the discussions were indeed not one’s own but that of many others based on a literature review; the latter, even if not current, were still important simply because they were published information in the past. This rhetorical move when used in making claims as such, created an even stronger impression on the interpreter that whatever was presented was not imposed by nurses’ own political reasons, but were rather, current issues, or otherwise longstanding concerns of many relevant experts in the field. It could be seen that by strategically situating knowledge in an aperspectival objectivist view, nurses

were able to render more validity in their represented knowledge in order to gain acceptability.

There were other means which nurses employed to achieve an aperspectival objective. Nurses' accounts offered in their messages were also made to connect to a larger context in healthcare or educational situations. This rhetorical discursive move had certainly helped to situate knowledge in an aperspectival world.

On some occasions, the narrative accounts were even made to be connected to a social context of a third person who was neutral in the learning context.

"I have used this site in the past both for personal learning and with my students..."

Student 5 (Nurse) – Week 4/CF/‘Resourcing e-learning’

"...As part of our divisional mandatory training I use a face to face session to update staff on infection control, however they work in groups to discuss the answers to my virtual student nurse who is asking them about blood borne viruses, universal precautions etc. As part of one of the questions, they identify that to further the virtual students knowledge she must access the infection control website on our trusts intranet. More than half of the staff (not being ageist, but they were the nurses who had worked in the NHS for a long time) could still NOT access the homepage..."

Student 10 (Nurse) – Week 8/CF/‘Blended learning’

On other occasions, nurses had also used experience of their family members, who were presumably trusted people for supplying ‘truths’ that it added bearing to nurses’ claim to aperspectival objectivity.

"However, if they are then told to access material that uses very basic technology (some of the training CD ROMS we have got are very basic) it may detract from the learning experience, especially if they are not yet mature enough to cope with having to deal with old-fashioned stuff! This has actually been highlighted as a problem in my husbands work place (18 to 19 year olds..."

Student 5 (Nurse) – Week 8/CF/‘Blended learning’

"...In other parts of England, particularly London, where my sister from Hewlett Packard who has business dealings, she gave me a very similar picture..."

Student 11(Nurse) – Week 8/CF/‘Blended learning’

Many perspectives in a wide context either based on a literature review or obtained from a variety of third persons, some of whom were not even healthcare professionals (HCPs) of IPOL (presumably would have many interests, other than the vested interest of a stakeholder in IPOL) were employed to aid in nurses' discussions. Whilst the debate on objectivity in nursing knowledge continued to argue for individual's ontological understanding of a phenomenon against a collective consensus of generalisable epistemological knowledge (Orem, 1995), these rhetorical moves in using research and anecdotal evidence appeared to be nurses' act to address the paradoxical reality of nursing knowledge that had inescapably emerged from this emphasis of ontological significance of objectivity in nursing. Apparently, the act was replicated in the conference to highlight that nurses' view were objective and it was in no way, bound to nurses' personal particular perspectives. The discursive move ultimately created an impression that there was some form of basis in the texts, such that knowledge was represented in objectivity, and it therefore merited acceptability.

6.2.1.2 Students' learning experiences

As explained earlier, there were many ways in which knowledge in nursing discourse was presented as an extant fact to gain acceptability. However, due to an ontological significance of understanding in nursing, the representation of knowledge was not removed from a human origin as in the case of representing denotative knowledge. Yet the texts created by nurses could achieve the effect of acceptability as much as the use of denotative knowledge. This was more because knowledge in nurses' text was universalised, presented as evidence-based information in an aperspectival world and supported by some kind of empirical studies. When that happened, peers in online learning were more likely to be encouraged to assimilate knowledge rather than to negotiate or contest knowledge. The following discussions provide some evidence to

this claim before explaining the effects of learning and the resultant student learning experience.

6.2.1.2.1 Uncritical acceptance of knowledge and limited boundaries in learning

In this study, knowledge presented in the CF by nurses was hardly contested. Phrases like “I agree” and “I totally agree” had made their frequent appearances as an opening declaration in respondents’ messages. Otherwise clauses to indicate agreement were commonly found.

“I share similar view that...”

Student 11(Nurse) – Week 4/CF/‘Resourcing elearning’

“I agree with you that....”

Student 7 (Nurse) – Week 7/CF/‘Communities of practice’

“You are absolutely right....”

Student 1 (AHP) – Week 8/CF/‘Blended learning’

“I agree with you, Student...”

Student 6 (Nurse) – Week 9/NCF/‘Reflections on the module so far’

The aim of the above messages as indicated by these grammatical items in the opening declaration and statements in students’ messages were subsequently fulfilled in the contents of the messages. The latter were indeed simply extensions of the original messages (page 172/188). There was no diversion from the original aim of the e-moderator based parent postings (MBPPs) or self-initiated parent postings (SIPPs). This observation was especially common amongst the nurses (Section 4 explains this observation).

It appeared that learning in the conference had relied on the objectivist view of knowledge. As a result, any views first offered by nurses in their parent postings were hardly challenged. Knowledge hardly extended beyond a nursing context, whereby learning was about integrating one-self to the existing pattern and structures of knowing

which was nursing-oriented. In cases when the contributor was from a specialised nursing discipline, learning did not even stretch beyond a specific and limited type of nursing knowledge.

6.2.1.2.2 Feelings of inadequacy

The limited boundary in learning, which did not go beyond a specific and limited type of nursing knowledge, had in turn resulted in many students, including some of the nurses feeling inadequate about challenging others' knowledge. As explained by one nursing student,

"...how can we challenge if we don't have the have some foundation to build that challenge on?..."

Student 6 (Nurse) – Week 9/NCF/'Reflections on the module so far'

In this study, the feeling of inadequacy was a result of the topic in question being based on a limited, specific area of nursing knowledge. It was acceptable that any specialised nursing knowledge might not necessarily be familiar to all students, particularly the AHPs. Yet there was the fear of making mistakes, misinterpreting or being misinterpreted, but more so, the fear of the inability to display intellectual competence in a permanent text-based environment; all of which were similar to those found amongst students in previous studies (Burge, 1994; Curran et al., 2003; Hammond, 2000; Murphy & Coleman, 2004; Ross et al., 1994). Such feelings were not exclusively felt by the AHPs, but were also felt by some nurses. It was common for both nurses and AHPs as online students to view themselves as not having adequate knowledge and view themselves as not competent enough to carry on with the ongoing discussion.

"...Unlike many of the participants I also needed to bring myself up to speed on learning theories. So like others, I felt daunted, albeit in a different way by my fellow students. .."

Student 9 (Nurse) – Week 2/ CF/'The model, my scepticisms'

6.2.1.2.3 Demanding learning

Whilst students harboured the fear of making mistakes they also feared their inability to display intellectual competence. Many students including the nurses had reduced their concept of collaborative learning in asynchronous computer conferencing (ACMC) to didactic learning, whereby the emphasis was knowledge transferred from the experts to learners. As a result, students were very keen to be in the position to be able to present factual knowledge. If they perceived themselves as not being able to do so, they were prepared to work towards it by engaging in more offline reading.

“I have read and...”

Student 6 (Nurse) – Week 2/CF/’Role of e-moderator and 5 step model’

“I need to do more reading around the subject of e learning...”

Student 10 (Nurse) – Week 6/NCF/’Ground Rules: Being critical’

Students ended up becoming more interested in updating themselves on factual information from text books or evidence-based materials rather than critical discussions.

“... I can see myself getting a lot out of the module once I have done more reading, I have piles of articles printed off ready to read...”

Student 10 (Nurse) – Week 6/ NCF/ ‘Ground Rules’

“...a few of us keep reassuring the group that they will contribute more once they have read and know more about the subject...”

Student 11 (Nurse) – Week 8/NCF/’Reflections on the module so far’

This had then given rise to the feeling that online learning was demanding, just as it did in previous studies (Alexander et al., 2003; Cartwright, 2000; Hammond, 2000; Saunders & Heyl, 1988). For some students, this current online learning had become so daunting that students believed that they had never been able to come to grips with it.

“...To be honest I need to do a lot more reading around the subject of e learning so that the bits of the jigsaw that we are looking at week by week fit together better to offer a more cohesive view. Some of the problems is that I come onto the discussion board when I have a few minutes to spare then off I go and something else takes over, thus my train of thought goes. Even though I said I would set a day aside I haven't so I do this

work when I get the chance. Previous modules I have had the day off, ... thought about what the lecturer has said and ...read around a bit. (I have got the day off next Thursday to dedicate to this and to start looking at my assignment). Unfortunately I need time to collate my thoughts before offering a critical stance on issues and by the time I get to it the week is up and we are on to something else!!!!..."

Student 10 (Nurse) – Week 6/ NCF/‘Ground Rules’

“Just wondered if I'm the only mad one still on line at this time of night?? Trying to get my homework done for this week b4 trotting off for the weekend. Have to pack my bags yet as I leave straight from work tomorrow...”

Student 7 (Nurse) – Week 4/ NCF/‘Coffee Bar’

For others, participating in learning meant that there was no day of rest. Students revealed that this online learning had caused them to allow its related activities to encroach onto their weekends. In some cases, students felt that online learning had compelled them to utilise their odd hours. However, as evidenced from both the messages below, it appeared that students who had utilised the weekends and odd hours for online activities did not view them as time normally meant for learning, but for resting and relaxing. Yet an ideal way to learn did not seem to surface, students’ desire to relax at specific times in a day and/or week had occurred alongside with the existing desire to get on top with their learning. This suggested dilemmatic feelings generated in students, simply because students could not arrive at a satisfactory solution.

“Glad you had a good weekend and yes its Sunday night I am just trying to chill and chat up on the e-learning before work tomorrow. Glad to see that other people work at the computer on a weekends it makes me feel better as I sometimes feel I am last minute”

Student 12 (Nurse) – Week 5/ NCF/‘Coffee Bar’

“What am I doing here at 5pm on a Saturday?? This morning I gave 70 flu jabs and spent the afternoon sitting in front of this computer.”

Student 6 (Nurse) – Week 4/ NCF/‘Coffee Bar’

Such dilemmas by which a choice was required between the two options that have seemingly equal unfavourable effects on each other could easily trigger some

specific online learning behaviour. However, whether there were any specific readjustments made to students' online behaviour because of students' dilemmatic feelings was not clear. What was evidenced from the interactive patterns was that many students had ended up engaging themselves in less online participation. Superficial comments, such as "I agree" and "I like what you said" became common. Some students had even withdrawn from discussion altogether and became non-participating members commonly known as 'lurkers' in an online learning context (Salmon, 2003). The reason given by students was that they needed to be equipped with factual knowledge before they could participate comfortably in the online discussions.

"...I am more inhibited at putting my thoughts and comments onto the board until I feel happy that I can back them up with some evidence..."

Student 6 (Nurse) – Week 9/NCF/'Reflections on the module so far'

It was common to find students who saw themselves, lacking in any denotative knowledge withdrawing from online discussions as indicated in the following messages.

"..i have little(no knowledge of the area and am from a non-clinical background so I felt i couldn't comment on its accuracy/ease of learning..."

Student 2 (AHP) – Week 4/CF/'Resourcing elearning'

"really sorry to let you down on this thread, guys- but I am completely lost on this one and I think I could be standing outside our community of practice..."

Student 1 (AHP) – Week 4/CF/'Resourcing elearning'

6.2.1.2.4 Limited exposure to constructivist learning

The low participation rate of a few students had produced a knock on effect in discussions, whereby fewer and fewer responses were generated. Whenever a low participation rate of a few students began to appear in a discussion thread, a low participation rate of many other students followed. Hence, as evidenced from the quantitative analysis, discussion threads were short whereby topics in question were either not participated by any students or participated by just the same few nurses. Basically, it was not difficult for the majority of students to withdraw from participation. It would only take a few students to feel that they were not equipped with evidence-based or factual information to participate less or not participate at all for the whole idea of collaborative interprofessional online learning (IPOL) to collapse. The detrimental effect of a low participation rate of all students was far more likely to materialise in any collaborative text-based learning group which were typically small in size, as in the case of this group.

None the less, presenting information based on an objectivist view of knowledge was not pervasively seen in all messages. Certainly, in the NCF, and towards the end of some discussion threads in the CF, particularly in the last two weeks, informal spoken English had emerged. For this type of discourse, modulation of truths was evidenced. This was done with the frequent use of words like ‘however’, ‘nevertheless’, ‘usually’, and etcetera. Thus, in this conference, not all knowledge presented by nurses was denotative as evidence-based information. On some occasions, knowledge was presented in ways in which it was to be negotiated (page 190).

However, there was higher incidence of information presented as factual knowledge in the CF. Since this forum was where formal learning was expected to occur, students’ learning about the topic areas designed for this module were very much controlled in terms of the boundaries of knowledge. Moreover, informal spoken English

had only occurred, in a few discussion threads in the CF towards the end of the module, such that constructivist learning was minimal in terms of the topic areas. In this conference, constructivist learning which invited open and critical learning appeared to have confined to a social context in the NCF for peer support.

“...I feel I have grown and learnt from this weeks work subject, I realize that the peer interaction within the coffee bar is just as important as the weekly work in truely achieving the most out of this elearning module...”

Student 3 (AHP) – Week 5/CF/‘eLearning as an emerging pedagogy’

Apparently, the ACMC had persistently been used by all nurses and AHPs as a means to approach mastery of foundational knowledge.

6.2.1.3 Counter argument

The above findings seem to suggest that the ACMC tool might have been only ideal for students with little knowledge, who needed to build foundations. If this was the case, it explained why many students in previous studies had only valued ACMC as a medium for gaining information on healthcare issues (Andrusyszyn et al., 1999; Curran et al., 2003; Iwasiw et al., 2000; Moen et al., 2000). Undeniably, students in this conference had also revealed that they benefited from discussion which comprised knowledge that was denotative in nature.

“...I have found though, through trying to catch up with the programme, that having a face to face discussions is not essential factor to learning, as you can gain idea of other group members and are equally able to learn through their contributions...”

Student 7 (Nurse) – Week 2/CF/‘The model- my scepticisms’

“...I must thank those who have posted their views about the NHS, and it is from there, I came to learn more about the 'inside' story. Otherwise, my limited views from reading of reports will never be expanded. I will be blinded by onesided views and opinions coming from the top, rather than from people who are impacted by the policies in driving e-learning...”

Student 11 (Nurse) – Week 12/CF/‘Evaluating elearning’

Other than the acquisition of others' knowledge, students also revealed that the benefits they reaped from such a didactic form of learning included time saving in learning. Students explained that it was because they were able to download others' contributions, which had been made available for easy access.

"Having read others comments - especially downloading etc I saved myself lots of time by accessing the programme through the 'shared file' system - thankyou."

Student 7 (Nurse) – Week 4/CF/'Resourcing elearning'

"...efficiency can easily be achieved using this mode to exchange information..."

Student 11 (Nurse) – Week 6/NCF/'Ground Rules'

Based on these positive students' learning experiences, it seemed that the issue of nurses presenting information as denotative knowledge was not a problem that would always need to be solved. Certainly, the representations of knowledge differentials between nurses and AHPs were able to serve some social purpose. In this case, it had helped others to increase knowledge within a limited time frame, as imposed by the criteria set in the module. Learning was therefore efficient. Moreover, mastering of foundational knowledge was important to form a basis for further learning (Smith & Pourchot, 1998), that some students, especially those who had not yet acquired a broad knowledge base would benefit from didactic approach to teaching and learning.

The benefits of didactic learning in a competence-based model could not be disputed and therefore, it should not be disregarded. If didactic learning did not benefit learning, it would not have remained a dominant pedagogical means in formal education since the existence of education (Pennington & O'Neil 1994). Indeed, it was recognised that didactic learning was particularly useful in facilitating situations in which the salient aspects of teaching were relevant for learning (Smith & Pourchot, 1998). However, in higher education, especially at the post-qualifying healthcare level, such a didactic form of learning in which knowledge is gained in a passive mode, might not be

able to prepare nurses and others with enough creative and critical thinking skills to manage the complexities in today's healthcare system.

6.2.2 Form of texts: Written language and its effect on learning

6.2.2.1 Ways to present texts as written language

6.2.2.1.1 High lexical density/Genres of written nursing discourse/ Essay writing

Messages contributed by nurses resembled the original messages which were posted by the e-moderator in each topic area for generating student participation. Nurses' messages were generally lengthy. As indicated in the quantitative analysis, contributions made by nurses had a high average word count (CF:139.9; NCF: 79.35 - page 142-144). As discussed in chapter 5, as a result of the lengths, nurses' messages resembled written text rather than any conversational dialogue which is usually short as it needs to follow the 'next turn proof procedure' (Hutchby & Wooffitt, 1998).

Besides the lengths, messages from nurses resembled written text more, rather than any conversational dialogues because of their heavy use of lexical items as content words compared to their infrequent use of grammatical items as functioning words. This had resulted in a high ratio of lexical contents to grammatical items, giving rise to a high lexical density which is a characteristic feature of written text (Halliday, 1985). To recapture what had been observed in the illustrative examples in chapter 5, take for example the following text extracted from a typical discussion thread contributed by nurses.

“As the title reads, New York emergency room RN, a lot of the information may be Americanised, but it has information of many other countries including UK...”

Student 11 (Nurse) – Week 4/CF/‘Resourcing elearning’

In this sentence of 27 words, there is a high usage of lexical contents in the message. Of a total 27 running words, only 'As', 'the', 'a', 'of', 'may be', 'but', 'it', 'has' are grammatical items. This meant there are 16 lexical items and 11 grammatical items in this sentence and this composition of words gives rise to a lexical density of 16 out of 27, which is about 59.3 per cent. In another example as shown below:

“Co-ordination/communication-There are several National programmes happening simultaneously eg. NPfIT, KSF, WDC, NHSU yet until lately these have tended to develop independently...”

Student 9 (Nurse) – Week 3/CF/’A future of elearning in the NHS’

This sentence has 13 lexical items and 9 grammatical items in a sentence of 22 words. This text too, has a high volume of lexical contents, and hence a high lexical density of 59.1 per cent.

In the two examples given, the occurrences of lexical contents are more than those of the grammatical items and it is the high proportion of lexical words to the total number of running words that has resulted each sentence to have a high lexical density. Both of these characteristic features of written text, as identified by Halliday (1985) were commonly found in nurses’ texts. Nevertheless, as warned by Halliday (1985), written language is complex, and there were certainly more characteristic features to consider other than just its lexical density.

Indeed, what rendered nurses’ texts in the conference to resemble written texts was the high resemblance of their genres with those found in written nursing documentation. Although occasionally, nurses’ texts were injected with genres of written work; essay writing in higher education by the use of published references, to a large extent, many of the texts resembled the genres of nursing care plans and incident reports. Any forms of written text, be it comprising genres of the purest form of nursing documentation, or mixed with genres of academic writing, had very few dialogical

elements, simply because written texts were meant for one way communication (Fairclough, 2001).

Two important aspects of written text were that, written texts acquired a degree of independence both from the writing (in this case, type writing) and reading process and they were constructed with a particular readership in mind. Written texts are therefore oriented to particular receptions (Fairclough, 2001). In this regard, responses to any texts were highly dependent on the interpretation peers made from reading the messages. The interpretation by readers of written texts would in turn be largely based upon the common-sense assumptions and expectations which were the common-sense knowledge of that interpreter. Indeed, Fairclough (1989) who identified this common-sense knowledge as ‘members’ resources’ had claimed that they were required for interpreters to have in order to make sense of the written texts.

6.2.2.2 Students’ learning experiences

6.2.2.2.1 Students struggled to find relevance

As said earlier, many of the texts contributed by nurses reflected written text, the genres of which were nursing written records. Non-nursing students, such as the AHPs were not likely to have the ‘members’ resources’ that were uniquely nurses’. They were therefore not able to share enough required common-sense knowledge which ironically, they were expected to have in order to make relevant sense of nurses’ contributions. When AHPs hardly saw any relevance in the discussions, nurses’ texts tended to generate responses only from nurses. This was because nurses were more likely to have the required ‘common-sense knowledge’ which enabled them to share similar perspectives as that of the contributor. Hence nurses compared with AHPs were more likely to see relevance of the discussions, and would therefore respond.

However, it was apparent it was not only the AHPs who had not made sense of the ongoing discussions. On some occasions, nursing students had also struggled to find relevance in the discussions.

“I have struggled in the last 2 weeks to get anything at all as I have just not had time to read around the subject to be able to discuss further...I have decided not to read the comments made by others so until I have formed my own opinions”

Student 10 (Nurse) – Week 8/NCF/‘Reflections on the module so far’

There were many sub specialities within a single nursing discipline, each of which was based on its own unique specialised nursing knowledge (Cody, 2006). Therefore, any discussions which were nursing oriented would not necessarily be based on some ‘common-sense’ knowledge of nursing that could possibly be shared by nurses in general. Discussions by nurses therefore did not guarantee that they were always dialogical and coherent for all nurses alike. For all students, including some of the nurses, interpretation of nurses’ texts required students to have the appropriate ‘members’ resources’ which Fairclough (2001) highlighted as an essential ingredient for successful interpretation of texts in written form. Unfortunately, the required ‘members’ resources’ of a specific speciality in nursing was not something which all students would always have. In this respect, there was no difference in terms of the learning experience of nurses from that of the AHPs. To accomplish a successful interpretation of the texts may not have been realised by some nurses to an extent same as the AHPs. This explained why there were some nurses who have also appeared to have struggled no less than any of the AHPs in this learning. Evidently, from discussion in section 1.1, some nurses too, had to put in extra efforts in order to make sense of the ongoing discussion.

6.2.2.2.2 Students struggled to stay online

As discussed in section 1.1.2.3, when students perceived themselves as lacking in any denotative knowledge, they ended up doing more offline self-paced learning than online collaborative learning. From earlier discussions, it was apparent that not all students would just exclude themselves from the discussions. Some lurked and also, harboured feelings of inadequacy. However the so called perceived lack of denotative knowledge could be no more than just a lack of ‘members’ resources’, which was from the lack in understanding or appreciation of a nursing perspective in a sub-specialised nursing discipline. It was therefore perfectly acceptable, because students who did not have a nursing background or nurses who did not come from the same nursing specialities would, of course be unlikely to have knowledge of the specific nursing discipline, on which the discussions were based. Yet this lack in ‘common-sense’ knowledge of a specific nursing discipline was a grave concern amongst the students.

“...feeling that in order to study this way I would need to have the same level of knowledge myself...”

Student 7 (Nurse) – Week 2/CF/‘The model my scepticism’

Certainly, this form of inadequacy was easily amplified when students were already feeling that they lacked general understanding of denotative knowledge. When that happened, students ended up spending more time doing offline self-paced learning of the messages, leaving themselves with less time for actual online collaborative learning.

“I was finding that I spent all evenings and my study day researching the weeks discussions...”

Student 7 (Nurse) – Week 12/CF/‘Evaluating elearning’

Indeed in many of the discussion threads which were started by nurses, there was either low participation from nurses or no participation from the AHPs. It appeared that it was because students felt the need to first make out what was said by others

before they could respond. Students ended up engaging in all sorts of offline activities to achieve that. A student had voluntarily revealed that, instead of responding to peers online, she had saved their contributions into a folder, so that she could read and evaluate the contributions offline.

“...I have saved most of the groups comments to my now very cluttered desktop - and can peruse them at groundspeed...”

Student 1 (AHP) – Week 5/CF/‘eLearning as an emerging pedagogy’

Therefore, regardless of the reasons, whether there was lack of denotative knowledge or just lack of ‘members’ resources’ or both, so long, students saw no relevance or little relevance in the discussions, they were more likely to adopt a low level of engagement in online learning (Agostinho, *et, al.*, 1997). When participation rate was affected by the amount of relevance each student could make out from the ongoing discussions, whether it was AHPs or nursing students, student participation rate were affected just the same.

6.2.2.3 Minimal collaborative learning

From the above discussion, it was apparent that even when the lack in ‘common-sense’ knowledge which was nursing specific was perfectly acceptable amongst all AHPs and even some nurses, students’ lack of the specialised nursing knowledge had still become a grave concern amongst students and resulted in their low online participation rate. This was simply because students saw the important need to first find relevance of the discussion. When irrelevance was felt in the discussions, instead of participating to seek clarifications with peers in the virtual learning environment, students tended to retreat into their physical real world and engage in off line reading. In other words, the relevance of discussions were sought offline and out of the context of the collaborative online learning environment.

The above discussion seems to suggest that, when irrelevance of discussions was perceived, some students had tried to make sense of the discussions. However, there might still be some other students who would simply give up and did not even engage in self-paced offline reading. In this case, students were not only alienated from online participation, but also from offline learning. Putting aside the contentious issues of possible offline reading and learning, it was evidenced in the conference, whenever there was use of genres of nursing discourse, messages were rendered to have little relevance for many students such that the AHPs as well as some nurses who had then ended up with minimal online collaborative learning.

Unlike nursing discourse, messages which reflected the form of spoken English discourse were more dialogical. There was a modality of truth in the messages in that readers of the posted messages would see these messages as invitations for students to participate. The transitivity present in the spoken English form also further 'invited' all students to clarify issues in the discussions. It was apparent in this study that messages in the form of spoken English drew active participation from both nurses as well as the AHPs (Figure VII on page 194). However, these messages which took the form of informal language were far too few occurring to benefit students with more collaborative learning opportunities.

6.2.2.3 Counter Argument

It was apparent in this study that IPL was hindered by the interactions between nurses and AHPs in situations when messages from nurses were presented as written texts which reflected the nursing genres. This had led to a situation where unidirectional communication with passive giving and receiving of information being the predominant form of interactive pattern in the conference, particularly in the CF. However, while it was important to acknowledge that the CF was filled with online activities which were mainly resource giving and receiving, it was also critical to recognise that such activities did engage students in learning. Indeed, learning was not confined to only didactic online learning, learning had involved self-reflections of the online discussions and therefore, to some extent, the IPOL had been interactive in nature.

There is research information on the relationship between active participation and learning in asynchronous text based discussions to suggest that learning will still occur without active student participation (Beaudoin, 2002). This argument is based on the view that self-paced learning also involves reflection, as students are likely to reflect on the posted messages. In this regard self-paced learning will still be useful. This was in fact evidenced by students' own account of their positive learning experiences in this conference, which indicated that it was after having read the information purveyed by nurses, the students' way of thinking about the topic in question was expanded beyond the recipients' own thinking.

"...You have been a significant influence on my thinking in this module as well as a great encourager – as have you, Student 11..."

Student 1 (AHP) – Week 12/CF/'Evaluating virtual learning environment'

Therefore, it could not be denied that students who lurked would have engaged in a reflective dialogue with others' discussions. Indeed, without engaging in any online

discussions, students would still have learnt interactively by being audience to others' interactions (Beaudoin, 2002).

However, the interactive learning via a reflective dialogue was nothing more than that which occurred between the students and the posted texts. Any differing or conflicting knowledge from the different healthcare professional groups was never openly brought into discussion for a joint interprofessional view. The latter was essential for a whole new way of looking at the topics in question. Based on the fact that any topic in question which aimed to achieve IPL is complex, it would demand an innovative and a new creative multidisciplinary approach in exploring, before it could be appreciated and understood by the different disciplines. In situations when a dialogical reflection could not occur between the creators and the receivers of texts, discussions could never be extended for any innovative and creative idea to emerge.

As pointed out by Lloyd-Jones et al. (2007), the approach to IPL necessitated more interactive and discovery styles of learning. The authors (Lloyd-Jones et al., 2007) meant IPL was never just about two or more HCPs learning from and about each other, but it should be about learning with each other. Without the active participation from all students in the conference, even if students had learnt with each other, it would be minimal. If this was the case, radical and emancipatory aspects of IPL could not have occurred to its fullest extent in this conference. Knowledge was never expanded to its potential extent as much as it would have been, had it been shared collaboratively in the learning environment.

From the analysis so far, it was clear that IPOL was adversely affected by the way knowledge was represented. These adverse effects could sometimes be exacerbated in the conference. The next section explains how this was possible.

6.3 Third research question: Are there any codes or technical vocabularies in nursing discourse?

This second section of the chapter deals with the third research question. It deals with the types of codes and technological vocabularies that were commonly deployed by nurses in their language use. It discusses the effects of such rhetorical discursive acts on students' learning experiences by explaining how the use of various codes or technical vocabularies compounded the problems emerging from nurses' use of objectifying language in written form.

6.3.1 Nursing codes and technical vocabularies/Science terms

On a few occasions, technical vocabularies, derived from nursing were used in the conference. These vocabularies were commonly used by nurses in general. However, technical codes and vocabularies which were not widely known to nurses in clinical practice were also present in the conference. These were vocabularies and codes specifically used by nurses who held roles and responsibilities at strategic management level. Hence, it was likely that these technical codes were not only unknown to nurses at operational level, but they were also strange to many AHPs.

"...KSF ... WDC... NEYL..."

Student 9 (Nurse) – Week 3/CF/‘A future of elearning in the NHS?’

"...NHSU... WDC..."

Student 6 (Nurse) – Week 3/CF/‘A future of elearning in the NHS?’

"...clinical governance perspective..."

Student 8 (Nurse) – Week 7/CF/ ‘Communities of practice’

Besides using technical codes and vocabularies which were commonly used by an elite group of nursing personnel at the top or middle management level, scientific terms were also seen to be used by a minority few nurses.

“...Indeed this would appear to be an 'acid test' of the effectiveness of the emoderator!...”

Student 8 (Nurse) – Week 5/CF/‘eLearning as an emerging pedagogy’

“Oh yes, blended approach will at least give us some hopes in preventing deep vein thrombosis, pressure sores, backache, headaches, etc... and even the new diagnosis..... 'internet syndrome' (http://www.chinadaily.com.cn/english/doc/2004-02/12/content_305555.htm...”

Student 11 (Nurse) – Week 8/CF/‘Blended learning’

“... just look around us, the symbiotic relationship works well as it balance the ecosystem, by keeping a healthy relationship going. So long it is not parasytic, we should be...”

Student 11 (Nurse) – Week 12/CF/‘Evaluating elearning’

“...this is all getting a bit too metaphysical...”

Student 5 (Nurse) – Week 12/CF/‘Evaluating virtual learning environment’

6.3.1.1 Effects of learning

There was a general impression that the subject of science was for a minority few intelligent students (Lemke, 1990; Tobin & McRobbie, 1996). Nevertheless, when studies (Lemke, 1990; Tobin & McRobbie, 1996) were conducted to explore the unequal performances of students in science, it was found that students who did well in science did so, because they were predisposed to science discourse. These students were the ones who had the opportunities to participate in science discourse at home prior to participation in science discourse in a science classroom. In this regard, if nurses and AHPs were predisposed to limited amount of scientific terms, discussions which comprised scientific terms might automatically exclude many HCPs just as the way in which the majority of students were alienated from science. When scientific terms were used with any nursing technical vocabularies it would inevitably magnify the non-

dialogical element of written texts in the discussions. In situations when there were heavy uses of lexical items such as nursing technical vocabularies and science terms, students who were already experiencing the feelings of inadequacy from the use of factual information in written texts form, would withdraw themselves even further away from active online participation in discussions.

The above concern about the detrimental effect on learning from the lack of understanding of the objectifying language used by nurses might have been based on an extreme view that all nurses at operational level and all AHPs had little or no knowledge of these technical codes and scientific terms. However, even if it was agreed that this view about the technical and scientific knowledge of some minority students was far too absolute, no one could be sure that all students were familiar with all the lexical items that were mentioned in the discussions. Yet it was evidenced in the conference that the frequent use of these lexical items in discussions was not accompanied with the required clarifications. In using these technical codes and scientific terms, the contributor who was often a nurse had demonstrated to have not made any effort to explain what they meant. Even the e-moderator who had an important role to facilitate learning (Salmon, 2003) was not seen to have made any attempt to clarify their use. Hence there was strong evidence to suggest that these lexical items were used with the assumption that all student participants knew what they meant, when in actual fact, many students did not even have the faintest idea of what they were. Since these word problems could only be matched with prior knowledge of only a handful of nurses, those of whom usually had clinical responsibility at strategic management level, it was likely for the discussions to be attended by just the few nurses who were at a high professional position, just as they were in this conference.

6.3.2 Technical codes derived from e-learning

On many other occasions, on top of using nursing technical codes and scientific terms, technical terms derived from e-learning were also used by nurses.

“...I guess this issue would be covered in the initial f2f session...”

Student 7 (Nurse) – Week 10/ CF/‘Facilitating and managing the change to elearning in health and social care’

“...whenever your screen is frozen...hangs...press ctrl, alt & delete...choose to log out, shut down or end task...the screen appears dead...reboot the programme...”

Student 11 (Nurse) – Week 4/NCF/‘Technical Tips and discussions’

“ ...if you have constant freezing of the screen try defragging..all of these cause crashes...”

Student 5 (Nurse) – Week 4/ NCF/‘Technical Tips and discussions’

“...but MSN toolbar has a free download to block pop ups.”

Student1 (AHP) – Week 10/NCF/‘Technical Tips and discussions’

In the illustrative example given in chapter 5 (page 190), the technical terms were used in the CF towards the end of the module. They were therefore used in a context where familiarity of these terms was already acquired by students from previous online discussions. However, for discussions in the rest of the conference, as those shown above, the technical terms were often used in the NCF in the discussion thread; ‘Technical tips and Discussions’. This was a place where students who lacked the technological knowledge sought help. The discussion thread was indeed only established by students’ contributions, which were generated in response to peers’ queries about the use of the conference technological tool. Yet the use of these technical terms in these texts was similar to the use of any nursing technical vocabularies and scientific terms. They too, were used without any clarifications provided by the users to explain what they meant.

It could be argued that this module was about e-learning, and presumably, the way such fundamental technical terms were used for them to remain unexplained was not only expected, but was justified instead. This view was based on a reasonable assumption that students who embarked on an e-learning module would at least know what these technical terms meant. However, apparently many students who were participating in this online module were somehow similar to the healthcare students in earlier studies (Cragg, 1994; Lynch, 2001), but were different from studies conducted around the same time period (Lund et al., 2002; McKenna & Samarawickrema, 2003; Hurst, 2005). Many students in this conference did not have the necessary technical knowledge and skills. Such students' limitation was revealed by students themselves.

“Is it the same as Windows messenger?...I had no idea what it was...”

Student 7 (Nurse) – Week 4/NCF/‘Technical Tips and discussions’

“My computer skills were on parr with my soggy Yorkshire puddings”

Student 6 (Nurse) – Week 12/ CF/‘Evaluating elearning’

It was also evidenced from the profile of the students that many were still lacking the basic technological skills and knowledge, including those of which were required for learning in ACMC (Table 3.5 on page 113). Indeed, many queries about the use of the technology were mostly posted by students at the start of the module. Hence it might be reasonable to expect that many of the technical vocabularies derived from e-learning were still not known to these students, particularly in the early stages of student participation in this online conference.

6.3.2.1 Effects of learning

The lack of technical knowledge was a problem grave enough to cause confusion in students' learning in this conference.

“I thought I was going guns but I am having trouble navigating my way...causing me great confusion. For example,...abbreviations...icons of...”

Student 6 (Nurse) – Week 2/ NCF/‘Technical Tips and discussions’

Whilst students sought technological help from the e-moderator, many discussions were generated in response to the queries, but they comprised technical terms which were not explained. Clearly, students’ technological profile could only improve through active participation in ongoing discussions. Ironically, the use of these unfamiliar technical terms was not accompanied with the required explanation. The lack of technological know-how which inevitably became a barrier to collaborative learning could have compounded other problems derived from the use of technical nursing vocabularies and scientific terms.

Thus, the injection of technical terms derived from technology, had added another dimension to the problem of low participation rate. As discussed in section 1.1, students who saw themselves lacking in any denotative knowledge were already less likely to participate actively. When denotative knowledge was no longer just about nursing or science, but also about the subject area of technology, students who lacked the technological knowledge and skills were even more likely to forgo the opportunity to benefit from active participation for IPL. Since the problem with technology had emerged at an early stage of the module, the confidence of students for active participation was more likely to have been taken away from them right at the start of the module.

6.3.3 Students’ learning experiences

For any nurses who were not technologically competent they were not likely to have been deprived from as many collaborative learning opportunities as any of the AHPs. As discussed in section 6.3.1, large volumes of discussion in the CF adopted a focus of a specific nursing perspective and this provided enough bases for nurses to

participate in discussions. Hence, it was the AHPs who were not technologically competent that were more likely to be deprived from most collaborative learning in the conference. Indeed, in many discussion threads, it appeared that some participation from nurses was still evidenced, when participation from the AHPs was not found at all.

From the discussions so far, it was evidenced that nurses' texts tended to operate in a disjointed fashion. This was simply a result of the use of many terms possibly unfamiliar to the AHPs and to some nurses, which have not been clarified in the context of learning. Undeniably, this gave rise to the feelings of inadequacy and the feelings were likely to be magnified amongst the AHPs. However, nurses were no exception to these negative feelings, for they too were seen to have struggled to make sense of the ongoing discussion. This was because students regardless of their professional identity were all required to fill in the gaps with the 'members' resources' they ought to already have in common with the contributor before they could participate in the discussions. When the topic under discussion was based on a specific sub-specialised nursing context which occasionally required the understanding of science and technology, it was not likely that all students would be able to participate, for not all students had similar 'members' resources' that was required for them to do so. Hence, even nursing students were found on many occasions to have not seen any relevance in the discussion, and had also struggled to participate in discussion.

Consequently, active online discussions from students without the specific knowledge were minimal. In these situations, many alternative perspectives, particularly non-nursing perspectives which could have provided equally valid knowledge to the topics in question, were no longer possible. As a result, learning was never taken beyond a restrictive nursing context. This observation about controlled learning within a restrictive nursing context leads us to the discussion on its related issue of dominating effects of nursing discourse in IPOL in the next section.

6.4 Fourth research question: Is there any evidence of a dominating discourse in nurses-nurses and nurses-AHPs interactions in the constructivist learning environment?

This section deals with the fourth research question. It first explains the discursive patterns based on the quantitative analysis. It then explores the ways in which nursing language use in producing the conference texts which drew inferences from nursing documentations in healthcare practice. This section also discusses how this discursive act of nurses produces a dominating effect, whereby the power generated in nursing discourse had reproduced it to maintain the power differentials amongst the nurses and AHPs in the conference discussions. This section ends by discussing the resultant dominating effects of a few nurses on student learning experience. The discussion in this section are organised shown in the Table 6.2.

Table 6.2 Organisation of discussion in section 3

6.4.1 Interactive patterns as evidence of a dominating nursing discourse
6.4.2 Text Features as evidence of a dominating nursing discourse
6.4.2.1 Positioning of nurses as experts/resource givers and other nurses and AHPs as compliant resource receivers in the texts
6.4.2.2 Positioning of nurses as experts being reinforced in the texts
6.4.3 Effects of student learning
6.4.3.1 Didactic learning from experts
6.4.3.2 Uncritical acceptance of knowledge
6.4.3.3 Restrictive context of learning due to knowledge being judged by nurses
6.4.3.4 Limited learning due to some knowledge being marginalised

6.4.1 Interactive patterns as evidence of a dominating nursing discourse

As Fairclough (2001) puts it, discourse is dominant and is considered particularly powerful and influential when it had a large readership and also, when it was able to set the agenda. Messages from nurses appeared to have all the characteristic features of what Fairclough (2003) described as a power dominating discourse. As revealed in the quantitative analysis of students' interactive patterns, many discussions initiated by nurses were actively responded by nurses. Without a shadow of doubt, there was a large readership in the nurses' messages.

Besides having a large readership, there were also some signs of nurses' dominance on nurses-AHPs interactions. There were obvious efforts by nurses to control the direction of discussions. In many of the discussion threads, it appeared that many MBPPs were still created by nurses despite the fact that ongoing discussions were still being established based on the earlier MBPPs created by the AHPs. The texts from nurses continued to form powerful dominating discourse when many of these duplicated parent postings created by nurses generated many more responses from the participants, particularly from the nurses themselves, than those created by the AHPs. As a result, far lengthier discussion threads than those initiated by the AHPs were created in the conference. Due to the effects of intense participation in discussion threads initiated by nurses, the agenda of the entire conference appeared to have been determined by the nurses. These interactive patterns were the initial indications of nursing discourse as not only being dominating but also powerfully dominating.

6.4.2 Text features as evidence of a dominating nursing discourse

6.4.2.1 Positioning of nurses as experts/resource givers and other nurses and AHPs as compliant resource receivers in the texts

The online activities by which nurses' messages were initiated and subsequently responded to by nurses would have only been enough to produce a dominant effect of nurses' messages in nurses-AHPs interactions and might not have been in a nurses-nurses interaction. Seemingly, this was not the case. Dominating discourse was not seen in nurses-AHPs interaction alone, but also in nurses-nurses interactions.

As discussed in chapter 5, in care planning, nurses as primary nurses were inevitably constructed as the experts, through the process of producing a care plan as a blue print to guide practices of all other nurses and AHPs. In the case of incident reporting which had also been discussed in chapter 5, its sole purpose was to request additional specialist treatment and analysis of an incident which had occurred out of the ordinary routine (Dunn, 2003). In this regard, the genres of incident reports also had the ability to construct an impression of an expert nurse. In fact, this impression could easily be augmented to an authoritative expert based on the fact that any HCP who produced an incident report was expected to have both clinical and organisational knowledge, nurses and usually the primary nurses of the patients, and not any nurses or AHPs were given the responsibility for reporting all adverse clinical incidents.

Whilst the image of nurses as the authoritative expert was constructed in these two types of nursing discourse, namely care planning and incident reporting, nurses' texts in the conference were shaped by the socially available repertoires of nursing genres, such that the genre of the MBPPs and many of the SIPP created by nurses in the conference reflected the genres of these nursing discourses. Nurses' text therefore operated like two types of nursing discourse. They did so by tapping into the tacit understanding and common sense assumptions of the HCPs in which nurses were the

experts. Referring to Lyotard's (1984) view on denotative knowledge again, according to him the acceptability of denotative knowledge was also its ability to give rise to an expert and professional class. This explained why knowledge of some social professional groups could be more 'official' than others and could command more acceptability for legitimate sanctions (Jordan, 1997). Based on Lyotard's (1984) view, nurses' messages which were rendered to appear as denotative knowledge seemed to have enabled nurses' messages to operate in ways that information exchange was by weight of the so called evidence-based information, when it was actually by ways which invoked an existing ideological view of nurses as the knowledge expert in the two forms of nursing discourse. Consequently, the topics in question were not opened for negotiation and discussion, and respondents were passively receiving knowledge and information given by a few nurses. Evidently, nursing discourse as a dominating discourse was so powerfully influential in this conference, such that it affected the nurses-AHPs interactions as well as the nurses-nurses interactions.

6.4.2.2 Positioning of nurses as experts being reinforced in the texts

However, nurses as the experts with the ability to supply objective evidence-based information alone could not explain how nurses' texts could so easily enlist the respondents' trust for authority. This was seemingly so in all cases where the so called personal accounts and views of many other (nursing) staff members, which had been supplied as evidence to support arguments, were a few narrative 'case-studies' gathered from the nurses in their clinical practice or teaching practices in higher educational institutions (HEIs). These so called evidence-based personal experiences were nothing more than just some ad-hoc encounters. For that, they could only be taken as useful pointers for consideration and for expanding discussions. Yet, encounters based on a personal perspective, which was usually just a partial view of the phenomenon were

taken as generalised knowledge and worse, ‘non-contestable truth’, whereby consensus on any topics in question was achieved without having nurses’ contributions challenged or evaluated in the conference.

One could not deny, when experts’ views and opinions or some published work in the field of the topic in question were quoted to support argument, they would have helped to reinforce the authority of nurses as knowledgeable resource givers. However, it was the lexico-grammatical patterns and the tying words in many nurses’ messages, particularly the scientific and technical terms, which invoked the discourse of science and technological science that had reinforced the position of nurses as the legitimate authoritative knower – an ideological concept which was already established in nursing discourse.

The frequent use of both technical vocabularies and scientific terms did not just add objectivity but more importantly, authority (Tobin & McRobbie, 1996). The use of technical vocabularies and scientific terms in nurses’ texts were likely to be rhetorical discursive acts to not only present knowledge based on some kind of objectivist’s view, but also to represent knowledge based on an authoritative view. Indeed, on some occasions, such discursive rhetorical moves were made explicit by nurses to remind all respondents the authoritative position nurses held in relation to the topic in question.

“I have just introduced an I desk (fold up desk in the wall) in the division of medicine at my hospital so that all staff have 24 hour access to a computer that doctors aren't using to look up results or email their friends at home. A positive step in the right direction i think ..”

Student 10 (Nurse) – Week 2/CF/‘What is e-learning?’

“... I no longer clinically based, and given I am tasked with being the lead for the introduction of e-learning across the Trust...”

Student 9 (Nurse) – Week 3/CF/‘A future of elearning in the NHS?’

“Being a Community Specialist Practitioner I work closely with Social Services and we obviously have mutual clients. I regularly need to speak to the relevant Care Service Managers regarding issues around practice and joint working in general as well as ways to move service provision forward...”

Student 8 (Nurse) – Week 7/CF/‘Communities of practice’

“I am still feeling nervous just in case I present myself inappropriately as a result of unsuccessful role switching from a e-tutor in another site where I lead a module to a e-learner here”

Student 11 (Nurse) – Week 2/NCF/‘Reflections on the module so far’

“I now feel I am getting to grips with it all and can see where each activity is part of a jig-saw to consider in not only developing modules with e-learning components but as a facilitator...”

Student 12 (Nurse) – Week 9/NCF/‘Reflections on the module so far’

It was obvious that, the authoritative effects of nurses’ texts were accentuated by their specialised and/or authoritative positions in clinical settings or educational institutions. Nurses were thus invested with the authority to contribute views which were automatically not subject to discussion or verification by the addressees. As a result, the majority of students, especially the AHPS, all of whom were not functioning at health management level or in higher education, had automatically found it hard to challenge the views presented by these nurses.

Hence, other than the explicit use of referencing and utilising of technical and scientific terms, the feature of nurses’ messages at the lexical level was the critical characteristic of nurses’ text that had helped most with nurses’ claims to contextual knowledge based on authority. On some occasions, the claim was not as overt as the few extracts given above. The lexical items which helped to make these claims were dropped in between the texts so that they blended with the texts. By doing so, the claim to authority could ease its way smoothly into the impression of the addressees. Take for example the following message:

“...I would hope the support mechanisms of the chatroom and discussion board will overcome this potential problem so that everyone will feel comfortable to air there views in a non-threatening, Working in Primary Care in a Teaching GP Surgery which is linked to the University Medical School, I hope this form of learning might have a part to play in the integration of teaching...”

Student 6 (Nurse) – Week 2/CF/‘What is e-learning?’

The type of surgery, in which Student 6 was employed as a practice nurse, was not necessary information in the discussion of her views about how e-learning could be introduced to promote work-based online teaching and learning. Despite that, the information which displayed her elitism due to her affiliation to a teaching general practice surgery was supplied. It was done in a way that it blended with the text to serve as an important means for student 6 to create an authoritative impression of herself in relation to the topic in question. As such, the relationship between the contributor who had the authoritative knowledge and the topic in question which required the authoritative knowledge to solve was established. Indeed, consensus from participants was achieved in this message; there was no sign of any response to contest the knowledge. It could be seen that consensus from participants was obtained through persuasion which appeared to be working through evidence and appropriate reasoning, whilst in fact it was working through non-contestable nursing knowledge via a dominating nursing discourse. This was indeed a common way by which any perspectives offered by nurses (about any topics in question) to remain unchallenged by any of the respondents, including the nurses themselves.

6.4.3 Effects of student learning

6.4.3.1 Didactic learning from experts

As discussed in section 1.1, it also appeared that knowledge in nursing discourse, presented in the form of the denotative knowledge was based around human experience. However, nursing texts were not part of any social bond. Competence and

knowledge tended to reside with the senders and not the addressees and/or receivers. Hence, the ‘hidden’ ground rules in messages which took the form of nursing discourse was online discussion involving only unidirectional communication where knowledge transfer was from the knower (the nurse as the original contributor of messages) to those who presumably were ignorant and lacked competence (other nurses and AHPs on the receiving end).

It appeared that the unidirectional transfer of knowledge was possible as it was done in the best interest of those who needed to learn from nurses. Nurses were therefore more active in contributing knowledge. This online behaviour reinforced the concept of nurses as the source of knowledge. In the process of active knowledge contribution, knowledge was also frequently represented by nurses as objective information in an aperspectival world as described by Gebser (1985), which further substantiated nurses’ claim to expert knowledge. Indeed, all the discursive acts had continued to reinforce the situations that led to them, so much so that nurses were eager to have a structured learning experience that was only available in traditional formal learning which emphasized teacher-control and learner compliance.

“I feel better now that we are getting into the work...As prior to this, I felt it was all a bit chaotic and frivolous...”

Student 5 (Nurse) – Week 2/ NCF/‘Reflections on the module so far’

In many instances, online messages initiated by nurses seemed to reflect what Gebser (1985) had warned us about how our knowledge had become devoid of magical and mythical wisdom, that it had long been tarnished with the slogan ‘knowledge is power’, to render it as a means to control and dominate. However, Kukla (2006) once said, aperspectivity of one’s ‘warrants’ was not a precondition for securing the objectivity of one’s claims. As clarified by Kukla (2006: 1) in her own words,

the universal accessibility of reasons was not a precondition for the legitimacy of any actual warrant but, rather a regulative ideal governing inquiry and communication.

Indeed in this conference, despite the evidence to suggest that nurses had used knowledge as power, there was not enough evidence to indicate that nurses had consciously used knowledge as power to dominate the learning practices. As evidenced in this study there was frequent use of objectifying language by nurses to represent knowledge in an aperspectival world such that learning had become very much about producing and accumulating factual information. Such resultant online learning behaviour reflected learning which existed in a rational world whereby socially constructed knowledge was centred on the need to know everything rather than to broaden and deepen understanding through wisdom and a sense of inquisitiveness (Midgley, 1989).

This explained how the conference developed for formal learning about e-learning, which was based on the notion of a collaborative approach to learning, had inevitably resulted in some students, mostly nurses to collaborate as resource givers while causing others to cooperate by either assuming the role as resource receivers or retreating from discussions altogether. Indeed, whilst formal didactic learning was embraced by nurses, a general lack of appreciation of a constructivist approach to learning was evidenced amongst all the HCPs. Consequently, some nurses as legitimate knower had dominated the conference discussions continuously by giving resources intensely whilst other nurses and the AHPs remained as dominated learners, who were content in receiving passively from a few nurses.

“...My fellow students have contibuted more to my learning in this environemnt than they would of been able to in a classroom (even if it is just because I can print/save discussions and use/revise infomation later)...”

Student 3 (AHP) – Week 12/ CF/‘Blended learning’

“...Thanks e-modrator and to the rest of you, I am sure I will learn loads more when I go back and read the comments for the assessment process!...”

Student 10 (Nurse) – Week 12/ CF/‘Evaluating elearning’

However, based on Fairclough's (1989) concept of dominant discourse, any dominant discourse which was coercive could become natural and legitimised when it was misrepresented to be serving the best interest of the dominated. Apparently in the conference, knowledge differentials amongst the HCPs implicit in nursing discourse were created in the conference from its use, which then continued to maintain the knowledge difference between the students. The latter had in turn resulted in a few nurses to maintain the status quo as authoritative experts such that they could continue their role as resource givers, while others slipped into a complementing role as resource-receivers to learn in no other way except to continue receiving faithfully. In fact, for those who were feeling inadequate and needed to be equipped with the expert knowledge, they welcomed the passive and unquestioning receiving of knowledge from nurses. When interests of the dominated appeared to be better served through the process of didactic approach in learning, the latter was likely to be expected by the dominant and desired by the dominated on a continual basis.

Ultimately, online interactions based on a traditional view of formal learning were upheld by all the participants. In this way, the perspective of a nurse as someone who was superior in knowledge and in a legitimate position to convey knowledge, that was constructed in practice was perpetually reconstructed by all HCPs in the conference. Jordan (1997) once warned that in the process of a particular kind of knowing becoming legitimised as authoritative knowledge, all other kinds of knowing would be devalued and even dismissed. In this regard, in the presence of intense didactic learning, any alternative views, especially those which were non-nursing which might have been as valid as nursing knowledge were not contributed, hence not considered. A holistic view of the topic in question for any meaningful judgement could not have been achieved in this conference.

6.4.3.2 Uncritical acceptance of knowledge

As discussed earlier, when knowledge was contributed by a nurse of a distinct professional health discipline, acceptability of the knowledge would be even more easily gained without it being analysed or evaluated. On some occasions especially towards the end of the module, any narrative 'case studies' given by nurses to serve as evidence-based information were not even needed in nurses' messages to gain acceptability. This was because nurses had been constantly constructed as the experts in many earlier messages, such that in later discussions, knowledge presented by nurses would be able to work through its appeal as denotative knowledge without having the need for nurses' continuous effort to substantiate their claims to expertise.

This seems to suggest, as discussion went on, all HCPs were socialised into having the ability to work out the implicit assumption in nurses' text that nurses were the authoritative experts. This is explained by Fairclough's (1989: 84) concept of ideological common sense:

common sense in the service of sustaining unequal relations of power.

In the case of this conference when discourse was to construct and to reconstruct perspectives through the ongoing interactions in an IPL group, nurses were inevitably constructed and reconstructed as the experts with superior authoritative knowledge. Indeed, the process of construction and reconstruction had sustained the implicit power relations between nurses and between nurses and the AHPs. In other words, through the processes of making inferences of the 'common sense', an ordinary but widely shared implicit philosophy or ideology of nurses as the authoritative experts had come to be accepted as a 'reality' in the conference. Consequently, the perspective of the nurse as an expert was perpetually constructed to an effect that nurses' position as the authoritative experts had become even more pronounced towards the end of the module.

According to Jordan (1997), knowledge which counts is that which is consensually agreed and constructed, and it was this type of knowledge that becomes consequential. This meant, knowledge of nurses as the experts was likely to reside with students who have been responsible in discursively constructing the expert image of nurses. Since knowledge of nurses as the authoritative experts was co-constructed by those who participated in the online discussion, in which case, it was the majority of the students, albeit messages from nurses had continued to be no more than just examples of a partial perspective, they have every capability to emphasize and reinforce nurses' authority. In this regard, knowledge essential for learning was indeed one which added weight and count rather than one which was correct (Jordan, 1997). Take for example, a message that was contributed by a nurse towards the end of the module:

".. it's all evidence-based from personal experienc and published literature..."

Student 11 (Nurse) – Week 12/CF/‘evaluating virtual learning environments’

This message had drawn upon nothing except a display of the caption which illuminated an upheld notion of an ontological significance in evidence-based nursing or otherwise, empirical objectivity in academic work. This message was created to give an impression that the earlier messages by the same contributor, Student 11 were all based on some kind of case studies in the empirical sense. However, examples given in previous messages from Student 11 were drawn from only a few personal encounters. There was no clear indication from any single part of all earlier messages that they were provided with reference to published academic work or empirical research studies. In this discussion thread, all that was present in the contributions made by Student 11 was some narrative accounts based on personal experience and this final bold claim in the above message. Apparently, the claim in this message was made despite its lack of empirical foundation. Yet, it was able to gain legitimate grounds in claiming ‘truth’ and even, gaining acceptability with no difficulty. This was evidenced when this text

managed to obtain an agreement from a respondent who had not displayed the slightest indication to challenge the claim.

“Again Student 11 I have to agree with you there...”

Student 10 (Nurse) – Week 12/CF/‘Evaluating virtual learning environments’

From the opening word “Again”, it was clear that such compliance was not a one-time event. Apparently, the discursive move was a repeated act by student 10 as the respondent. Such an act of compliance was seen to have already permeated the entire conference (section 1.1.2) and was indeed an ever-present subliminal phenomenon in this conference.

Apparently, discourse is especially powerful when it suggests ‘social facts’ such that their meaning was only obtained within the context of the discourse itself (Fairclough, 1992). The above example had certainly demonstrated that this was the case with nursing discourse. In this instance, the social fact that nurses were the legitimate experts in knowledge was suggested in nursing discourse, by which the same meaning was obtained within the context of the message. Apparently, when the online messages reflected the genres of nursing discourse, the implicit power was circulated between all nurses and AHPs, who underwent and exercised the power simultaneously to become the type of learners, through the effects of the power between the individuals. Hence, the ill effect of a dominating discourse on students’ learning in which a nurse was constructed as an expert was never exclusive in nurses-AHPs interactions, but also present in any nurses-nurses interactions. In other words, the implicit power relations were subjected to all the HCPs, such that the AHPs were not alone in being dominated by nurses who use nursing discourse for them to become compliant learners. Nurses too, had become uncritical believers who unquestioningly accepted what another nurse had said as truth.

6.4.3.3 Restrictive context of learning due to knowledge being judged by nurses

From the earlier discussion, knowledge was accepted without being challenged, simply because nurses were constructed as the ones having the legitimate and authoritative evidence-based knowledge. When knowledge was about a specific nursing discipline, it was not likely for nurses who were from another discipline to contest knowledge of a legitimate knower. Hence, the views first initiated by a nurse - especially a specialist in an authoritative position by employment - were usually not contested, but instead they were often strongly supported.

There was no doubt that the truths of a statement were the criteria in determining its acceptability (Lyotard, 1984). However, it was the legitimating rules for knowing that tended to be denotative (Lyotard, 1984). Inasmuch as authoritative knowledge is consequential (Jordan, 1997), the position of nurses as experts had automatically allowed nurses to have also assumed authoritative knowledge of the legitimate rules for knowing. In terms of clinical practice, the use of standardised nursing language which facilitated the development of autonomy of nursing practice over self-mastery of own practice had resulted in nurses assuming the autonomy in deciding patient benefits (Mrayyan, 2005). In a similar way as in the case of this online learning, the traditional way of formal education whereby reality was determined by passive accumulation of facts (Kelly, 1970) from nurses was exercised in the conference; the latter was accompanied by another aspect of a traditional way of formal education; an authoritative teacher role which included teachers' legitimate role in assessing others' way of knowing was also found to be assumed by some nurses.

In messages that took any two forms of written nursing discourse, a divide between nurses or AHPs were persistently created such that a minority few nurses and AHPs were continuously perceived as those without the knowledge and therefore required to be governed by the rules of knowing sanctioned by a few dominant nurses.

This was then complemented by nurses putting themselves in a legitimate position to judge others' learning. Sometimes, this was even done in disguise to affirm others' view or to congratulate others on something they said or achieved.

"...You are also right that staff should not be wearing headphones when caring for patients. Good point and definitely noted."

Student 9(Nurse)/Week 8 – CF/‘Blended learning?’

"Good on you Student 9, I'm glad that you're finding your niche here..."

Student 11(Nurse)/Week 8 – CF/‘Blended learning?’

On other occasions, nurses were more explicit about their authoritative assessor position, that they even decided on the consequential actions needed by others for learning:

"You're absolutely spot on...before you...you must...Your comment on...was a good one..."

Student 5 (Nurse)/Week 3 – CF/‘A future of elearning in the NHS?’

In general, nurses had no reservation in assuming such authoritative position as a teacher in the conference.

In Foucault's (1973) writing on the clinical gaze in the birth of the clinic: An Archaeology of medical perception, he explained how physicians were able to retain the esoteric abilities in making patient observations: this ability was once thought as owing to physician's ability to make objective assessments, was actually the authority given to create on the patients' body these objective assessments. This was how the power of physicians doing the observation was reinforced and reasserted. This type of observations made by the physicians had long been fixed upon patient observations in the context of nursing practice. In the nursing process and incident reporting, nurses were expected to judge patients' outcome mainly to determine the nursing interventions and patients' course of actions, both of which could of course be materialised only if they were deemed appropriate by the nurses who assessed and judged.

However, it ought to be appreciated that the purposeful authoritative observations made by nurses were underpinned by the notion of caring in professional nursing practice (Roy & Jones, 2006), the latter was embraced by many nurses. This was evidenced when help as a form of nursing care which replaced patients' independent self-caring with nursing interventions was commonly practised by nurses, largely in the interest of frail and helpless patients. In situations where nurses were not able to practice caring, they could even become worn down (Swanson, 1999).

In a learning context, the practice of caring by nurses was not expected to be any less than that seen in practice. In fact, such nursing practice appeared to have been intense in this conference. As discussed earlier, nurses did not seem to have any reservation in sharing what they knew and were very keen to fill others with large volume of factual information which nurses previously acquired. In this regard, the purposeful authoritative clinical observation which was replicated in this conference and perpetuated in nurses' texts could have been influenced by nurses' notion of caring just as much as the way in which nurses shared factual information.

Indeed, the extract of a message contributed by nurses given on page 255 was typical in the conference. The respondents being positioned as the assessees needing nurses' observations were common, whereby categorical modality such as "you must", "you should" and "you ought to" were intensely employed by nurses. Such absolute certainties through the use of categorical modality which assumed unquestioning peers' compliance with nurses' plans had reinforced nurses' authoritative position and their legitimate power to judge respondents' learning. This in turn, helped nurses to secure continuous control of the agenda of the online discussions.

Such messages based on authoritative observations underpinned by the notion of caring was carried on by nurses even towards the end of the module. When many students would have already been equipped with the knowledge about the use of the

technical conferencing tool, nurses were still seen to be providing information in an intense manner. This observation is illustrated in the following extract:

*“..this is what the **options** were for...instead of opening each document...what we can do is...for people who...do the following: 1...2...3...For those wish to...do step 1, 2, 3 and then continue 4...5...6...7...8...”*

Student 11 (Nurse) – Week 12/ CF/‘evaluating virtual learning environment’

However, notice that there was one distinctively different lexical choice made in this text. Strong categorical modality was not used. Nevertheless, despite the difference, this message was similar to previously contributed messages which involved the use of categorical modality. Through the listing of the appropriate actions expected of the addressees, the message had conveyed a force of ‘toughness’ and authority to rally others into a specific set of actions determined by the nurse.

If this online behaviour was indeed a result of nurses’ enthusiasm to practise caring, it could not have been a coercive act being mistakably recognised as something that was required to implement in the best interest of those who needed help. In this view, the phenomenon of the didactic approach to learning would not have been any local legitimising of a coercive act of nurses. However, any possibly good intentions in helping fellow co-participants to acquire knowledge, caring being practised in the conference by nurses could cause others to feel inadequate and less able. As online discussions progressed, it might even result in others to perceive oneself as forever needing the help from the authoritative expert, whose agendas and none of others were important to be met. The end result was not different from that of the coercive act as described in section 3.3.1 that it had also resulted in some detrimental effects on learning. In this case, it was restricted learning.

6.4.3.4 Limited learning due to some knowledge being marginalised

When there was some perception that the nursing discipline was the only legitimate place where expertise and authoritative knowledge resided, and when there was perpetual construction of that perception, any lists of prescriptions initiated as recommendations, could easily be modulated as instructions, if not orders and commands. This produced yet another dominant effect of nurses as being the authoritative experts. The resultant dominant effect of nurses had certainly produced another reciprocal negative effect on learning, such that the ongoing online discussions were in line with no other views other than that of nurses’.

The fact was in nursing discourse knowledge was specifically about some kind of nursing knowledge that the agenda of discussions of which subjected to nurses’ judgement, would automatically be that of nurses’. Consequently, discussions would only invite nurses who shared similar nursing perspectives and exclude any HCPs who were without that particular nursing knowledge. It was therefore clear how the positions of nurses and AHPs could be constructed through the lexical choices in nursing discourse for it to exert a powerful dominating effect such that the agenda of the discussion was perpetually kept close in line with that of nursing which supported a nursing view. As such nursing discourse had every capability to render the texts to become extremely non-dialogical and incoherent particularly for the AHPs, such that knowledge was continuously built in the direction as deciphered by nurses to fulfil the nurses’ agenda.

However, whether the respondents were potentially an AHP or a nurse, the texts were basically non-dialogical whereby knowledge presented by nurses was not to be contested but to be passively received, for it had come from an expert. Consequently, learning was about assimilating and accommodating to the existing ways of thinking

and acting. When alternative thinking was not encouraged, other aspects of the topic were not considered and certainly there was no expansion in learning.

Although views from one single discipline might have been useful for learning, without the view presented in the very first MBPP/SIPP being interrogated, no new knowledge could emerge. As a result, nurses' own knowledge had also remained limited. When there was no participation from the AHPs, nursing knowledge was not being enabled to be examined in light of the knowledge of other healthcare disciplines, simply because the views of the AHPs which were equally important and valid for learning were marginalised and dismissed. As a result, alternative non-nursing views were not taken into consideration to help expand nursing knowledge.

In this text-based learning environment, IPL with an aim to remove the rigidity in making sense of the ambiguous cues created in the process of specialisation (Bateson, 1994) was not achieved. Despite the use of interdisciplinarity, students were never encouraged to engender a broader view towards a kind of critical and creative thinking which were sought-after by those who promoted IPL. As such, not only was the extent of content knowledge limited, critical thinking skill in problem solving and decision making and the ability to make complex clinical judgment, were also unlikely to have been developed to its fullest extent in this conference. The next section will now discuss the ways in which the rigidity through the process of specialisation was strengthened instead of removed in a text-based learning environment, when nurses were involved in IPL with AHPs.

6.5 Fifth research question: Is there any evidence of attempts being made by nurses to make learning accessible/inaccessible to others?

This section attempts to answer the final research question. It focuses on findings gleaned from the analysis that suggested some evidence of attempts made by a few nurses in making learning accessible/inaccessible to others. It does so by discussing the effects of the dominating effects of nursing discourse on accessibility to learning.

Discussion first explores the effects of using nursing discourse for online discussion, to reveal how learning had come to rely on the ability of individual HCP to share nursing discourse. It then continues with a discussion on the effects on student learning experience. It does so by explaining how the use of nursing discourse could result in some views being endorsed and valued, while others were marginalised and disregarded. This section ends by discussing the extent of accessibility to learning in terms of students IPOL experience. The discussions in this section are organised as shown in Table 6.3.

Table 6.3 Organisation of discussion in section 4

6.5.1 Seeking nursing membership
6.5.2 Student learning experience
6.5.2.1 Uncritical discussions
6.5.2.2 Limited participatory access
6.5.2.3 Restricted context of learning
6.5.2.4 Limited context of learning
6.5.2.5 Limited amount of collaborative learning

6.5.1 Seeking nursing membership

Nursing discourse was the result of the attempts made by nurses in search of an alternative discourse to medical dominance. It is a specialised discourse in which nurses participated to construct social meaning in terms of quality patient care, rather than disease curing (Yura & Walsh, 1973). Whilst nursing discourse emerged as a hegemonic discourse to resist any medical dominance (Hamilton & Manias, 2006), adverse incident reporting and particularly care planning have emerged as means for nurses to participate in a hegemonic discourse as an alternative discourse to medicine. Thus, besides the functional role in nursing practice to achieve quality patient care, nursing discourse via care planning or adverse incident reporting also had an important role to signal membership in nursing.

In this study, there was evidence to show that many discussions reflected the genres of nursing written records of care plans and incident reports, whereby the 'common sense' knowledge and tacit knowledge shared amongst nurses in the form of nursing discourse was continuously operated to help sustain nurses' ongoing discussion. This finding was consistent with the notion of membership and discourse, whereby the process of colonisation occurred when people commit themselves to a discourse community in the presence of an audience (Goffman, 1959). In this online learning situation, it was evidenced that the discourse community did not comprise all the HCPs, instead it was just a few dominant nurses; the audience may not have included the e-moderator alone, but also any dominated nurses and AHPs, who rarely participated. This observation suggested that nurses' active participation in discussions which were in the form of nursing discourse was to signal membership in nursing.

Indeed, throughout nurses' texts, there was frequent use of the collective pronoun 'we'. As discussed earlier, the pronoun 'we' was used to establish a good evidence to support a universal perspective in nurses' messages to achieve the effect of

acceptability. However, it did have an additional function, and that it was to achieve selective membership. The pronoun 'we' was often used to create a divide between nurses—the authoritative knower and the addressees—those who did not share 'common sense' knowledge of nursing. Hence the use of the pronoun 'we' had the effect of casting out the outsiders as audience in the discussions. The membership in nursing which was established in the use of nursing genres in nursing discourse was thus, reinforced by the accompanied use of the pronoun 'we' in nurses' online contributions. The membership by which nurses sought had promoted a segregation of the online participants. This inevitably posed adverse effects on the subsequent responses to nursing messages, thereby affecting learning. The effects of learning are discussed in the following sections.

6.5.2 Students' learning experiences

6.5.2.1 Uncritical discussion

Membership sought after by nurses in the constructivist learning environment was due to nurses' feeling the need to belong in a mixed healthcare group. There was evidence to suggest that a sense of belonging was important for students in this conference. (More evidence of this is discussed in section 4.2.3.). This sense of belonging as an important essential ingredient for positive online learning experiences was not new. It had been found in previous studies about students' online learning in multidisciplinary healthcare groups (Atack & Rankin, 2002; Andrsyszyn et al., 1999; Cartwright, 2000; Cragg, 1994; Hurts, 2005).

Interestingly, the intense desire to belong that could cause one to slip into feeling the need to conform (Little et al., 2003) was evidenced in this study.

“..I wondered, in nurse education, how far liberal learning can go?? As in, we can learn what we like - however our interpretation and construction of meaning needs to fit within the constraints of the code of professional conduct, human rights, ethics, morality etc. We aren't just that free to construct our own meaning...”

Student 7 (Nurse) – Week 5/ CF/‘eLearning as an emerging pedagogy’

As a result, there were many students who did not see the need to question or challenge discussions even if there was an obvious aim to meet group consensus of nurses.

“...Although its not critical to agree I do agree with Student 7 and feel because some of us work in the same environment we may have the same thoughts...”

Student 12 (Nurse) – Week 7/NCF/‘Ground Rules’

This had then led to uncritical and stereotyped views of a singular professional group. These findings coincided with the results in earlier studies about online IPL (Bacigalupo et al., 2001; Becker et al., 2000).

This similarity with previous studies may not be at all surprising. This was because the active unity of groups of people would never exist if certain uniformity of thoughts, actions and certain attributes of the members of the group was not present (Roy & Jones, 2006). In this regard, students who were positioned as co-participants in nursing discourse were those who successfully became holders of similar beliefs and assumptions about the topic in question. Consequently, only responses which feed into the existing beliefs of nurses were contributed in the discussions to result in uncritical discussions.

6.5.2.2 Limited participatory access

Nurses’ texts resembled the genres of nursing discourse. As such, they were only able to activate learning amongst students with pre-existing assumptions, beliefs and attitudes which were of course, nursing in nature. On the receiving end, students as respondents would only draw upon what they already knew (Rosenblatt, 1994). Without a proper match of the nursing text with the knowledge of AHPs which was non-nursing

in perspective, the ease of reading and acquiescing to the authority of the text was likely to reside exclusively with nurses. Texts in the form of a nursing discourse would automatically discourage participation from the AHPs, such that many discussion threads which were well established by nurses were not co-participated in discussions by the AHPs (Table 4.6 page 156).

However, nursing texts were also more in written form such that they worked by tapping into the discourse that was familiar to the participants. Nursing texts relied heavily on the ‘member resources’ which were available to the participants to make sense of them in order for them to participate. Both non-nursing and nursing students who did not come from the same sub-speciality as the contributor, did not have the specific required nursing knowledge. The fact that knowledge was often presented in a way that it could only be matched with those occurring outside the context of this conference, confusions were often rendered in discussions whereby the familiarity of nursing texts was laid within a selected group of nurses, who were the only ones with the required ‘member resources’.

Other than the fact that nursing texts were subscribed to nursing discourse which had a unique nursing genre which might be based on a sub speciality in nursing, there was also absence of any sustained prose assertions and explications of the unfamiliar nursing vocabularies, technical codes and scientific language in nurses’ texts. This further created an increasing cycle of disadvantage for the already disadvantaged students – those who had little prior knowledge of a specialised nursing discipline and nurse discourse – to further limit their access to learning. When nursing texts continuously demanded actions from respondents to fill in large gaps using their background knowledge of not only nursing but also general science, technology, and specialised nursing, only a few nurses who had prior knowledge of a specialised nursing discipline and nurse discourse were competent enough to create the coherence or

cohesion of the discussion. Many others who did not have the matching ‘member resources’ had remained inactive in discussions.

6.5.2.3 Restricted context of learning

When active participation was engaged by a selective group of nurses who had a strong desire to conform, discussions perpetually reflected the genres of nursing discourse and the directions of discussions were unanimously nursing-oriented. When this happened, the contents of messages in response to nurses’ messages were persistently confined to those about meeting the group consensus of nurses, and resulting in more discussions to become non-critical. The uncritical approach to discussions which comprised stereotype view of a singular professional group which was established as a result of nurses’ desire to conform was further reinforced. The effect was so great that the problem was felt by an AHP, who had then, openly recommended for a change in students’ approach to discussions.

“...I feel at the moment the majority of the group are too nice and need to explore challenging and critical approaches to issues raised ...”

Student 3 (AHP) – Week 6/ NCF/ ‘Ground Rules’

However, nurses generally did not see the signalling of membership in their messages as a problem. On the contrary, they appeared to endorse it.

“Good to see that we think alike...”

Student 12 (Nurse) – Week 3/CF/ ‘A future of elearning in the NHS?’

Whilst many nursing students sought membership with nurses, others who had already acquired feared losing it. On some occasions when nurses were on the verge of losing the membership as a result of a differing or diverse view being offered to contest the knowledge originally given by a nurse, the respondent had then quickly repaired in order to fulfil the original agenda of the contributor.

“Thanks for the two-sided coin approach Student 11. I suppose I am playing devil's advocate. I too uphold the blended learning concept.”

Student 6 (Nurse) – Week 8/CF/‘Blended learning’

In the above example, it was a response specifically provided to explain why the respondent had chosen to differ. However, upon close examination of the text, it became apparent that the explanation was provided to serve as a double-edged sword to retrieve the student’s potential loss of membership status. The phrase “I am playing devil's advocate” was used to provide a good reason for the existence of differing opinions. Indeed in any kind of debate particularly in a learning situation, the phrase was used to make explicit one’s view about an issue in question. However in this instance, it was used more as a reinforcement of the respondent’s claim to her membership status in a social context. Apparently student 6 was trying to create the impression that she had all the while, remained on the same side of the fence as the original contributor, Student 11, and had all along shared very similar values and beliefs as Student 11. Therefore, the message was sent by student 6 to make a claim that despite the fact that a different view was offered, she had been consistent in her view and that it was in agreement with that of the original contributor – student 11.

6.5.2.4 Limited context of learning

It appeared that the sense of belonging acquired through the seeking out of membership was precious and, therefore, would not be given up by nurses easily. This was because, by committing oneself to a discourse community, part of the identity within the discourse community was established within that community (Little et al., 2003). As demonstrated in previous discussions the meaning of a nurse as an expert in knowledge, obtained within the context of practice was successfully transferred to the conference when nursing discourse was deployed for IPL. Hence by actively participating in nursing discourse, this allowed signalling of membership to become

intense enough for individual nursing expertise to be persistently claimed and subsequently established as a 'reality' in the texts. It was very likely that nurses would ensure that discussions were in line with a nursing perspective, which could even be based on a specific sub discipline in nursing, so as to maintain the co-constructed nurses' authoritative image.

Throughout nurses' text, nurses who had the relevant knowledge were represented by the pronoun "we" in the text served as an indication for a particular few nurses to respond. Otherwise, respondents who shared similar knowledge or had similar expertise as the contributor were selected by nurses through other lexical choices in their texts to join in discussions. The following two examples are selected to demonstrate the ways nurses enlisted their respondents at lexical level.

"...As we know that technologies, especially keeping up with them is not cheap, and there were questions even raised..."

Student 11 (Nurse) – Week 3/CF/‘A future of elearning in the NHS?’

"Just as many of us have argued lack of face to face interaction hinders communication, maybe this could be seen as a positive for more contentious groups..."

Student 9 (Nurse) – Week 7/CF/‘Communities of practice?’

In the first extract, the text invited only those who were aware of the costs of technologies to participate, and in the second, the texts had specifically signalled those who previously agreed that the barrier to communications in e-learning was the lack of a face-to-face dimension, to participate in the discussion. As discussed in sections 2, those who could not learn with nurses were those who perceived themselves as not having the matching expert knowledge. However, it appeared that students, who were not yet able to 'talk' in nursing language, who were already finding great difficulty in following the discussion were not only automatically excluded from discussion, but they were also not invited to participate in the discussion.

The inevitable selective nature of respondents that had given rise to skewed student participation meant that many AHPs and some nurses were denied access to learning. When this happened, other aspects of a topic area, which were equally important for learning could easily be ignored and subsequently, marginalised in the conference. In cases when messages from nurses had made up the entire discussion threads, students' allegiance and orientation to the messages was to a nursing discipline, and sometimes, even to a specific nursing discipline, that learning was restricted and went no further than a limited and confined boundary of nursing.

6.5.2.5 Limited amount of collaborative learning

This study showed that nursing discourse as a hegemonic discourse to serve as an alternative to medical discourse was not simply a reflection of wider social values. In a text-based IPL environment, it even had the capability to infuse the social practice with particular nursing values to shape and limit others' learning, simply by controlling others access to learning. Therefore, students who were not yet able to signal membership through the understanding of nursing discourse and using the discourse could easily be deprived of access to learning.

Nevertheless, despite the many occasions on which nurses had adapted a hegemonic discourse as an alternative discourse to medicine, there were a few incidents in the CF and many occasions in the NCF whereby nurses had acquainted themselves to another alternative form of discourse – informal spoken English. In this form of discourse, there were frequent uses of questions with modal sentences to demonstrate deferential modalization. For example phrases like “I wondered”, “I guess”, “I think” were used. Together, they had the effect in replacing an ideological position of an authoritative expert nurse who was always the legitimate knower and assessor of learning with a nursing student participant who was also seeking answers to the topic in

question. And also, the use of informal spoken English was not in any way like nursing discourse, it was never used to help students to align themselves with any particular social or professional group. On the contrary, it involved the use of modalized forms of language which invited dialogue, whereby every student was treated with deference. In this regard, access to learning was definite for all students alike.

However, such form of discourse was seldom used in the CF. Alignment of knowledge construction in the CF was more often than not, in the form of nursing discourse, where effort to offer factual knowledge were intense. Unfortunately this online behaviour was further influenced by nurses' notion of caring and had, echoed a specific type of learning response; didactic learning. Further, when messages took the form of written nursing discourse, many texts were non-dialogical. Responses were highly dependent on the interpretation peers made from reading the messages, and tended to include only those who shared similar nursing perspectives that naturally, not many AHPs would or could participate in the discussions.

As a result, learning was generally passive in the conference and collaborative learning was limited to the same few nurses. Alternative perspectives were not possible to be brought into discussions to evaluate or validate any of the presented nursing knowledge. Online learning for students had only achieved an integrating role in a traditional form of didactic learning. Instead of having some kind of collaborative learning, students had constantly been exposed to passive learning which was restrictive, because of the high incidence of inaccessible learning resulting from the high prevalence of nursing discourse in the conference. The general students' learning experience were nothing more positive than those summed up in the following message volunteered by a nurse, expressed in her own words of frustration:

"...As the week progressed I became increasingly disappointed. Firstly because relatively few people contributed and secondly because topic offered so much scope yet the debate did not materialise..."

Student 9 (Nurse) – Week 6/ NCF/‘Ground Rules’

6.6 Critical remarks

Students who had a nursing background had prevalently engaged themselves in nursing discourse whereby the subject position of a few nurses as the knowledge experts with the other nurses and the AHPs being the passive learners were constructed. In the process of this construction, nurses had also constructed themselves as the legitimate controllers in deciding who should participate in discussions. The lexico-grammatical and rhetorical choice had caused others to be complicit with the construction of knowledge, which did not deviate from the original focus set by a few nurses. They had enlisted others to activate their knowledge within the boundaries of nursing discourse. These in turn had inevitably produced some negative learning experience, which were capable of denying some nursing and many non-nursing students the rights to learn effectively. As such, new knowledge contents had hardly emerged in the conference, particularly those from a non-nursing perspective.

However, it was appreciated that the power might not have been intentionally held by nurses to dominate others. As explained in chapter 3, nursing discourse might have even become a second nature to nurses that the discursive practices which produced a dominating effect to affect learning was not a conscious act of nurses. Nurses were more likely to be unaware of the use of nursing language, so much so that they had even taken the language for granted. Besides, the effects of nursing dominance were more likely to have been introduced in the conference due to nurses' eagerness to practise caring. The latter was compounded by the influence and constraints of the social structure of higher education that a traditional view of formal education was held by all participants, to have resulted in maintaining a didactic approach to learning in the conference.

Nevertheless, the interdiscursivity analysis demonstrated that nurses as the experts with the legitimate knowledge and authority to judge patients' outcome and

clinical situations were constructed and reconstructed in the conference through the use of nursing discourse. It was this 'reality' of nursing position in practice that had emerged in the conference which had affected students' learning experiences negatively. In many instances, collaborative IPL had reduced to a form of learning in which student participants were assimilating information from the nurse contributors, rather than learning with the individuals. The views of those who did not possess the appropriate 'member resources' were even marginalised.

Having pointed out how information exchange took place within the conference, it was important to recognise that learning did take place in the conference, albeit it was via assimilation of cognitive learning of factual information of a specific nursing perspective. In fact, there was evidence to suggest that student learning experience were in some instances, positive, so much so that the conferencing tool was also appreciated as an important information exchange tool for the students in the current study, just as it had done in previous studies (Andrusyszyn et al., 1999; Curran et al., 2003; Moen et al., 2000). However, information exchange as a form of learning encouraged over reliance and uncritical acceptance and compliance, that learning was restricted and any knowledge acquired would therefore be limited in context.

While I agree with this view, I would have failed as an educator if I were to disregard the possibility that there was some form of radical and critical learning when students receive information without engaging themselves in any critical online discussions. Having agreeing to that, I must point out that, in the absence of online participation, radical and critical thinking if it had indeed occurred, would most likely to have been achieved outside the conference – post assimilation of factual information. The fact was, in this conference, nursing discourse had prevalently appeared in the CF and informal spoken English form of discourse which facilitated radical learning had mainly confined itself in the NCF or at best, had emerged sparsely towards the end of a

few discussion threads in the CF. Students' exposure to collaborative learning for radical and critical thinking via a constructivist approach had occurred mainly in the NCF and minimally in the CF where formal learning was expected. For this reason, collaborative learning was mostly limited to the context of social networking in the NCF. This finding was consistent with those in previous work where HCPs generally agreed what they benefited most in online learning was the great amount of peer support from social networking (Cragg, 1994; Curran et al., 2003; Saunders & Heyl, 1988). Otherwise, in the conference, particularly in the CF, students had frequently assumed the role as passive recipients of knowledge and had hence, adopted an uncritical acceptance of the orthodox, just as those seen in previous studies (Cragg, 1994; Hughes & Daykin, 2002; Saunders & Heyl, 1988).

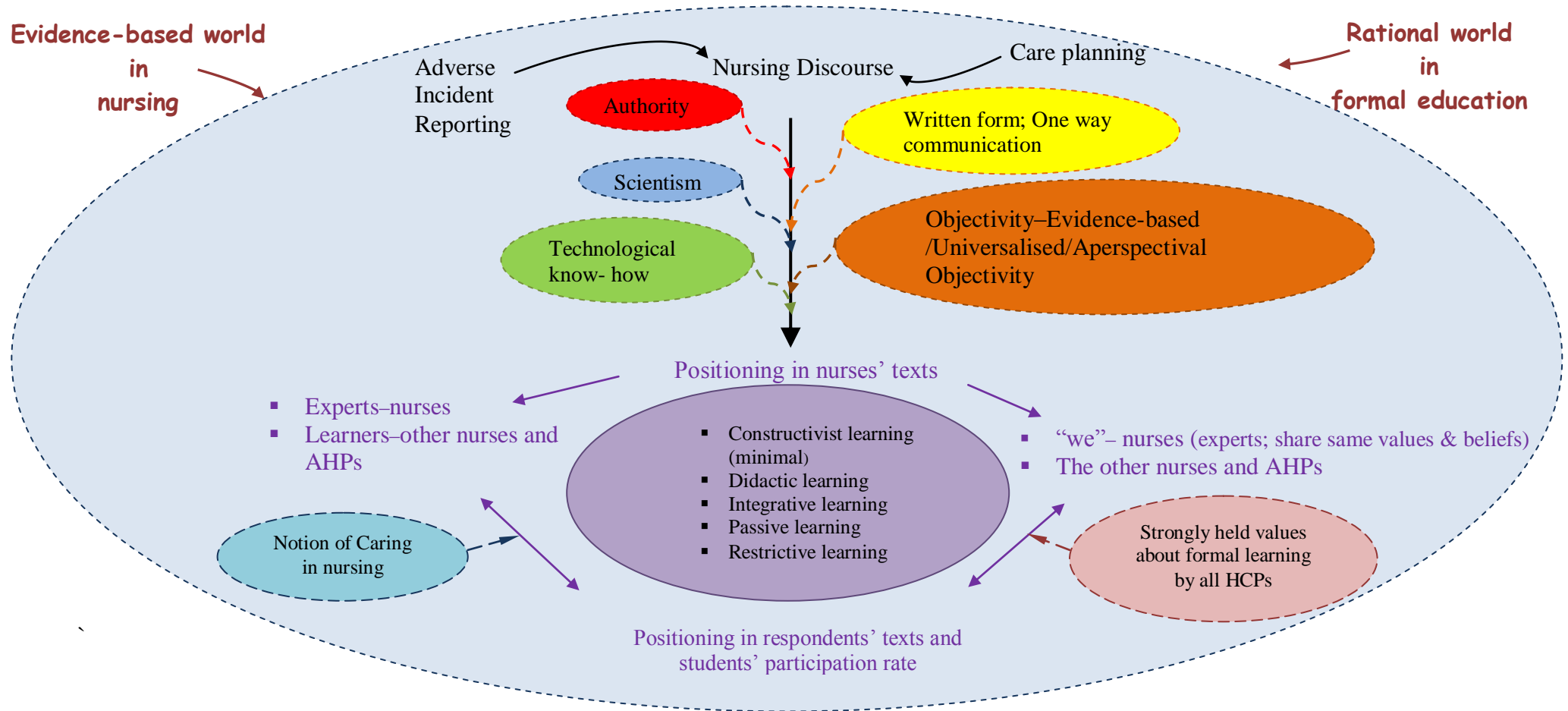
Overall, the online IPL learning was more a restrictive rather than a liberating experience for all the HCPs and the whole IPOL experience for students is summarised in Figure VIII on page 279. At a superficial glance it might have been more so for the AHPs. However it could be argued that the learning experiences of nurses were more negatively affected. Whilst nurses' knowledge was continuously being reviewed and validated by others outside the context of this conference more than it did within the community of learning, any alternative perspectives which were equally valid knowledge crucial for IPL held by the AHPs had remained to be marginalised and alienated from nurses. When the views of others had continued to be marginalised, knowledge of a non-nursing perspective was perpetually inaccessible to nurses, and yet without which, nurses were not able to construct any new knowledge based on a joint perspective, which was truly interprofessional.

Having raised this concern,, it was important to know that the argument was not about which professional group had benefited the least from ACMC. The question of whether by resource-giving or by resource-receiving would reap more benefits in

learning was secondary. The critical point was, when the extent and nature of learning was determined by the accessibility in learning for each student, yet the latter was negatively affected by the presence of nursing discourse. This of which many students, particularly the AHPs who did not have the prior specialised nursing knowledge to predispose it to successful sharing of that specialised discourse. As such, the boundaries of learning were restrictive within the confine of nursing discourse. Students regardless of their professional identities were equally affected, that for any topics in question, none of the students had been able to explore the relationships between a specific nursing discipline and other nursing and non-nursing perspectives.

To develop nurses and AHPs into a dynamic group of healthcare deliverers, so that they could manage a fast changing healthcare industry was precisely the reason for introducing a social constructivist approach to online collaborative learning for healthcare education in the first place. As a result of nursing discourse, there was a high volume of discussions in which knowledge was not to be negotiated. The radicalising role of online learning in higher education which was believed, to be achieved using social constructivist approach to learning appeared to have not realised to its fullest potential in this study. Apparently, this online learning did not happen the way the service providers had expected it, when this module was first developed. In summary, this online module which intended to exploit ACMC to benefit from the technology might still be a little far from fulfilling the healthcare education agenda for IPL in healthcare education.

Figure VIII Relationship between nursing discourse and student learning experiences



6.7 Conclusion

In this conference, nurses often appeared to have deployed nursing discourse to discuss the relationships between the impressions nurses gathered from nursing practice and the topics in question. This invoked an existing ideological view of nurses as authoritative experts. The power exerted by nurses through the use of nursing discourse had worked at micro level in the construction of ‘truth’ regarding the boundaries of the topic in question. ‘Factual’ information usually took precedence over messages which would encourage questioning and negotiating of knowledge, and learning was generally uncritical and inaccessible. Consequently passive and restrictive learning from nurses who prevalently contributed a large amount of knowledge based on an objectivist view were the online experience of many nurses and AHPs.

It was evidenced in this study that the use of ACMC for IPL had not been experienced by students in the way it was designed in achieving its possible maximum potential for collaborative learning. In the conference, students were seldom invited to think, discuss and extend themselves in challenging ways. On the contrary, they were often compelled to engage in lower order cognitive tasks. As such, students rarely progressed beyond assimilating facts and rote learning from their more able counterparts. IPL whereby knowledge and practical wisdom were expected to be exchanged between different professional disciplines was rare.

Based on this study, the texts were connected to cultures, power and ideology configurations operating in the broader society, which was nursing in healthcare practices. Thus, in the next chapter, specific strategies for effective collaborative IPL will be recommended to address issues in a broader socio-cultural context of nursing. The strategies designed to address the problem are in light of the findings as discussed in this chapter.

Chapter 7: Conclusion

7.1 Introduction to the chapter

The use of critical discourse analysis (CDA) has revealed that discursive practices of nurses operated with power relationships in asynchronous computer mediated conferencing (ACMC) whereby nursing dominance was constructed and maintained. Nevertheless, it was the subliminal use of nursing discourses which constructed and maintained the ideology of nurses as experts in the online discussions, that equality of interprofessional learning (IPL) and radical and critical learning were not experienced. Whilst nurses' texts were connected to cultures, power and ideology configurations operating in the broader society (Fairclough, 1995), student online experience were linked to wider external forces. It was these external forces that had operated on and influenced the localised conference site as well as the healthcare professionals (HCPs) who inhabited the site for formal learning. Therefore, there are important implications of this study for future interprofessional online learning (IPOL), all of which are dealt with all other implications of this study in this final chapter of the thesis.

This final chapter is divided into five sections. The first deals with the implications of this study, the second makes recommendations for nurses, e-moderators and policy makers. The third explains the importance of disseminating the results, and provides reasons for my dissemination strategies. The fourth provides the reflections on how my reflexivity was addressed, with detailed discussions on the strategies I had used in the entire research process. The fifth discusses the strengths and limitations of the study. The sixth discusses an alternative approach to this study and the last section provides recommendations for future research. The final section is done in the hope that a collective understanding of the different aspects of this research topic can be broadened.

7.2 Implications of findings

7.2.1 The effects of using a dominating nursing discourse

It was evidenced that the problem central to IPOL was nurses' use of nursing discourse, which might have been subliminally but prevalently used in constructing nurses' dominance in the learning environment. It was also evidenced that this problem was compounded by the notion of caring underpinning nursing practice and the traditional view of formal learning strongly held by all HCPs in the conference. Emerging from nurses' texts was not only the bureaucracy in a hierarchical health service, but also, nurses' objectifying language, both of which intensely contributed to the online discussions. The language nurses use had perpetually constructed nurses as the authoritative experts, with the assumption that their views would be received unquestioningly in a didactic fashion.

Potentially, the use of nursing discourse had a more detrimental than beneficial effect on IPOL. The resultant negative effects of restricting and limiting learning from the implicit power relations in nursing discourse had not only affected the allied healthcare professionals (AHPs), but also, the nurses. What was clearly demonstrated in this study was, nursing discourse which had shaped the particular identities of a few nurses, had eventually shaped that of other nurses and also, the AHPs. These constructed identities had then formed complementing paired roles; teacher–students, assessors–assesseees and/or experts–resource receivers, all of which had in turn shaped the online discursive practices and ultimately the student online learning experience.

The social production of meaning in this conference had taken place in such a way that it occurred in the realm of nursing discourse within which individuals engaged in online discussions. It had shaped one's thoughts and actions to result in nurses perceived as being more superior than the AHPs in terms of knowledge in this conference. This perception is similar to how nurses may be viewed in terms of patient

care. Student expectations of the nursing and non-nursing roles in the healthcare profession that prevailed in their learning practices within the online learning environment continued to perpetuate the implicit power relations among nurses and, between nurses and the AHPs.

7.2.2 Reflexive awareness of nurses' language use

Based on this study, it may be time to call upon nurses for some reflexive awareness of nurses' language use. It may even be important that nurses are informed about the implicit power and the effects of nursing discourse. Once reflexive awareness is created, nurses might appreciate that whilst nursing language has every potential to construct nurses as the experts, it also, has the capability to give rise to an undesirable identity of '*the other*'. As such, nurses can be made aware of how their interpersonal relationships with others can be adversely affected.

Without any reflexive awareness of nurses' language use, nursing knowledge will continue to be disseminated in a didactic fashion in any text-based online learning situations. As a result, critical and radical online learning, both of which are important ingredients for healthcare professional development, particularly in higher education will continue to be absent in IPOL. In fact, if the use of dominating nursing discourse is allowed to persist in any IPL situations, in time to come, nursing knowledge is bound to be viewed and recognised as something which is difficult to be articulated in meeting the goals of IPL. If this continues, nursing discourse is likely to lose its relevance and potency in IPL. In today's healthcare climate, interprofessional education (IPE) is increasingly becoming a desirable aim in helping to achieve a quality multidisciplinary-based patient care approach (Salvatori et al., 2007). If nursing discourse cannot have a place in collaborative learning, it will soon lose its place in healthcare practices. Amidst the climate of the ongoing arguments over the desirability of standardised nursing

language for nursing discourse in the nursing profession (Beyea, 1999; Brito, 2007; Crawford et al., 1999; Orem, 1995; Rantz, 2001), the more it is important for every nurse to attend to the unique mode of expressions of nursing knowledge.

7.2.3. Reflexive awareness of language use in nursing as a discipline

As discussed earlier, to maintain the viability of nursing language and discourse, nurses may have to start addressing nurses' use of their taken-for granted language for some emancipatory change. However, such endeavours will not be the business of individual nurses but that of the nursing discipline. This is because nurses as individuals, however strong and able, may not be able to ensure success of an emancipatory change that is affecting the nursing discipline as a whole. Therefore, team efforts from the discipline are required. For this reason, nurse researchers, nurse educators and nurse policy makers, all of whom are at strategic management or academic level will have to engage in the process of which they may be empowered with the required knowledge of the effects of dominating nursing discourse. By doing so, it may increase the successful rate of nurses at operational level to be able to differentiate contextual language use.

The following discussions on the strategies in promoting emancipatory change are, therefore aimed at the nursing discipline as a whole. Particular attention is given to nurses in any professional capacity and/or nurse educational roles, because nurses at all levels are in one way or another contributing to the development and maintenance of nursing discourse. Therefore, the target audience for which the recommendations are made includes nurses as individual learners, the nurse e-moderators as service providers of interprofessional healthcare education in the higher education institutions, and last but not least, the policy makers of interprofessional healthcare education.

7.2.4 Precautions to be taken when creating reflexive awareness

The quest for emancipatory change through engaging nurses in the process of challenging nursing discourse demands great care. The fact that nursing discourse has become a ‘natural’ language for many nurses for almost two decades, any strategies put in place would have to be such that, the emancipatory change does not produce a counter effect, particularly on those who wish to learn from nurses. In other words, the recommendations proposed should not end up ‘*locking them* (the passive learners – nurses and AHPs) *within a different restrictive discourse*’ (Willig, 1999: 9).

Indeed the eminent attributes of nursing discourse cannot be denied. As discussed in chapter 3 of methodology and methods, nursing discourse was needed to serve some social purposes in the different aspects of healthcare. Certainly, the unity and higher status in nursing with more autonomous and independent nursing practice in today’s health care system are good enough reasons for nursing discourse not to be interrogated, but instead to be endorsed by nurses.

In fact, the important achievements in nursing through the use of nursing discourse which were discussed in chapter 3 had emerged as an advantage for some students in this study. First, the fact that online discussion was generally in the form of nursing discourse, it had allowed nurses to signal membership in nursing that the isolating feelings in online learning were removed. Second, since it was a discourse that was commonly shared and used by nurses, it was an essential resource for some nurses to partake in the discussions, and it had made online learning accessible, albeit it was to some nurses only. Third, the fruits of using nursing discourse reaped by nurses were equally reaped by the AHPs even though they did not share the specialised nursing discourse. There was no doubt that the didactic learning and restrictive learning was brought about by the use of nursing discourse which emphasized teacher-control and learners-compliant learning. Such a traditional form of education was indeed

demonstrated in this study as being useful and beneficial for some students. This was especially so at the early stages of student online learning experience. Students in the conference generally felt that the didactic approach to learning had stretched them in their thinking about the topics in question. Based on these findings, not only the few dominant nurses but the dominated nurses and AHPs had also benefited from the existing online discursive practices in which nursing discourse was prevalently used. In essence, nursing discourse facilitated membership signalling and didactic learning, both of which might be important for successful IPOL.

Apparently, no further discussions on the usefulness of nursing discourse are needed for justifying its stay online. The discussions on the benefits of nursing discourse on online learning is to stress my earlier argument about being careful when challenging the use of nursing discourse. Since there are so many benefits using nursing discourse in healthcare as well as in IPOL, care needs to be taken to avoid producing a counter effect when challenging nurses' use of the discourse. Indeed, these salient aspects of nursing discourse in relation to its social purpose in this online learning, is perhaps a useful reminder that nursing discourse should never be censored. However, based on some of the student experience in this study, nursing discourse should not be blindly endorsed either, especially if critical and radical thinking are to be materialised in any IPL situations. The critical point in the recommendations of this study is therefore about equipping nurses with the required knowledge and skills so that they are able to appreciate and recognise the need for appropriate adjustments in nurses' language use, rather than censoring it altogether.

With this in mind, the recommendations are focused on providing some possible avenues for nurses to increase their reflexive awareness of language use and helping nurses to make the necessary adjustments in its use so that they are able to strike a healthy balance between the need for a collegial relationship with their counterparts in

constructivist learning and the need to helping others to learn or to access learning. The ultimate aim of the recommendations is to make any adjustment of nurses' language use, such that it facilitates radical and critical discussions and at the same time, allows a didactic approach to learning when necessary. Certainly, the recommendations for explicit changes in nursing discourse are targeted for pedagogical reasons in the hope that nursing discourse may facilitate effective IPOL, whereby the learning needs of all HCPs can be met.

7.3 Study recommendations

7.3.1 Study Recommendations – Professional development for nurses

7.3.1.1 Raise nurses' awareness of the effects of nurses' discursive order

Since nurses' higher status in healthcare is seen to have been attributed to the development of nursing discourse, its use has inevitably become a deeply rooted culture in nursing. As indicated in this study, the wider nursing discourse such as that used in care-planning and incident reporting were reflected in the conference. It appears that the culture in the use of nursing discourse that is deeply rooted in the development of the nursing profession is also found in nurses' discursive practices in learning with others. In this regard, the thought of total re-engineering the standardised nursing language or censoring nursing discourse are both naive and unrealistic. As discussed in chapter 3, nursing discourse has indeed in some instances, brought and continued to bring nurses' a higher status in healthcare. Apparently in this study, it had served a special social purpose in IPOL, such that both nurses as well as the AHPs have benefited from the use of nursing discourse. With that in mind, changing a deeply seated nursing culture is not proposed. Instead, the recommendations are centred on those that would help raise the reflexive awareness of all nurses.

The strategies recommended in this study do not necessarily involve a radical change to the current nursing discursive practices. Rather, they are strategies with a focus to secure equal opportunity for all HCPs in online IPL to develop the ability to use critical analytical judgment as well as the capability to construct useful knowledge that would benefit any HCPs in multidisciplinary team learning. The strategies are designed to provide nurses with some space for consciousness-raising and provocative thinking about the negative impact of nursing discourse on IPL. Nurses, particularly those who are involved in IPOL can then work together to understand the nature of nursing discourse.

Once a good understanding of the way power is produced in nursing language and producing that language is established, the ill effects of nursing language on nurses' learning with others can then be appreciated by nurses, who may then be able to recognise the source of their own frustrations in a restrictive and limiting IPOL. Once nurses are equipped with the required knowledge, nurses may still need continuous help to gain some effective communication skills and interpersonal skills so that they can restructure their discursive practices as necessary in order to facilitate cross disciplinary communications.

It is important that a collaborative and democratic process is employed in creating reflexive awareness. Once such spaces are created for nurses to explore their own discursive practices reflexively, nurses are likely to become more thoughtful about their own use of language. They are also likely to be more able to make informed decisions about their lexical choices and their online discursive practices. More importantly, they are more likely to independently deal with any discursive issues effectively as they arise in any IPOL situations. In other words, the help rendered to nurses is likely to enable nurses to independently alter their discursive practices

according to the needs of a specific context to facilitate one's own learning as well as that of others'.

7.3.1.2 Specific mechanisms to raise nurses' awareness

Nurses' awareness of the nature and possible ill effects of nursing discourse on IPL may have to be raised by introducing a core module about nursing discursive practices and interprofessional communications at the early stage of an individual's educational journey in nursing; at pre-qualifying level. Whilst, awareness of nursing language use is needed amongst all student nurses at pre-qualifying level, those who are reaching the end of their student nursing journey who are more socialised into using nursing language can be given the priority, if resource is a problem. This proposed core module may focus on addressing the nature of nursing discourse, with an aim to encourage nursing students to explore the standardised nursing language in care planning and nursing knowledge development, and its effects on cross disciplinary communication. Preferably, it has a focus on effective communication skills and interpersonal skills targeted at achieving effective cross disciplinary communication. Alternatively, a training curriculum which aims to promote nurses' reflection of their language may also be introduced across all modules in all pre-qualifying nursing programmes. The element of effective cross disciplinary communication may also be embedded in the curriculum that has been designed for all pre-qualifying nursing students to achieve specialised nursing knowledge. In this way, whilst developing the specialised nursing knowledge, all students can then be given the opportunity to acquire the skills for effective cross-disciplinary communication as naturally as they will for standardised nursing language in nursing discourse.

As highlighted earlier, the reason for advocating concerted effort in helping nursing students to engage in any formal IPL to be concentrated more on pre-qualifying

nurses who are in their final year of nurse education is because amongst all nursing students, those who are in their final year of studying a nursing programme are more likely to have been socialised into using nursing discourse. Similarly, any efforts invested in nurses' professional development will have to be concentrated on post-qualifying nursing students and nurses who were already in nursing practice. This is for the obvious reason that any post-qualifying nursing students and nurses in practice are already socialised into using nursing language. In this light, they are likely the competent users of nursing discourse who may have taken it for granted. Another important reason for targeting qualified nurses is because in today's healthcare climate in which the push for IPL is intense, qualified nurses are more likely to engage in IPL. For these groups of nurses who are competent users of nursing discourse, workshops and seminars can be organised regularly to raise their awareness about the impact of nursing discourse on interprofessional learning and working (IPL/W). Besides aiming to raise nurses' awareness, these workshops and seminars may also aim to provide opportunities for nurses to be equipped with the communicative skills that will help to secure effective IPOL.

7.3.1.3 Potential limitations of creating reflexive awareness of nurses' language use

The difficulty in the above proposed strategies was that some nurses may value nursing discourse as one way to protect nurses' unique professional identity in healthcare. After all, it was nursing discourse that had removed nurses from their 'hand maiden role' to their medical counterparts in healthcare, such that nurses too, had successfully gained a legitimate foothold in clinical practice. It will be relatively natural for nurses to accept the current order of discourse without seeing the need to interrogate it. In other words, nurses are not likely to stop perpetuating the use of nursing discourse,

albeit the discontinuing use may only be on a temporary basis and perhaps only on a selected few occasions, when nurse engaged in IPOL.

As explained before, nursing discourse is a deeply rooted nursing culture that has been built and carefully crafted for a specific purpose for the past two decades. The meritocratic ideal for nurses was perhaps, for non-nursing counterparts who wish to learn with nurses to remain learning from them. If this was the case, successful learning would continue to lend itself as only to be achieved by those HCPs whose primary discourse was similar to nursing discourse, or if not, HCPs who were willing to seek alignment with nurses' view and allegiance to nursing knowledge. In this regard, nurses would most likely continue to fail to recognise the importance of critiquing nursing discourse even if they had been made aware that nursing language potentially risked nurses to engage in rigid ways of representing knowledge and limited ways of thinking. Despite recommendations for professional development for nurses, the intellectual development and growth in an IPL situation may continue to be stifled in the presence of nursing discourse. Therefore strategies to resolve the problems would have to be simultaneously targeted at the situations that had paradoxically led to them.

As discussed in chapter 6, the hegemonic struggle for alternative discourse to medical discourse alone might not have resulted in nurses acting in the manner they did in their discursive practices in the conference. The lack of insight to constructivist learning and the endorsement with traditional formal learning by all students were obvious in this study. In any preparatory courses for online collaborative interprofessional programmes, other than to expose HCPs to opportunities in which they were aimed at improving students' technological skills to bring students up to a required technological level, it is more important to prepare potential online students for constructivist approach to learning, in order for them to appreciate its value in adult learning. In these preparatory sessions, all HCPs as students will have to be reassured

that they can use informal language to conduct their online discussions, so long it does not violate any procedures or policies of learning in higher education.

Whilst it is important to address language use in a constructivist environment with all HCPs, it is perhaps more critical that strategies for change are simultaneously focused on the use in nursing language. However, for these strategies to be effective, they must be targeted beyond the level at which nursing discourse emerged, at the point where nurses were shaped to use nursing discourse. With this in mind, the groups of nursing professionals in education and policy making who might have the most powerful influence on nursing language in IPL situations are targeted for the emancipatory change.

7.3.2 Study recommendations – e-moderators' practice

7.3.2.1 Implications for e-moderators in practice

Whilst efforts are spent on educating nurses, and making nurses aware of the potential detrimental effect of nursing discourse on IPOL, online healthcare educators as e-moderators may need to engage themselves in a more proactive and innovative approach to online learning and teaching, especially when it involves students of mixed healthcare disciplines. Based on the literature review there was student dissatisfaction of e-moderator's lack in guidance and control (Bacigalupo et al., 2001; Becker et al., 2000; Juntunen & Heikkinen, 2004). This was despite the fact that the HCPs were comfortable with the technology for conferencing and had displayed a good amount of critical thinking skill. This strongly suggested that students' dissatisfaction with the e-moderators' absence, was not that students needed help from e-moderator in learning the online topics in question, rather they might be dissatisfied with the failing of the e-moderator to act according to students' expectations and to intervene timely and accurately with a focus to address the crux of the problem, which was discursive in

nature. However, there was not enough evidence in this study to suggest that the presence of an e-moderator was particularly missed by HCPs to address any problematic issues in online discussions.

As evidenced in this study, some problematic learning issues in the conference and the crux of which was discursive in nature. In this respect, for any online IPL situations, it was important that the e-moderators do not enter the conference with a narrow view of their roles as only to be responsible for solving technological problems or for cheering students on for active participation, in ways that were limited to non-discursive elements as advocated by Salmon (2003). For healthcare educators as e-moderators for IPOL, they would have to be well equipped with the required knowledge and skills to recognise any hierarchical issues that had emerged from nursing discourse and be able to readily employ creative ways to mediate discussions accordingly. During the ongoing discussion, e-moderators would have to be sensitive in recognising any significant linguistic features which could potentially result in problematic learning. Thus, e-moderators would have to have the ability to address any problematic issues as early as it first emerged. Dealing with any discursive problems might even involve the rephrasing of a particular message right away. If rephrasing the message was needed, it was important for the e-moderator to do so in ways that the 'corrections' would ease its way into the discussion thread, unnoticed. Otherwise, explaining to the students involved was critical, and this might have to be done via a private electronic mail or a face-to-face meeting depending on the nature and frequency of the problem. In some instances, the e-moderator might even have to allocate time to demonstrate to the affected student alternative ways to present his/her argument in the conference that would help to facilitate one's own learning and that of others. By having the knowledge to recognise any discursive issues early and also having the skills to deal with them in a timely way, students' IPOL would be able to be improved.

Having recommended all these strategies, as demonstrated from the current study, what was really needed in most cases was simply for e-moderators to be able to provide clarifications and explanations of what had been posted in a timely fashion. Students who did not have the required 'member resources' would not have needed to struggle on their own in trying to fill the gaps of the messages. Although there was no evidence from students to suggest that the absence of the e-moderator was a student concern, it was obvious that the e-moderator's presence was needed to bridge the gaps in the discussions and more importantly to facilitate in the building of relationships amongst the HCPs. Thus, e-moderators might need to be prepared to give their commitment and time to deal with threaded discussion timely and more importantly, appropriately so that students would feel well supported while constructing knowledge 'on their own' (Odin, 2000).

The discussions on strategies so far were on how an e-moderator can deal with discursive problems in any ongoing online discussions. It is appreciated that any strategies would only be effective if they were implemented more proactively than reactively to a problem. Hence, one should not wait for problematic discursive issues to happen. At the start of any online module, e-moderators would have to spend time orientating students, particularly nurses, about this new form of learning. Orientation programmes for nurses might have to have an emphasis on the effects of nurses' language use in a text-based learning environment whereby successful learning relied heavily on successful interpreting of the texts. This meant the relationship between nurses' discursive practices and their effects on constructivist approach to learning would have to be emphasized. In this pre-preparatory work for IPOL, e-moderators would have to consider committing a considerable amount of time and effort to equip students with effective communication skills and knowledge to the required level. The communications skills would be similar to those that were mentioned in section 2.1.2,

which are targeted at achieving effective cross disciplinary communications so that effective IPOL can occur. The amount of time and effort in preparatory work may be the same or perhaps more than that, which have been allocated for addressing students' technological incompetence, simply because discursive issues in relation to constructivist learning is complex.

7.3.2.2 Current practice of e-moderators and its limitations

By and large, any e-moderators especially those who were nurses, should also be made aware of the order of discourse in healthcare and the way it may affect individual nurses' discursive practices. In this study certainly, there was some evidence to suggest that the e-moderator had pre-empted the problems associated with socialising and online participation. In this instance, strategies were employed to address the potential difficulty in online socialising and they were similar to those utilised in previous studies (McGugan, 2002; Mason, 1991) and hence, were based on Salmon's (2003) model of e-learning. For example, at the start of the module, the e-moderator had allowed students to set their own ground rules for learning. Another obvious attempt made by the e-moderator that was in line with Salmon's (2003) model of e-learning was the redesigning of some of the educational activities to encourage student participation. For this, the e-moderator had included a discussion thread called 'the coffee bar' in the non-compulsory forum. This was a space for students to build rapport. In addition, the e-moderator had also ensured that the online discussions were not graded. Such practice, which is not common in many educational activities, whereby students' work are tended to be subjected to either formative or summative assessments, are employed to encourage students' online participation.

In many ways, the e-learning environment was made to reflect less of a traditional formal learning environment to encourage a student-centred approach to

learning. It was apparent in this study that, despite all the efforts to create a constructivist atmosphere, learning was still based on a traditional approach whereby discursive practices were still formal, and learning was didactic and restrictive. Thus, simply redesigning the online activities and assessments was not adequate. Successful IPL needed an e-moderator to be able to understand the problem from a discursive perspective.

Practices of other e-moderators might not have been identical to those seen in this study. However, they were likely to also have been based on findings from empirical studies. Since studies to date, had only focused on student learning experience from a non-discursive perspective (Loke, 2007), efforts from e-moderators had always been devoted to redesigning online activities and technology (Harasim, 2006). Such strategies, even if they had benefited students' IPOL, they were likely to be limited in addressing the crux of a discursive-natured problem, which might also involve implicit power relations.

7.3.2.3 Specific mechanisms for e-moderators to promote interprofessional online learning (IPOL)

At the start of every discussion thread, there was always a message from the e-moderators. These inputs from the e-moderators were inevitable as they were needed to initiate students' discussions. There was not enough evidence in the current study to establish the link between e-moderator's and students' discursive behaviour. Nevertheless, it appeared that messages from e-moderators had an influence on student expectations about the type of learning environment, and it is in this sense, that e-moderator's contributions to the conference might have had an influence on students' subsequent discursive behaviour. The e-moderator's exemplified discursive practices which set up the subsequent learning environment were likely to have been based on the e-moderator's practical epistemological beliefs in formal education. In this light, any e-

moderators especially those with a nursing background should have to be made aware of the impact of their 'taken for granted' language on IPOL. Strategies to increase e-moderators' awareness of nursing discourse use should be similar to those that were designed for individual post-qualifying nurses, that were discussed in section 2.1.2.

Equipped with the knowledge of the impact of dominating nursing discourse and the required linguistic skills to deal with it, e-moderators would still have to be creative in the way discursive online tasks were initiated in a formal learning environment such that initiation of any student discursive tasks were always posted using discourse intended to promote learning. Indeed, redesigning of the online environment need to be based on healthcare educators' awareness of the discourse style in which they participated. This was important as educators taught and related to students in ways which extended their own beliefs and assumptions. Therefore, whilst reality was co-constructed in discourse, an effective e-learning environment would only be created if e-moderators were good role-models to the nursing students.

If the e-moderator's exemplified discursive practices had set the scene for constructivist learning in a formal learning environment, students could then be reassured that discourse which did not adhere to those occurring in a formal learning situation would be approved by the e-moderator. Students could then engage in informal discourse right at the start of the module. Student rapport would not have taken such a long time to build and informal language which promoted negotiation and discussion would not have only appeared towards the end of the module in the CF.

On the contrary, radical and critical thinking would not have only emerged at the time when the learning community was getting ready to disband. This meant, the benefits of collaborative online learning would not have been reaped to their fullest potential by the students. If e-moderators who had a nursing background had used informal discourse to set the scene for discussions, nurses as students would also be able

to acquire the required discursive skills and knowledge in a realistic context of learning with the e-moderator. As such, interprofessional collaborative learning with peers in an ACMC was more likely to have occurred at an early stage, without students having had the need for any rapport, which usually takes a long time to be built into any text-based learning environment.

7.3.3 Study recommendations – Healthcare education policy makers

7.3.3.1 Current practice and its limitations

Policy makers focusing on poor interprofessional relations have long been aiming the proposed interventions for improving it at educational systems (Zwarenstein & Reeves, 2006). Hence, other than creating more interprofessional educational opportunities for the post-qualifying healthcare students, the pre-qualifying healthcare students are also expected to undergo initial interprofessional training. Hence, IPL is now required to form part of the pre-qualifying healthcare curriculum in many higher education institutions in the United Kingdom (Department of Health & Quality Assurance Agency for Higher Education, 2006). In this way, many nurses are beginning to be exposed to professions from other healthcare disciplines through IPE at an early stage in their healthcare education. This means, the number of exposures to IPL for any individual nurses will be incrementally increased.

As discussed in the introductory chapter, the emphatic push for e-learning with the use of ACMC in post-qualifying healthcare education was unmistakably an aim to meet the goal of IPL set in the political agenda for healthcare. The use of ACMC as a tool for learning was to fulfil a dual purpose: It was to ensure flexibility in learning and to increase the incidents of students' exposures to IPL. However, the hope for effectiveness in IPL and collaborative interventions through the implementation of such strategic measures might have been an elusive goal. Simply putting students from

different healthcare disciplines together for exposure to IPL in a generic module which involved more process orientated collaborative working (Lloyd-Jones et al., 2007) will not cause interprofessional collaborative learning to magically occur. This explained why despite all the NHS policies developed with a commitment to incorporate IPL/W as part of modernising education, as fundamental requirements (DH, 2000), there had never been any rigorous evidence to suggest that IPL/W existed amongst the HCPs (Zwarenstein & Reeves, 2006).

Based on this study, it seemed that the learning environment was not owned by the service provider who created the space for interactions, but by those who participated in online learning, who had then determined and maintained it by the implicit power relations amongst the different groups of HCPs. As evidenced in this study, physically organising a group of HCPs for them to meet for learning did not guarantee equal student access to learning and the crux of this whole problem was from a discursive perspective. Unfortunately, nursing discourse as a root cause to the failing collaborative interprofessional learning has never been recognised as a problem. Hence, IPL had seemed unable to occur in health care education (Zwarenstein & Reeves, 2006), despite the ongoing efforts put into promoting and enhancing it.

7.3.3.2 Specific mechanisms to address current limitations

Based on the findings of this study, it is important for policy makers who are implementing any IPL policies, to first consider the discursive aspects of learning, so that they may reconceptualise the problems of IPL from a discursive perspective. Only then can policy makers publish specific guidelines on the mechanisms to address the hierarchical complexities which emanate from the unique professional discourse of the different groups of HCPs, particularly from the nurses.

However, it is important to appreciate the fact that this mechanism will need to be accompanied with some degree of educational reform for IPOL to be successful. As evidenced from this study, influencing the use of formal nursing discourse was also a traditional view of didactic education held by all HCPs that had resulted in restrictive and limited learning. Hence, educational reform should be specifically targeted at reframing the view of conventional formal education into a constructivist worldview. Unless informal learning which enhances IPL is acknowledged and promoted in healthcare educational policies, nursing discourse as formal language is likely to be continuously used in all IPOL situations to the extent that collaborative constructivist learning will be limited.

The above proposal is in view of the fact that successful reform of any educational curriculum for IPL may require mechanisms that will facilitate the reform. These mechanisms would have to be implemented from the top; at healthcare educational policy making level down to all those who may be impacted. From this discussion, it would seem to suggest that educational reform was likely to occur if the mechanisms for change were at policy level which specifically targeted at addressing the discursive aspect in power relations and the traditional view of formal education. However mechanisms based on this suggestion alone were still likely to fail, even though they were targeted at discursively manifested issues. This is because to truly address the root cause of frustrations from the implicit power and status differentials for each HCP group, mechanisms initiated at policy level needed to be implemented with the consultation of nurses and all AHPs at grass root level.

Only when problems based on a discursive and power perspective in a new world view of formal learning in higher education are addressed in consultation with those involved, will nurses and other AHPs at the receiving end have a chance to learn more about each other, and more with each other. In the presence of consultation

initiated by healthcare education policy makers, a space would have to be created for nurses and AHPs to share opinions in a mutual dialogue. When nurses and non-nursing AHPs are provided with opportunities to learn to respect each others' unique healthcare knowledge, ultimately, they can learn to appreciate each other's important role in healthcare, such that successful IPOL can happen.

In this view, policy makers should not continue to funnel all their resources and efforts into putting groups of students from different healthcare disciplines to coexist in cyberspace and hoping or assuming that IPL would automatically happen. Instead resources would have to be diverted to address any problematic issue of IPL from a discursive perspective. In the process of addressing the issue and developing any guidelines in healthcare educational curriculum, policy makers would have to ensure that they did so in a democratic and collaborative manner in which there was consultation with HCPs at grass root level; for they were those who involved in IPOL and hence would have been most likely to be affected by any educational reform.

7.4 Disseminating the results

7.4.1 Reason for disseminating the results

To raise the awareness of nurses practising at all operational levels, and those practising in the field of academia, research and politics about their discursive practices and the impact they had on IPL, the results of the study will have to be disseminated. Indeed, for a successful reform of the curriculum for IPL, evidence of any interprofessional communication impacted by power differentials among the nurses and between the AHPs and nurses, merited attention. This is important for no other reason, except to date, IPL rarely existed (Zwarenstein & Reeves, 2006). Whilst the need for effective IPOL intensifies, there was no concrete and empirical evidence produced so far to form the basis of the much needed proposed corrective action. In fact, evidence of

previous studies (Bacigalupo et al., 2001; Becker et al., 2000; Juntunen & Heikkinen, 2004; Zhu, 2006) to challenge the existing discursive practices with regards to online IPL had not been recognised. Thus, the results of this study would have to be disseminated if changes to nurses' discursive practice were essential for successful IPOL.

My emphatic push in disseminating the result of this study to influence practice might have given others the impression that I was endorsing a positivist view to research and a didactic approach to learning. I would like to point out that nurses may only be convinced of the seriousness of the ill effects of nursing discourse on IPL, if the information about the need to adjust and change nurses' discursive practices is evidence-based. In fact, any results of critical research are unlikely to have an effect if the findings are not allowed to be moved into a more public sphere (Fairclough, 2001). For this reason, it is important that the results of this study are disseminated. Otherwise, although it might have been subliminally, nurses will be deprived from acquiring the required knowledge, and may continue to marginalise others' view in IPL and deprive others' access to online collaborative learning.

7.4.2 Strategies for disseminating the results

When considering the strategies for disseminating the results of this study, the first thing that comes to mind is to publish the research study in some specialist journals which have a focus on either IPL or ACMC for higher learning. This is one fast way, particularly an important one, to reach a massive but targeted audience for emancipatory change. This strategy is based on the assumption that the pool of readership is extended to almost every interested party; healthcare academics, healthcare researchers and health education policy makers, many of whom have a great amount of influential power to initiate changes. As such, it may help with emancipatory changes to a large extent and

at a rapid rate. However, by engaging these key strategists, changes are more likely to be initiated based on a top-down approach. As mentioned in the earlier section, any changes initiated from the top, may suggest that successful IPL at grass root level can become questionable. Indeed, when Fairclough (2003) advised for any critical research to be moved to a public domain, he meant for it to be moved out of the confined network of academic practices; otherwise, the critical research would not have an effect on its target audience. By publishing the research in only specialised journals, it is likely that any nurses as online learners in IPL, who are expected to change are not given the sense of ownership of the strategies for change. If this becomes the case, there is a high chance for any plan for successful IPOL to fail.

Hence, the most important thing to consider when disseminating the findings in journals was not for the issues which arose in this conference to become a general problem of the specialist discourse of this research. In other words, care needed to be taken in any disseminating efforts so that this critical research, which has significance and value for HCPs at the operational level, does not end up constituting a barrier to professional development that is necessary for successful IPL for individual nurses. Therefore, whilst attempts were made for this research to meet the criteria of quality and relevance of the specialist journals for publication, the findings of this research should not be allowed to stay within its confine of this small network of practices. Therefore this study will also be published in healthcare professional journals of all profiles, including the Nursing Times and Nursing Standard. For the same reason, for this study to be disseminated beyond an academic network of practices, the results will be disseminated in conferences and seminars that are attended by HCPs at operational levels. So far, the initial findings have already been disseminated in two seminars, one of which (Loke, 2009a) was attended by nurses academics and the other (Loke, 2009b) which was more fruitful, as it was also attended by nurses as well as AHPs from clinical

practice. Nevertheless, due to the nature of these seminars, those in attendance were mostly the academics or otherwise, those involved in research. Thus, future workshops based on the current findings, and a focus on collaborative and constructivist learning is planned for all HCPs at grass root level. This is important because participation in IPOL at some stage in their professional career is unavoidable, being aware of the online discursive practices and having the skills and knowledge to address them is essential in IPOL.

To maximise the results of my dissemination strategies, attention will be paid to my discursive conduct. The language use in disseminating the results will be modified accordingly, so that the information can be comprehended, scrutinised and evaluated democratically by the various groups of nursing professionals and AHPs. As such, any healthcare professionals from elite to operational positions are given the equal opportunity to benefit from the findings of this study.

7.5 Reflections

7.5.1 My epistemological and ontological positions as a healthcare educator, a nurse and an online student

My initial zeal for conducting the study was under the influence of my awareness of the increased intensity of introducing e-learning, particularly in the form of dialogue-based online collaborative learning in healthcare education. As a healthcare educator, I was very much concerned about its increased use in IPL, especially if it was introduced in the name of flexibility for learning. This was because the latter seemed to suggest successful IPL was secured, so long as there was online conferencing participation by a heterogeneous group of HCPs. On top of this reason, I was even more concerned about the potential increased use of the asynchronous learning tool, as I was well aware of the longstanding implicit power relations amongst the nurses and also

between nurses and the AHPs in practice. Hence, the greatest impetus for the study arose from my concern for successful IPOL, was not just based on my role as a healthcare educator, but more specifically as a healthcare educator who has a nursing background.

I, therefore, saw the importance to explicitly reveal my position as a nurse, other than my role as a healthcare educator. The acknowledgement of my position was provided in the introductory chapter and reiterated in chapter 3 of methodology and methods. By acknowledging my ontological and epistemological position, it provided details about my background and my relationship to the chosen topic. The explicit acknowledgement of my several positions in relation to the study would have been able to allow others to have a good understanding of the platforms from which I had discursively constructed the knowledge of student online learning experience, and this in turn had allowed readers to be able to make better judgements about my positioning in this field of study.

However, in revealing my positions, it at best acknowledged the reflexive nature of this study. What was really more important for me to do was to constantly remind myself of the significant influence I had in terms of my thoughts, beliefs, actions and awareness on each and every process of this study. This was particularly important when I was also a student participant in the conference. Because of the constant self reminding of my influence based on my various 'insider' and 'outsider' positions in this study, specific strategies were able to be well thought out and implemented at the different stages of the research process. As a result of the specifically designed strategies, only then was my reflexivity addressed adequately.

The next section included in the thesis is to provide some discussions on the important reasons for addressing my reflexivity particularly when this study mainly involved discourse work. It will do so by first discussing the complications that arose

from my positions. It then moves on to discuss the mechanisms I had taken to address my reflexivity in this study. These discussions were important, for they helped to demonstrate further, my understanding and awareness of the attributes of the limitations in the methodologies – mostly resulting from the triadic relations and meanings inherent in my positions as a nurse, a healthcare educator and a healthcare student in relation to this study. They were also essential to provide some explanations on how I had strategized in order to keep the unavoidable limitations at bay, in order to achieve rigour and ultimately, transferability of this study.

7.5. 2 My ‘insider’ and ‘outsider’ positions

7.5.2.1 Benefits of my ‘insider’ and ‘outsider’ positions

All along, I have had a deep seated interest in how nurses created and recreated ourselves and our place in healthcare. Due to my commitment and close relationship with the development of the nursing discipline, I cannot deny the fact that I am at risk, indeed at a high risk of having discursively constructed an alternative set of truths, that was about only certain aspects of the online IPL experience. My political stance in nursing was perhaps a critical concern in this study particularly for those discourse analysts who did not endorse any critical stance but who saw the importance for analysts to adopt an objectivist approach to discourse data (Schegloff, 1997). This concern of those who endorsed an uncritical stance in approaching discourse data was reasonable, particularly when the choice of the research methodology in this study, was indeed based on my political drive in IPOL. I, as the researcher being a healthcare educator with a nursing background, would easily give others the impression that interpretations of the discourse data were within a social context of nursing, which was driven by my own political nursing interests.

Indeed, the descriptive linguistic analysis was influenced by my 'outsider' position when it extended to social analyses of wider institutional and nursing contexts. However, my 'outsider' position was coupled with my 'insider' position, such that the social analyses were performed with local context sensitiveness, that the analysis as a whole was rigorous. Nevertheless, based on the fact that I was also responsible for generating the discourse data as a student; hence, whilst assuming an 'outsider' position, I had also assumed an 'insider' status in this study. In this regard, quality interpretations of the discourse data were secured. This argument was based on the fact that the discourse used for analysis was context dependent, that having a student status added advantage to the study.

7.5.2.2 Contentious issues of the dichotomy of my 'insider'- 'outsider' position

As discussed in chapter 3, my 'insider' position in the context of online IPL which might have appeared to be incidental, was in fact a result of my realist perspective in discourse. It was in this perspective that I was able to see student experience as something being co-constructed in the ongoing learning process. The choice of the analytical tool of CDA was similarly, due to my insistence in upholding the realist view. It had led me into a critical view about discourse, and hence a conscious engagement of a complex balancing act between securing the appropriateness of the source and type of data and my choice of a discourse tradition that was in line with my view of the implicit power relations in healthcare. It was in this balancing act of ensuring that this study, when conducted would best answer the research questions; I was led to assume an 'insider' position. However, this 'insider' position which was desired by any ethnographer (Winch, 1958), who at the same time would have concerns about it becoming a site of contestations (Budgeon, 2003; Crossley, 2001) was also my source of concern in this discourse work. Particularly when this study involved power

relations, my 'insider' position when enacted was likely to tend towards the very pitfalls it had intended to avoid.

Nevertheless, it is important to be reminded that the discourse data in this study was generated in an authentic learning environment and was neither a product of an interview nor a result of a focused group discussion, in which case I, the researcher had not helped in generating specifically for the purpose of this study. However, in terms of the interpretation of the discourse data, this does not dismiss the fact that my 'insider' position would still remain a highly contentious site for complications. Just as much as any critical discourse analysts' work conducted with the aim of addressing social injustice to expose the covert dominance exercised by the dominant on the dominated, this study was conducted with an aim to uncover problematic issues in IPL; and, to reveal power relationships which affected online learning. Yet, being the sole researcher in this study, I formed part of the dominant group in the online community. Since CDA came from a discourse tradition where the work was to challenge the dominant (Fairclough, 2003), the complications from the dichotomy of my 'insider'- 'outsider' positions were unavoidable in this discourse work. It was likely for my positions to become a site of contestation, that both my political stance and my ontological knowledge of the relationship between the online discursive practices with social practices would have untoward influences on my interpretations of the findings. Not that I would purposefully exert a dominant influence on my interpretations, but I cannot dismiss the possibility that my various complex positions in relation to the current study, could give rise to complications in this critical discourse analytic study as much as those being found in other discourse work. These complications, if present, are usually multifaceted and can give rise to debates similar to those generated by other discourse work such that they were likely to vary in the range of an epistemological to a methodological perspective (Wetherell, 2001).

Despite the complications, discourse analysts are warned to maintain a critical stance in order to contest ideological views (Fairclough, 2003). An important thing for discourse analysts who are politically engaged is to make sure that they do not slip into an unconscious act in reproducing the ruling political climate (Fairclough, 2003). Since the potential complications due to my positions and their relations with this study were unavoidable, I have taken Fairclough's (2003) advice that whilst maintaining a critical stance, I had utilised some specific mechanisms to ensure that the study would not end up reproducing or reinforcing the implicit power relations it uncovered. Therefore, I had made sure that my reflexivity was addressed right from the start of the study as well as in the subsequent stages of the research process in the entire study. I had reflexively acknowledged the critical discourse theory, my own nursing values and politics which guided these studies, so that they could all be taken into account when it came to evaluating my claims in the study. Discussions in the following section 4.3 explain how this was achieved; ultimately, I was able to maintain my political stance in approaching the data, while at the same time preserving my accountability of this study such that my version of discourse of student learning experience was kept in tune with post modern sensibilities, which was far from any claim to an epistemological status.

7.5.3 Specific mechanisms to address my reflexivity

7.5.3.1 Analysis was scrutinised by experts and non-experts in the subject area

I appreciate that discourse analytic work is not just interpretative but also explanatory. However, to provide an objective and a definitive truth about any post modern debates in the effectiveness of asynchronous online conferencing for higher learning was never the agenda of this study. As discussed in the chapter of methodology and methods, the study was based on my assumption of language as a powerful tool in the construction of views. Whilst this realist perspective in discourse had led me to

appreciate that that there was no one truth in any observations, it had helped me to see the need to use specific mechanisms for addressing my reflexivity.

However, in as much as I saw the importance of recognising that this study is about constructing an alternative set of truths about student online experience discursively, I also appreciated that my construction of 'truths' might have been narrowly based on my own epistemological and ontological positions, both of which might have been driven by my political stance. Hence, in the entire research process, I was actively drawing attention to my own rhetorical and discursive devices so as to undermine my own interpretations of the data. For this very reason, my interpretations were constantly opened to further analysis. I had done so through many means. These strategies currently employed had created multiple opportunities for verification of the findings throughout the entire study. It certainly had reduced drastically the risk of my constricting the analysis basing it on one narrow personal world view.

First, Professor Derek Colquhoun who has the expertise in critical discourse analytic work and Doctor Peter Draper who has good nursing knowledge were both invited to supervise me in this study. Having two supervisors from different but relevant disciplines might have been coincidental and perhaps even inevitable since this study involved transdisciplinary work. However, the selection of the two supervisors was a purposive strategy employed in an attempt to ensure that my knowledge was opened to scrutiny by experts from different but the necessary relevant perspectives, such that all my interpretations were guided and checked against any possibility of the imposing of my personal beliefs and/or my nursing values in the interpretations.

Further to ensuring that there was supervisory work of the two supervisors from the different relevant disciplines, I had also demonstrated explicitly on how the analysis was done. Illustrative examples were presented in chapter 5 to demonstrate how the texts were analysed. This allowed readers to check the ways in which the findings were

derived. Other than these strategies, the findings of this study were shared openly with a few nurse lecturers and non-nursing lecturers in the faculty and also, with two of the online participants (one nurse and one AHP). This was to allow others to check that my interpretation was generally acceptable. In this way, my knowledge constructed under the supervision of the two experts of different subject areas and disciplines, was further opened to scrutiny and challenges by nurses who were out of the context of learning, as well as by HCPs who were familiar with the local context of IPOL.

7.5.3.2 Analysis checked with local participants who produced the discourse

Another important strategy I have adopted to account for my reflexivity was the ways in which the analysis was conducted. The analysis did not stop at the point where an understanding was gained from the patterns found within the elements of nursing language as a conventional linguistic system. Unlike other discourse analytic work which used CDA, instead of drawing social implications from the derived patterns found in written texts for unidirectional communication, the analyses in this study went on to include analysis of the social implications found in the local production of the discourse; students' responses to the MBPPs/SIPPs. Thus, this study had not only been based on my single view, for my interpretations were challenged by 'outsiders' and reviewed by two 'insiders', but it had also been validated by the views of all participants, who were responsible in producing the discourse data in an authentic learning environment.

Due to my continuous observation of my realist position, an evaluation criterion was self-generated in this study. In this study, the evaluation was intrinsically the analysis, such that my interpretations were continuously evaluated with the data that had been produced in a natural authentic learning environment. Not only had these data not in any way been tarnished by the influences of the researcher, but this study had been

evaluated by the analysis of the participants' view, produced in the context where students were experiencing the IPOL. Every little chance for prescribing the analysis as a result of my various positions was avoided. Most importantly, credibility and trustworthiness to the descriptions of the phenomenon, found in this study were achieved. Despite this claim, it was still important for me to issue a word of caution with regard to the applicability of this study in the context beyond its own. This is done in the next section.

7.6 Strengths and limitations of the current study

7.6.1 The discourse data as products by a specific group of HCPs in a specific context

As discussed in the earlier section, the issues and concerns about the possibility of my riding roughshod over the local interpretations by the HCPs were addressed adequately through my full activating of a continual reflexive mechanism in the entire research process. However, there might still be concern about the transferability of this study. The pieces of messages that were analysed in this study were indeed from only one single conference produced by a specific group of HCPs. As such, the discourse was context bound. When the learning experience were created uniquely by the interactions of a particular group of HCPs in a specific context, naturally, the knowledge of student learning experience generated in this study was situated knowledge. The findings gleaned from this analysis might not represent all other IPOL situations. At best it represented only a fraction of the complete range of different types of messages which were available in other IPOL situations.

Any concerns about the applicability and transferability of the study which emerged from the concept of generalisability, was surely an influence of quantitative approaches based on a positivist view. This certainly is not the tradition in which I was working in this study. Indeed, as discussed before, I was working from a post-positivist

view based more on a critical and pragmatic realism, that student learning experience were believed to be locally produced as students co-constructed their knowledge in an IPOL text-based environment. This was exactly the reason why I had employed a different set of criteria for evaluating this study - all of which had been described in the earlier sections. The analysis of the study was certainly framed within some alternative and plausible explanations of student IPOL experience, produced by the power produced in and producing the nurses' texts in the conference. The different evaluation criteria which were self generated due to the constant addressing of my reflexivity might suffice my justifications for rigour and hence transferability of this study. However in the defence of my argument, it is prudent for me to present more discussion on the strategies I had employed. This is to allow the reader to appreciate how the rigour of this study was ensured, that the findings of this study are transferable and have implications for future interprofessional online practices and other contexts.

Very often, studies which employed critical discourse analysis used only one piece of a written document. This might be a government document or policy or a newspaper or published book to describe their patterns from which potential social implications were made for emancipatory changes (Taylor, 2001). For this reason, critical discourse analysts were like any other qualitative researchers, in that they were often at risk of criticism for having used only a small amount of discourse data (Taylor, 2001). Just as much as I did not believe that the construct of knowledge in this study would benefit if it was based on a huge amount of discourse data, I too agree that a small number of texts do not make a field. I was also concerned that any findings based on a selected few discourse specimens as data would become highly unlikely to achieve transferability. Hence, in contrast to all discourse analytic work which involved CDA, I had involved the use of two large volumes of messages that were produced over a 11-week period mainly for collaborative learning. Simply because of the lengthy time

period taken for the texts to be produced in a natural interactive environment by the HCPs for IPL, despite of the fact that these messages were produced by only one group of learners, the production was over a considerable length of time, the creation was therefore under many varied social circumstances. Moreover, as discussed before, the student population comprised many nurses mixed with a few AHPs that this IPOL reflected a typical community of learners in IPL.

In summary, messages that had been analysed were presumably those that were produced in varied social contexts by a group of HCPs which was representative of other IPOL groups. Indeed, the material effects found in the current study had echoed those in previous studies (Alexander et al., 2003; Burge, 1994; Cartwright, 2000; Curran et al., 2003; Hammond, 2000; Murphy & Coleman, 2004; Ross et al., 1994; Saunders & Heyl, 1988), that the current study was representative of any IPOL situations.

Besides, the texts selected from students' online contributions as specimens for CDA were systematically done with reference to statistical analysis, that no meaningful texts for analysis were left unexamined; rigour of the study was instead attained through the selection process. The selection of messages with reference to statistics had most certainly not only secured a meaningful data selection, but it had also provided some useful information which complemented the findings of CDA of the selected texts. Otherwise, a good knowledge of the effects of nursing language on IPOL would not have been acquired.

Most importantly, unlike other CDA work which involved analysis of non-interactive written documents whereby analyses did not involve the analysis of responses of the texts for evaluation, the results of the current study were analysed and evaluated by the analysis of participants' own interpretations of the texts. Again, this data for evaluation were also produced in a natural learning environment. They were

therefore, not subjected to the influence of the researcher as seen in previous studies whereby interviews were employed to gather student learning experience. For all these reasons, the results of this study were to a large extent, relevant and applicable to a wider context of other IPOL situations.

Having said that, it is important for me to reiterate that discourse analysis is interpretative and explanatory. Thus, it was not assumed in this study that the findings were objective and the analyses were a definitive uncovering of the ‘truth’ about IPL between nurses and AHPs. This study however, had provided some plausible explanation for the findings of this current study, as well as for those found in previous studies, about HCPs’ experience in IPOL. Thus, the findings through the analysis of the selected messages which demonstrated the impact of student learning experience from the use of nurses’ language that it had been closing, limiting and controlling were definitely a useful source of information for a wider context of other typical IPOL situations.

7.6.2. The discourse data as a product in a natural context of learning

7.6.2.1 Further exploration on student learning experience based on volunteered information was not possible

Student learning experiences were largely derived from the information gathered from the patterns of interactions derived from CDA. The latter was based on the linguistic features and lexical choices in students’ contributions as either parent postings or students’ responses to the original messages. Since students’ contributions were volunteered by students based on students’ current experiences of the online learning situation, useful and meaningful knowledge about student learning experience was generated from the analysis of the students’ contributions.

Whilst the availability of discourse data relied heavily on students' responses on a voluntary basis in a naturally conversational environment, not all students contributed to online learning voluntarily. In this sense, the volume of discourse data available for analysis was limited and fixed. In addition, for those who contributed, few had volunteered their feelings and views on the ongoing online learning process. Therefore, there were not many texts released by students on a spontaneous basis, which revealed student learning experience. Texts of this nature were also limited to only a few students who were courageous enough to cast their feelings and opinions about their current learning experience into the public domain. When the analysis and the evaluation of the analysis could only be done on the amount of information that was available, the views of a minority of students, some of whom did not participate in online learning and others who did not discuss their views and opinions openly were not known. Thus, knowledge of student learning experience based on students' perspective was limited, and also, could not be clarified further. This leads me to my discussion on another limitation in this study in the next section.

7.6.2.2 Further exploration on contradictory findings, emerged from volunteered information was not possible

In this study, while there were obvious signs indicating that learning was restrictive and collaborative learning was rare for formal learning, there was also evidence to suggest some students were happy about the way learning took place. Since this study relied on only data that was produced in a natural context, it had not been possible to explore this paradoxical view in depth. We could never be able to fully understand the learning needs of all students, particularly the minority few who were only active in certain discussions and less active in the overall participation. Yet finding ways to meet all students' online learning needs was the ultimate goal in this study.

Before I go on to discuss my concern about meeting the learning needs of all students, it was important for me to clarify my concern, that it was not so much related to a financial perspective, in which there is a re-conceptualisation of students as customers. In today's economy based society, the concept of students as customers is strongly emphasized. Needless to say, educational service providers are often compelled to work towards surpassing student expectations, but may do so based on a business context. From the discussion thus far, it is clear that the effects of this study can potentially upset a particular group of customers, whose presence as students have always been the major source of funding from the National Health Services authority to support the functioning and survival of any healthcare departments in higher education institutions. These are not so much any HCPs but the nursing majority. It is clear that the findings of this study challenges nurses' established authority and are likely to debunk the accepted wisdom of nurses, which ultimately is to discredit the status quo of nurses-nurses and nurses-AHPs interactions. For this reason, if delighting customers higher than their expectations was the agenda in this study, this goal was not likely to be achieved.

By highlighting my political stance here, I am not denying the importance of meeting student learning needs which was based on a financial and business perspective. I, too agree that it is important for healthcare education services to surpass the expectations of students, especially when they are the major source of revenue crucial for the survival of any healthcare educational units in HEIs. It is therefore critical to appreciate the importance of meeting student learning needs from a business perspective. However it is even more important for me as a healthcare educator to do so for pedagogical reasons. Therefore, my central argument in meeting students' needs in this study was more focused on how online learning can be made accessible to all HCPs and not just to nurses, so that all can benefit from IPOL.

Keeping in line with the above argument, this discourse analytic work has therefore been intended for empowering all HCPs with equal access to learning right from the start of the study. Based on the original intention of this study, it is important that the learning needs of all students are explored. In other words, it is critical that we seek to understand the contradictory student learning experience emerged in this study. Otherwise we will never have the answers in full to two important questions which were implicit in the students' paradoxical views:

- i. Should we simply assume the benefits of implicit power relations in IPOL?
- ii. Do we actually need to resolve the problem of implicit power relations in IPOL?

Without having any answers to the fullest extent for the above questions, any recommended corrective actions for educational reform may have been based on a partial view. Acting according to a partial view of the problem, another barrier to IPOL, which we want to avoid may be created. The following section discusses how further exploration of the contradictory findings could have been possible in the current study.

7.7 Discursive Psychology (DP) to explore the emerged issues in the current study

It was appreciated that the research methods being employed in the current study have left some aspects of student experience that had emerged remained unexplored. This might have possibly left the study with a partial view of the whole student learning experience to a certain extent. If this study was to be conducted all over again, the experience of the HCPs who were currently participating in IPL would be explored alongside a focus group discussion. Specific questions based on findings of CDA of the texts, could then be initiated to generate student online conversations to explore issues that had emerged in the current study. The results of which could be analysed using a discourse analytic tool derived from another discourse tradition; discursive psychology (DP). The reason for suggesting the use of DP was because underpinning discursive

psychology is the view that experience is co-constructed as people socialise discursively, and for that reason, DP has been used extensively by some discourse analysts (Bülow & Hydén, 2003; Guise et al., 2007; Horton-Salway, 2001; Tucker, 2004) to explore how people talk about the illness of Myalgic Encephalomyelitis (ME) and its causes to determine how sufferers make sense of the definitions and causes of ME, rather than what others (non-sufferers) know from what had been defined by the medical experts based on medical authoritative knowledge.

If DP had been concurrently used to analyse a focus group discussion in the present study, it would have been able to explore how each individual HCP had made sense of their online learning experiences. In other words, if DP was used to analyse discourse produced in the time period when HCPs were still experiencing IPOL, any students' learning experiences derived from the analysis would be those that had been produced locally by the participants themselves. As such the legitimacy of related claims could reside more safely with the students involved with the local production. In other words it could have resided even lesser with the researcher's and the reviewer's identifiable and discrete knowledge of nursing discourse than what the study has now achieved. The study could have yielded results which would have helped in providing more insights to the learning experience of all the HCPs that were from the students' perspectives. In this regard, for any future research which intended to use CDA to analyse data from an authentic IPOL environment, it might be worth considering organising a concurrent online focus group discussion, so that analysis of the generated discourse using DP could be performed. The results of which could then be used to verify with those which derived from CDA, so that more rigour of the study could be obtained in the understanding of the HCPs' online learning experience.

7.8 Future research to address other aspects of ineffective interprofessional online learning (IPOL)

The way in which the current study was conducted might have been one which Fairclough (2003) would agree was a productive way of doing social research. Indeed, the use of CDA has facilitated the social analyses of the issues surrounding IPOL which was more grounded in the online texts. CDA had also allowed a linguistic analysis of the online texts for the social issue of inequitable IPOL to be potentially addressed. However, it was appreciated that the use of CDA on some specific texts and order of discourse, was not to suggest that the reasons for low student participation rate and limited learning were attributed to nothing except the presence of nursing discourse in the conference. Although, it was evidenced that student learning experience were indeed influenced by the power produced in nursing discourse which produced it, any single description of language would not have been able to cover all different types of online situations where nursing language was used. The analyses in this study were never exhaustive and furthermore, my interpretations could have been just one of the many plausible explanations to student IPOL experience. This was particularly so when taken into account of the fact that some paradoxical views about student learning experience that emerged in the current studies had not been explored to a greater depth (as discussed in the above section).

Moreover, it should be appreciated that language formed only a part of social life (Fairclough, 1989); and every social event should not be attributed to discourse alone. As warned by Fairclough (1989: 2) that the focus on language in social research is not about “reducing social life to language”.

In this light, there might be many other reasons as to why there was unequal access to learning and skewed online participation. One might not be able to dismiss the existence and importance of materiality and the non-discursive domain, which could all have, in

one way or another, attributed to the social phenomenon as much as language. However, due to limited resources and time, these other important aspects of social life which were important attributes to the student overall learning experience were not explored in this study.

Therefore, other than complementing CDA of the texts with analysis using DP, it is important for future research studies to examine other ways by which IPOL might be affected. Future research could do so by employing different research approaches, such as ethnography and institutional analysis. Such approaches as proposed by Fairclough (2003) which complement CDA could be used in conjunction with a critical discourse analytic approach to look into other aspects of IPL. The following questions which had not been raised in the current research can then be explored and answered in future research:

- i. Does group composition in terms of professional identities affect IPOL? How will a low population of AHPs versus a high population of nurses, and vice versa within an IPL situation make a difference to the online learning experiences?
- ii. Do the nature of HCPs' job commitment, responsibilities and professional job status, have any effect on IPOL? Are there differences in the interactions between matrons versus junior nurses/AHPs and specialist nurses versus general nurses/AHPs that are likely to affect online learning experiences?
- iii. How do the years of work experience as an HCP affect students' learning in IPOL?
- iv. To what extent will individual understanding of IPL and attitudes towards IPW affect students' IPOL experiences?
- v. How do students' general concepts of formal learning affect their IPOL?

7.9 Conclusion

The use of CDA had established the dialectical relationship between language use in the conference and the other elements of social practices. It had demonstrated that discourse in the conference for formal learning predominantly emerged as the wider discourses in care planning and incident reporting. These discourses, which were a result of nurses' hegemonic struggle for alternative discourse to medical discourse, were also used by nurses in the same way as in the conference to signal membership and authority. However, the hegemonic struggle alone might not have caused nurses to act in the manner in which they did in their discursive practices. It might have also been through knowing that alternative discourse would bring a new set of unique identities for nurses and membership in nursing, that nursing discourse had been prevalently used in nursing practice to achieve professionalism (elitism).

Following this view, the IPOL was perhaps interpreted by nurses as a space given to them to present their thoughts and practices to work in favour of building their professional identity and nurses had taken the discourse in the conference as representative of nurses' discourse. Therefore, it could be seen that the notion of caring underpinning nursing practice was also intensely practiced by nurses, so much so that learning tended to take the form of nurse-control. A few nurses were seen to even govern others' online learning in the process of exercising judgments as legitimate assessors. All these rhetorical discursive moves had then resulted in restrictive and uncritical learning experience of the HCPs. The findings of this study quickly put any heavy reliance of ACMC for post-qualifying IPL which involved nurses under scrutiny.

The social effects of nursing discourse and informal discourse emerged in this study were important implications of IPOL. In this regard, anyone who had vested interests in online IPL should be made aware of the root cause of its problem which impeded online learning. One needed to be made aware that nurses' language use which

was constructive in some contexts could be constraining in others. Otherwise, nurses could not be empowered to make the necessary adjustment to their language use to facilitate IPL.

In any case, IPOL which was implemented to advocate the notions of empowerment, inclusion and equality learning is more likely to fail than to succeed, if the very fabric of that implementation is interwoven with ideas which regard ACMC as a value-free medium for learning that is, at the same time, clouded by ideas which focused narrowly on its potential for flexible and cost-effective learning. It is therefore recommended that the findings of this study be disseminated to all nurses involved; this meant nurses functioning at all operational levels, including nurse academics, researchers and educational policy makers of IPL. Whilst I advocated for adjustment to nurses' language use for IPOL, I was also conscious that the transferability of this study might be questioned. This was particularly so when this study was initiated, in the light of my concern as a nurse educator for the use of text-based learning for IPL, that the political power inherent in my position as a nurse could easily complicate my 'insider' position as one of the student participants. However, I was conscious of my relationship with this study right from the start, and it was this reflexive consciousness that had helped me to forestall the contestations that emerged from the dichotomy of my 'insider'- 'outsider' position. This, in turn had allowed the reflexive nature of this study to be constantly addressed. I had done so through continuously engaging in mechanisms that would help to take my reflexivity into account at every stage of the research process. When the influence of my various relationships with the study was consciously and constantly addressed, good quality interpretations of the discourse data were secured for the possibility of transferability of this study.

Indeed, it was my realist standpoint in discourse, that various mechanisms which aimed to address the reflexive nature of this study were engaged. Without basing the

research on a realist view, it would have been impossible for me to have achieved rigour of this study that was enough for its findings to be acceptable and transferable. The research method meticulously employed was based on a critical realist view point, and for this reason, the findings had great relevance in a wider social context.

However, I would like to maintain Fairclough's view (2003) that social life should never be reduced to discourse alone. In fact, it is very unlikely for one to deny the fact that there were many other aspects to accessible or inaccessible online learning in the conference. Since, all of these other aspects were beyond the scope of this study and were therefore, not addressed in the context of the current research work. Naturally, without being explored, these other social aspects which could have highlighted another set of plausible explanations to the research problem had remained unknown. With that in mind, it was important to appreciate that the findings of this study were just one aspect to a wider spectrum of students' online learning experiences in IPOL. In other words, the socially 'constructive' effects of discourse found in this study were just one of the many aspects to the many possible problems and barriers to IPOL that the view in this study might need to be supplemented and/or complemented or otherwise, refuted by future research work.

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