What Affects Engagement in an Educational Online Community? Investigating a Blended Learning Course for Primary School Teachers Undertaking Postgraduate Professional Development.

by

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Abstract

Participating in e-learning communities is a valuable way of enhancing teachers' professional development (PD). However, teachers' engagement with asynchronous online platforms can be affected by feelings of anxiety, a perceived lack of connection to others and technology issues. The purpose of this study was to investigate the factors that affect students' engagement with e-learning communities through asynchronous Blackboard Discussion Boards (BBDBs) in a blended PD course for primary school teachers. Using a case study approach produced rich data through the use of focus groups and interviews to explore students' and tutors' perceptions of the BBDBs, and their preferences for online and face-to-face learning.

The overall finding revealed that participants' engagement with online communities is affected by several interrelated factors, some of which distinctly relate to being human (i.e. emotions, relationships, power relations, agency, prior experiences and personality), whilst other factors relate to the usability of technology. These factors influenced the participants' engagement with both the BBDBs and other online platforms. Additionally, this research identified that students created e-learning communities using social media platforms, which were a valuable source of professional, academic and personal support. This thesis contributes to the pedagogy and theory of e-learning communities through identifying several crucial elements which support the conditions required for people to make meaning with others through online communication. Through conceptualising online communication as a social literacy practice and closely examining how students experience the practices of face-to-face and online communication, this research extends the Literacies for Learning in Further Education framework, offering a contribution to the field of social literacy studies. Furthermore, through discovering that several complex interrelated human responses impact on people's entanglement with others through online platforms, this thesis offers a contribution to the growing body of literature on posthumanism in digital education. These conclusions may be useful to educators who are designing online or blended learning courses in terms of understanding the factors that are crucial for meaningful engagement and learning.

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Abbreviations

BB	Blackboard
BBDBs	Blackboard Discussions Boards
BERA	British Educational Research Association
C&IT	Communications and Information Technology
CoI	Community of Inquiry
CoP	Community of Practice
CPD	Continuing Professional Development
DA	Data Analysis
DfE	Department for Education
FG	Focus Group
GT	Grounded Theory
HE	Higher Education
HEA	Higher Education Academy
HEFCE	Higher Education Funding Council for England
HEI	Higher Education Institution
JISC	Joint Information Systems Committee
LfLFE	Literacies for Learning in Further Education
LO	Learning Opportunities
MA	Master of Art
NA	Narrative Analysis
NCIHE	National Committee of Inquiry into Higher Education
OTCPD	Online Teacher Continuing Professional Development
OTPD	Online Teacher Professional Development
PD	Professional Development

PGCert   Postgraduate Certificate of Education

PGCTHE   Postgraduate Certificate for Teaching in Higher Education

PGDip   Postgraduate Diploma of Education

PGPD   Postgraduate Professional Development

SNS   Social Networking Sites

SMP   Social Media Platforms

TA   Thematic Analysis

UCLan   University of Central Lancashire

UK   United Kingdom

ULS   University Learning System

US   United States

VLE   Virtual Learning Environment

Dedication

This thesis is dedicated to my husband Ant, our wonderful children, Thomas and Lucy, and to my parents, Carole and Tom.

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I wish to thank my director of studies, Professor Candice Satchwell for her invaluable advice, encouragement, patience and kindness throughout my doctoral journey. Thank you for your support and guidance.

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Finally, I thank my wonderful husband Ant for his love and support, my children Thomas and Lucy, and my dear mother Carole for their inspiration and encouragement throughout my studies.

CHAPTER 1: INTRODUCTION

Thesis Structure

In Chapter One I introduce the focus of my thesis, providing contextual information, and presenting the rationale for undertaking this research. The chapter outlines the main aims and the significance of the research, and the way the study was conducted.

In Chapter Two, I discuss the main theoretical perspectives that influenced my research, including my rationale for drawing from Wenger's communities of practice (CoP) theory (1998) and the Literacies for Learning in Further Education (LfLFE) framework (Ivanič et al, 2009) to examine aspects of my research. This discussion is structured around my main research objectives and includes theories relating to online and face-to-face learning and communication.

Chapter Three presents my ontological and epistemological position, as well as discussing my selected methodological approach of case study, the chosen data collection methods, issues of trustworthiness and ethical considerations.

Chapter Four provides detail on the process of data analysis. It explains the use of thematic analysis to explore the data gathered and my use of a research diary to capture my own reflections about the data.

Chapter Five details my analysis and interpretation of the main themes derived from the thematic analysis, supported by pertinent extracts of data. The chapter concludes with a presentation of the key findings which emerged from this analysis.

Chapter Six provides a theoretical discussion of the key findings structured around the main research questions. The main findings are analysed against key literature, including aspects of Wenger's (1998) community of practice theory and the Literacies for Learning in Further Education (LfLFE) framework (Ivanič et al, 2009), also the links between my findings and posthumanism are explored.

In the final chapter, the conclusions and recommendations (including suggestions for further research) which developed from this research are presented. The contributions made by this thesis to practice and theory are discussed, as well as the strengths, limitations and authenticity of my research. The chapter closes with my reflections on the doctoral journey.

My Role

I qualified as a primary school teacher in 1999 and subsequently enjoyed teaching in two primary schools for seven years. In 2006 I took a career break to raise my family whilst completing a Master of Arts in Education (MA) degree. Whilst planning my return to teaching in 2009, I was invited to work as an Associate Tutor (AT) at the University where I had undertaken my MA, and at this point I made the transition into teaching in higher education (HE). The University will be referred to as 'University A' throughout this thesis. This new role involved teaching on a new Government funded postgraduate blended learning[1] programme for primary school teachers. I firstly supported the delivery of the postgraduate certificate (PGCert) phase of the programme which included a blend of e-learning through the University Blackboard (BB) platform and regular compulsory face-to-face sessions. As the programme developed into a full MA qualification in 2014, I undertook the role of tutor on the postgraduate diploma (PGDip) phase and module leader for the final MA phase.

The change in my role to module leader of the MA phase presented a personal challenge for me as it involved leading modules that were mostly delivered through the BB online platform with a reduced number of optional face-to-face teaching sessions. As an educator with no formal training with regards to online teaching, I was eager to develop a better understanding of how to effectively teach in this way to ensure the students received a rich online learning experience to support their professional development (PD). Consequently, I examined these issues further through undertaking a small-scale research project for the Postgraduate Certificate in Teaching in Higher Education (PGCTHE) qualification which explored student perceptions of the strengths and

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[1] Blended learning is described as courses that 'combine elements of face-to-face delivery with distance learning' where students attend periods of face-to-face teaching that are 'followed up by engagement with online teaching resources and guided independent study' (University A, 2019: 14).

weaknesses of the virtual learning environment (VLE). The findings of this project indicated that most students believed that the VLE supported their learning. However, during the follow up interviews, two students revealed they felt 'unsafe' and 'anxious' to engage with the BB communication platform, namely the asynchronous blackboard discussion boards (BBDBs), and one student reported they felt it important to belong to a community of learners when working online.

This finding concurred with my personal experience of the BBDBs, through which I had observed that students on the course rarely used them to communicate with each other. These results prompted me to question whether students are more likely to engage with e-learning communication if they feel safe and also if they feel a sense of community. I also questioned how I, as a tutor, could support students to engage with each other online, to build an e-learning community which could further enrich their PD.

Rationale

This study builds on the findings from my earlier research described above. It also stems, in part, from my growing concern that students could be missing out on important opportunities for critical discussion with others, such as closely examining aspects of their practice, especially if they are afraid to fully engage with online communication through the BBDBs. This is a particularly important issue given that the standards for teachers' PD by the Department for Education (DfE, 2016) expect that PD includes planned collaboration between teachers. More specifically, the implementation guidance for these standards recommends that providers of PD support teachers to 'Engage openly in discussion about the impact of teaching practice with peers and leaders' (DfE, 2016: 11), including providing teachers with opportunities for 'structured collaboration and discussion' about their practice (DfE, 2016: 9). Moreover, it has been widely discussed that having opportunities for explicit discussion and critical reflection through collaborative learning can help to transform teachers' classroom practice (Advisory Committee on Mathematics Education, 2013, Cordingley et al., 2015).

As a tutor involved in teaching many of the face-to-face sessions over the years, I have witnessed what I perceive to be rich, open communication and discussion between students during the face-to-face sessions. The programme modules were designed to

provide students with the chance to critically discuss their own and colleagues' practice both through school-based collaborative enquiry assessment tasks, and also through opportunities offered through face-to-face and BB engagement. The student feedback about the face-to-face sessions had been consistently positive regarding the impact they had on students' practice development. However, I had observed that students did not regularly engage in online communication with each other through the BBDBs. This observation concerned me because if the students were not engaging with each other through the BBDBs, and if they were not able to attend the optional face-to-face MA sessions, they could be precluded from crucial opportunities for critical debates with others to enrich their PD.

Furthermore, the use of discussion fora to provide two-way communication between students is a requisite of the University's 'Virtual Learning Environment (VLE) Baseline' requirements. The initial 'VLE Baseline' was introduced in 2008 as 'a strategy to provide a consistent student experience' within University programmes (University A, 2019: 15), and it was a way of 'auditing' a programme's VLE presence (University A, 2019: 20). Tutors in my setting are expected to achieve the VLE Baseline requirements whilst striving to address the advanced indicative levels of 'Baseline +' and '++', which were introduced in 2015. However, there is limited explanation provided in the guidance about the ways tutors can encourage effective online communication between students. The guidance recognises that 'the pedagogic expert is the individual practitioner' (University A, 2019: 15), and it suggests that appropriate pedagogy will be developed by academic staff through innovative conversations with learning technologists. It also states that the Baseline requirements will evolve from being responsive to feedback from students and staff.

Through recognising my own lack of knowledge and experience regarding online teaching, combined with the task of achieving the University VLE Baseline requirements, I was quickly prompted to deepen my understanding of online teaching and learning. As previously mentioned, I did this firstly through undertaking a small-scale research project for the PGCTHE qualification in 2013 before commencing my studies towards an EdD in 2015. I hope my EdD findings might provide 'nuanced descriptions' in relation to appropriate uses of technology (Lowenthal et al., 2009: 1) to inform future guidance at

University A in relation to the pedagogic practice of developing e-learning communities. My findings might inform the VLE Baseline requirements, as well as providing insight into ways of supporting e-learning community development which might contribute to the University Vision which is to 'further develop its strong sense of community' (University A, 2020: 9).

The aim of this research was to develop a deeper understanding of the factors that affect the development of educational online communities in a PG course for primary school teachers. More specifically, it was my intention to develop a better understanding of the factors that impact on people's engagement with the University online platform known as the Blackboard Discussion Boards (BBDBs). As the programme under study was a blended learning programme, I was also interested in understanding the factors that impact on students' and tutors' preferences for online and face-to-face learning. Through exploring the views of the students and tutors, it was my aim to examine these issues in depth to understand the ways tutors can support the development of e-learning communities in future, in the course under study and similar blended learning courses.

Contextual Information

This research adopted a case study methodology. The case study was defined as educational in nature, investigating the activity within aspects of a specific educational programme, therefore it was aimed at informing future decisions 'to improve educational action' (Bassey, 1999: 59). As good case studies contain a clear portrayal of the boundaries to the case and include a specific account of what they are (Denscombe, 2010), the following discussion presents a detailed description of the case. In this research, the case was defined as a master's level programme, including the students and tutors engaging with the three phases within this (PGCert, PGDip and MA modules). It is hoped that presenting a detailed account of the course will support the reader to understand the context of PD against which this research was undertaken. Furthermore, providing a rich description of the case may help the reader to determine if this research is transferable to their setting and context (Lincoln and Guba, 2000).

The postgraduate professional development (PGPD) programme is a course for practising primary school teachers delivered at University A. University A is a campus-based university in the North West of England. The students undertaking the programme are all experienced primary school teachers working on a full time basis. All tutors working on the programme started their careers as primary school teachers before transitioning into different roles such as subject specialist consultants and HE lecturers. The main aim of the programme is to develop students' deep subject and pedagogical knowledge to improve the teaching and learning of mathematics in primary school settings.

At the time of this research, the PGCert phase was delivered through a blend of compulsory face-to-face teaching days and the University BB online platform. The face-to-face sessions included a mixture of keynote speakers and workshops led by academic staff and subject specialist consultants. The structured reflection tasks which were encouraged through the face-to-face sessions and BB, were combined with practical activities in school with follow-up reflections, aiming to allow students to embed their learning into their practice. This programme phase also aimed to develop students' ability to provide effective PD to colleagues in their school through classroom-based collaborative activity to increase the quality of mathematics teaching and learning across the primary school system (Walker et al., 2013).

The PGDip and final MA phases were also delivered through a blended learning model, including a mixture of non-compulsory face-to-face sessions and a structured BB VLE. The BB area included a set of teaching blocks presented in the form of structured scaffolds (offered as mostly text-based content) closely linked to the BBDBs, which were aimed at enabling students to understand the requirements of each assessment task. The PGDip phase aimed to encourage students to develop their deeper understanding of different curricula, along with increasing their understanding of leadership. The final one-year MA programme required students to conduct an extended practice development project. The PGDip and MA phases offered a reduced number of optional face-to-face afternoon sessions to reduce the costs for schools of covering supply time to allow students to attend. Face-to-face delivery of the PGDip and MA phases consisted of small group sessions which mostly related to understanding the assessment task.

In addition, formative feedback opportunities were offered through peer and tutor support at face-to-face sessions and through engagement with the BBDBs. This online tool aimed to provide opportunities for asynchronous text-based communication between tutors and students, and peer support between students. For instance, when engaging with online teaching blocks, students were invited to take part in text-based discussions with others using the BBDBs. The compulsory aspects of the teaching and learning strategies employed across the programme were the PGCert face-to-face sessions and the final summative assessment tasks, which were school-based enquiry activities, presented as a 5000 word assignment at the end of each module. Although an expectation was set that students should engage with BB at least once a week, these programme elements were not compulsory in the sense that they were not part of assessed tasks.

The twenty teacher participants were experienced primary school teachers in full-time service at the time of this research, who had between 3 and 29 years of teaching experience. A large majority of the teachers were either upper Key Stage 1 teachers (i.e. year 2 teachers) or upper Key Stage 2 teachers (i.e. year 5 or 6 teachers) who had joined the course to explore the ways in which good mathematics practice can be developed, and shared effectively across school. To facilitate dissemination of good practice across school, teachers were encouraged to work collaboratively with other teachers in their school, in addition to collaborating with colleagues on the course. Over half of those involved held the role of mathematics subject leader, which meant these teachers had an additional responsibility in school. Two teachers also held the role of deputy head teacher. All teachers were qualified and experienced at teaching primary aged pupils in face-to-face ways, using a combination of interactive whole class and small group teaching approaches.

Prior to moving into HE, the three tutors involved in this research were experienced primary school teachers with extensive experience of teaching across the primary school age range, in addition to holding senior roles in school. All tutors had also held roles as subject specific experts. Therefore, they were highly skilled in teaching both children and adults (in face-to-face ways) in a variety of educational settings.

Research Questions

Through exploring the students' and tutors' preferences for online and face-to-face learning and examining the factors that encourage or discourage students from actively engaging with each other through the BBDBs, my aim was to develop a better understanding of how tutors can effectively support the development of educational online communities to support the students' PD. The term 'educational online community' in this thesis refers to members who are mutually engaged with other members to experience 'meaningfulness' (Wenger, 1998: 51) and a sense of community. A 'sense of community' involves members feeling a sense of belonging, feeling that they matter to each other, feeling a shared emotional connection and a shared faith that their needs will be met (McMillan and Chavis, 1986: 9) through being mutually engaged with other members in an online environment.

Through this research, I hoped to identify ways to ensure that all students feel comfortable to engage with online communication so they can experience belonging to an online community, in order to maximise the impact on their learning and practice development.

I set out to answer the following key research question:

What affects engagement in an educational online community?

Four subsidiary research questions were developed to address the main research question:

What are the factors that affect students' and tutors' preferences for online and face-to-face learning?
What are the factors that contribute to active engagement in an e-learning community?
What are the factors that discourage active engagement in an e-learning community?
How can tutors best support the development of an e-learning community?

Research Process

This research drew from a case study methodology (Stake, 1995, Bassey, 1999) using multiple qualitative methods to generate rich data which allowed me to explore the participants' perceptions of their experiences of engaging with the BBDBs, and their preferences for online and face-to-face learning. The participants included twenty students and three tutors who were all engaged with the programme at the time of data collection. Thirteen students took part in standalone individual telephone interviews. A group of five students and another group of two students took part in focus groups which were followed up with seven individual interviews. Three course tutors took part in individual interviews. Data gathering happened alongside data analysis in a layered fashion, and thematic analysis was used to analyse the data which allowed me to explore themes across the data (Braun and Clarke, 2006). Several key findings were drawn from the themes identified from the thematic analysis in Chapter 5.

Terminology used to describe the participants

All the participants involved in this study are qualified primary school teachers, although the three course tutors had transitioned into roles of lecturers in HE in recent years. Throughout this thesis, I use the term 'student' to describe the practising primary school teachers who were engaged with the programme, and the term 'tutor' is used to describe the lecturers teaching on the programme at the time of data collection.

My Positionality

I have conducted this research from the position of a course tutor and a researcher. Given my position as a practitioner researcher with a dual role, it was important for me to be aware of my own potential impact on the research. Drake and Heath (2011: 60) suggest that 'Reflexivity means recognising the part one plays in the research process' through developing a sense of research-informed position. Therefore, I engaged with reflexivity through carefully examining my own potential influence on this piece of qualitative research (Finlay, 2002, Rennie, 2004) at every stage of the process through using a research diary.

Significance of the Research

The overall finding from this research is that students' and tutors' engagement with educational online communities is affected by a combination of several interrelated factors. Some of these factors are distinctly related to being human (i.e. emotions, relationships, power relations, agency, prior experiences and personality), whilst other factors relate more specifically to the usability of technology (i.e. the ease and speed of communication through social media platforms in comparison to the BBDBs). There is evidence to suggest that students' engagement in online communities in this case study was influenced by these factors. Additionally, the online communities identified in this research were created using social media platforms, and the evidence indicates that these online communities were a valuable source of professional, academic and personal support for most students involved.

Through identifying several crucial elements which support the conditions required for people to engage in meaning-making with others (Wenger, 1998) through online communication, this thesis contributes to both the pedagogy and theory of e-learning communities. In this way, this research offers a modest contribution to social learning theories, such as Wenger's (1998) theory, which focus on the conditions needed to support learning. More specifically, my findings contribute to Wenger's CoP theory (1998: 51) in relation to understanding the factors that impact on participation, reification and the creation of 'meaningful experiences' when using technology to facilitate online communication between students, all of which underpin community development (Wenger, 1998). Wenger (1998) suggests that educators need to make early decisions about appropriate provision to encourage participation, reification and the negotiation of meaning. The factors highlighted in my research (i.e. emotions, relationships, power relations, agency, prior experiences and personality) offer a contribution to theory and practice in terms of drawing attention to important aspects to consider at the course design stage, to encourage meaningful engagement when people are communicating together online. Based upon factors raised in my findings, educators could make small changes to practice when they are designing online and blended learning courses in order to encourage, support and nurture meaningful online engagement between students. In this way, my findings could be crucial for educators to create the conditions required to enhance participation, reification and the creation

of meaningful experiences (Wenger, 1998) online, which could enhance the development of effective online communities.

This research also contributes to gaps in literature regarding the impact of affective factors on students' engagement with online communication, which is more scarce than literature which explores aspects of cognition in face-to-face courses compared with e-learning (Reilly et al., 2012). Whilst interest in the emotional elements of e-learning has significantly increased in the last ten years, much of this research has focused on individual learning situations rather than social aspects of e-learning (Hilliard et al., 2019). Furthermore, Hilliard et al. (2019) argue that there is a scarcity of literature with particular regards to the emotions of geographically dispersed adult learners who may be in full or part-time employment. In this way, my research contributes to gaps in the literature regarding the role of emotions on student engagement with online communication for PG, professional learners who are in full-time employment. Furthermore, through discovering that a number of interrelated human responses (including emotions) impact on people's entanglement with others through online platforms, this thesis contributes to current understanding of the complexity of the relationship between students and machines, offering a modest contribution to the growing body of literature on posthumanism in digital education (Bayne and Jandric, 2017).

Through conceptualising online communication as a social literacy practice (Street, 2003) and using the Literacies for Learning in Further Education framework (LfLFE) (Ivanič et al., 2009), this thesis increases understanding of how students experience different aspects of the practices of face-to-face and online communication. In this way, this research extends the LfLFE framework (Ivanič et al., 2009) to include online practices that were not considered in the original study. This research has also shown that the updated version of LfLFE framework can be applied into a different educational context, and used as a tool in a HE setting to support educators to examine and compare different online literacy practices to inform their online practice. This updated version of the LfLFE framework could be applied into other educational contexts, and used by other educators to aid them with closely examining aspects of their online practice. Whilst educators should always take a holistic view of student engagement with online

communities, by identifying individual factors that affect online engagement, educators may be able to change one or more aspects slightly to increase student engagement with online communities. Thus, this study contributes to both the pedagogy and theory of e-learning communities through utilising and further extending the LfLFE framework (Ivanič et al., 2009).

CHAPTER 2: LITERATURE REVIEW

Introduction

The following chapter firstly examines the development of online learning in Higher Education Institutions (HEIs) over the past twenty years to contextualise the focus of this research. A detailed account of the theoretical framework within which this research is situated is presented, along with the rationale for drawing from aspects of Wenger's Community of Practice (CoP) theory. Literature which discusses the potential strengths of online teacher continuing professional development (CPD) for students is explored, before examining theory which explores students' preferences for online and face-to-face learning and the impact these preferences can have on students' engagement in e-learning communities[2]. Structuring the literature review around my main research objectives, and examining similar research conducted in this area, allowed me to develop a thorough understanding of the topic as well as identifying potential gaps in the literature that could be further investigated.

Practice as Meaning Making - Participation and Reification

Wenger's (1998: 45) idea about learning as social participation is centred on the fact that human beings who interact with each other (and with the world) will collectively learn as they work towards a shared goal or 'enterprise'. The outcome of this 'collective learning' is the creation of 'practices' unique to the CoP. He argues that practice involves a 'delicate, active, negotiated, complex process of participation' (Wenger, 1998: 49). Three aspects of practice that are essential to a community are: mutual engagement; joint enterprise and shared repertoire (Wenger, 1998). Mutual engagement involves community members being reciprocally engaged with each other, resulting in them creating their own practices. Joint enterprise denotes the collective response and process of 'negotiation' by group members to their particular situation. Shared repertoire involves community members developing routines, resources and ways of doing, which then become part of the community's practice (Wenger, 1998: 83).

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[2] The literature review primarily focuses on literature regarding e-learning communities in relation to schoolteachers undertaking PGPD. For this reason, students are referred to as 'teachers' throughout this review when the research discussed is specifically referring to schoolteachers.

For a community to develop in the first place, members need to be mutually engaged with each other to experience 'meaningfulness', which Wenger (1998: 51) argues is essential to practice and to learning. The occurrence of practice as 'meaningful experience' is a fundamental element which underpins the development of community building, as well as being essential to all the other aspects of Wenger's framework. Community building therefore involves members being mutually engaged, and continuously constructing their experiences of the world as meaningful, which Wenger describes as the 'negotiation of meaning' (1998: 52).

The experience of meaning is not 'produced out of thin air' (Wenger, 1998: 52). 'Meaning' is negotiated through the interaction of two elements; the duality of 'participation' and 'reification' (Wenger, 1998: 56) which is 'fundamental to the learning theory underlying the concept of communities of practice' (Wenger et al., 2009: 57). Participation has been described as the whole person being engaged in the process of 'taking part' including the person 'doing, talking, thinking, feeling and belonging' which suggests both action and connection with others. Reification is the process of giving a tangible form to experiences to produce 'points of focus' from which to negotiate and organise further meaning (Wenger, 1998: 58). This organisation of meaning leads to further participation from people resulting in the creation of meaningful experiences for learners (Wenger et al., 2002).

Wenger's (1998: 67) idea that an imbalance of participation and reification can produce an 'experience of meaninglessness' for community members which results in a lack of support for their learning, closely resonates with my research focus. The students involved in my research are encouraged to engage with each other through the asynchronous BBDBs. However, through my personal experience of teaching the modules, students seem reluctant to participate with each other through the BBDBs, and written conversation often fails to develop.

When reflecting about Wenger's (1998: 67) theory in relation to the situation in my setting, my concern was that by students not participating with each other and being mutually engaged, they could potentially be encountering an 'experience of meaninglessness' which was resulting in a lack of further participation from them. For

example, when engaging with the BBDBs, students seem happy to post an introductory comment, yet written conversation then either fails to develop or reduces over time. It could be the case that the duality of participation and reification (Wenger, 1998) decreases over time in relation to my students' online communication. I was also concerned that students may not be experiencing a 'sense of community' when communicating through the BBDBs. Sense of community has been defined as 'a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together' (McMillan and Chavis, 1986: 9). Sense of community occurs through interaction between people who are connected together by shared interests and goals (Westheimer and Kahne, 1993) and it is gaining recognition in online education research (Reilly et al., 2012). Importantly, experiencing a strong feeling of community can help students to persist with courses (Rovai, 2002).

By not participating with the BBDBs, students may not experience a sense of community or encounter meaningful experiences, which could lead to a lack of community development. Other studies have found a similar pattern regarding student engagement with online communities. For example, from an in-depth review of 23 studies about online teacher PD, Macià and García (2016) found that one of the major concerns regarding online communities is that over time there is a steady reduction of engagement by members, which can lead to an increase in member drop out. Wenger's (1998) theory, in particular his idea that a crucial element of community building is the negotiation of meaning between members, was a helpful analytical tool for examining the complexity of student participation with both online and face-to-face communication in my research.

Higher Education Institutions (HEIs) and the Drive towards E-Learning
In the first major review of Higher Education (HE) since the Robbins review in 1963, the National Committee of Inquiry Into Higher Education (NCIHE) (Dearing, 1997) was commissioned to make recommendations on how aspects of HE should develop to meet the needs of the United Kingdom (UK) over the next 20 years. The final report outlined 93 recommendations related to improving teaching and learning in HEIs. Five of these recommendations were specifically linked to the use of Communications and

Information Technology (C&IT). The final report proposed that there was potential for the use of C&IT to improve teaching and learning in HEIs which was, at that time, undiscovered. It suggested that the use of C&IT promised advantages in terms of the quality, flexibility and effectiveness of HEIs as well as providing scope for future cost reduction. Dearing (2007) later explained that the 1997 report was written with two facts in mind: student numbers had doubled over the preceding five years and also, on the basis of Government plans at the time the report was commissioned, resources in HEIs were going to be halved in the next 25 years. Dearing (2007) later reflected that the political context at the time provided a strong motive for the committee to make recommendations that would reduce costs for HEIs.

Advice for the Dearing report was taken from a few expert groups who suggested that technology developers should create systems that could be used by large numbers of students both in the UK and on a global basis (Dearing, 1997). John Daniel, who was the Vice Chancellor of the Open University (OU) at the time, had been part of the expert group. Course delivery at the OU had transformed since the advance in technology in the 1980s, and the expenditure per student was the lowest across all HEIs in the UK which was, in part, related to the OU's technology based teaching system (Daniel, 1996). Despite lowering costs of public expenditure, Simpson (2013) points out that one potential challenge related to distance education is student retention. He argues that feelings of isolation can lead to a reduction in student motivation, which can impact on student retention.

The recommendations outlined in the Dearing report (1997) (NCIHE, 1997) influenced practice changes in HEIs, driving the transition to online and blended learning courses, and many HEIs offer mixed mode delivery courses at PG level today. Later reports maintained that e-learning provides UK HEIs with viable opportunities to meet student demands for flexible learning which has the potential to reduce cost, if offered on a larger scale (Online Learning Task Force, 2011). In the years following the Dearing report (1997), the UK e-Universities initiative was set up by the Government in 2000 with the ambition of delivering HE programmes over the internet. This initiative was developed in response to the pressing need to support institutions struggling to innovate with C&IT and to grow UK HEIs into global businesses (Laurillard, 2008). This highly expensive,

large-scale project was terminated in 2004 after it had failed to meet its aims (Laurillard, 2008), and after it showed little promise of being able to recover its 'expensive high-tech costs' (Bach et al., 2006: 25). Laurillard (2008) argues this failure happened because the initiative had not considered lessons learned from the successes of HEIs who were already incorporating online methods, such as balancing the need to provide a robust delivery service with the demand for more innovative materials.

Informed by the failure of the UK e-Universities initiative and the Government's e-Strategy for the whole education sector, 'Harnessing Technology' (Laurillard, 2005) was published which proposed that a more flexible, research based strategy was required in HEIs for ICT teaching and learning. The Higher Education Funding Council for England (HEFCE) also published its ten year strategy for supporting e-learning in HE in 2005 (Beaty et al., 2005). This report included the promise of additional funding to support and embed e-learning in HEIs (Glenaffric Ltd, 2008). The strategy's highest priority was to enable institutions to meet the needs of their learners (Beaty et al., 2005) through supporting HEIs to set their own e-learning goals linked to their individual objectives, missions and positions. In consultation with the Joint Information Systems Committee (JISC) and the Higher Education Academy (HEA), the HEFCE report promised to support HEIs to set and then measure their own progress regarding embedding e-learning through providing tools for benchmarking their improvement against themselves and other institutions across the sector. As a consequence of such initiatives, HEIs began developing their own strategies for benchmarking their progress with regards to embedding e-learning practice. Interestingly, Bacsich (2010) argues that deep discussion regarding e-learning is preferable to measuring indicators in a superficial way through 'ticking boxes' when considering strategies for benchmarking progress in e-learning.

As previously discussed, my work setting created their own strategy for benchmarking progress in this regard through the creation of the 'VLE Baseline' which is an approach to providing a consistent student experience within University programmes (University A, 2019: 15). Given that University A states that the VLE Baseline requirements will evolve in response to feedback from, and discussions with students and staff, I hope my findings may contribute towards the future progress of these requirements.

Communities of Practice (CoPs)

The theoretical framework developed by Wenger (1998: 9) is a social theory of learning and as such, it 'considers learning in social terms' to encourage deeper reflection about the nature of learning. The theory puts learning in the context of human lived experience, and it reflects on how this lived experience affects the way we learn and the social order by which we live (Wenger, 1998). Underpinning Wenger's theory are four assumptions regarding what is important about learning when viewed through this lens, including the fact that we are social beings, we hold valued enterprises which help to define knowledge and competence (for example, singing in tune), we come to be knowledgeable through our active engagement in the world, and our learning is produced by our ability to experience engagement in the world as meaningful. These underpinning assumptions imply that learning and the social order by which we live are closely entwined, illustrating that the central focus of the theory is on learning as social participation.

Wenger (1998: 5) proposes that the four intertwined components necessary to characterise social participation as a process of learning include 'meaning' (our ability to experience the world as meaningful or 'learning as experience'), 'practice' (our ability to share resources and perspectives to sustain mutual engagement or 'learning as doing'), 'identity' (how learning shapes who we are within the community context or 'learning as becoming') and 'community' (the social configurations within which we belong or 'learning as belonging'). Whilst 'community' is an interconnected component of learning through social participation, Wenger (1998: 5) uses the term CoP as a broader conceptual framework as well as a constitutive element of that framework. He explains that the concept can both integrate the four components necessary to characterise social participation as a process of learning, whilst being a recognisable human experience. Wenger's ideas about viewing learning through the lens of social participation are pertinent to my research, in particular the underpinning component of 'community'. The CoP theory investigates the complexity of the elements required to support learning through the 'social engagement of the participants' in relation to effective community development (Cuddapah and Clayton, 2011: 64), which links closely to my research aims.

Potential Limitations of the CoP Theory

The following section critically discusses two potential limitations of Wenger's theory with regards to my research. The first limitation relates to the fact that Wenger's theory was developed from his ethnographic research with people who were physically together at the same time and in the same place. I raise questions about the usefulness of this theory when exploring e-learning communication with people who may not be together in these ways. The second limitation relates to my reflections about the fact that Wenger's theory focuses mostly on the external conditions of human learning, and I critically consider this issue in relation to the suitability of the theory as a tool to examine my research focus.

When reflecting on the CoP theory and my own experiences of face-to-face teaching, I understand how Wenger's theory might be applicable. For example, I have observed that when students regularly meet up to participate in meaningful activities with each other, often community building develops, and learning is enhanced. Indeed, other studies have shown that teachers' participation in face-to-face communities can support their PD (Sutherland et al., 2005). However, when reflecting on how the theory can be applied to the development of e-learning communities, I was personally challenged by Wenger's (1998: 53) ideas about meaning being negotiated through humans repeating continuous action (for example, chatting with colleagues) and the notion of 'give and take'.

Wenger's (1998) original theory was developed from his ethnographic fieldwork carried out in a large insurance company in the United States (US). His research focused on the daily life of medical claims processors, examining the way they interacted and learned from each other, as outlined in the paragraph below:

> 'Back to work. On an ambulance claim, Ariel does not see a diagnosis. She goes over to Nancy, who tells her to find one that would do in the patient's claim history. Just anything will do? Well, she is right, you've got to keep processing moving, keep the cost per claim down, but this is the kind of shortcut you never get in training. Without them, there is no way the job could be done. Ariel's face must have revealed her thoughts, because Nancy just reassures her with a friendly smirk: 'Welcome to claims processing!''
> (Wenger, 1998: 30)

The extract presented above illustrates that through being mutually engaged, these community members were developing a shared way of doing things (shared repertoire) to produce a collective response (joint enterprise) to a typical experience encountered in their job, which then became part of their practice. However, the claims processors were physically present together at the same time and in the same place. For example, Ariel was able to move over to Nancy to clarify the situation and gain advice to deepen her own understanding, and they both shared a meaningful experience about the nature of being a claims processor. By being together physically they were compelled to interact, be mutually engaged and collectively learn about the nuances of the job. Such examples help to illustrate Wenger's (1998) idea that CoPs are an organic phenomenon that develop naturally from people being together and trying to make sense of situations. However, because Wenger's theory was developed through studying people and situations in offline, synchronous circumstances, I have questioned how easily CoPs can develop when people are not together in space or time. If CoPs are described as groups of colleagues who deepen their expertise and knowledge through interacting with each other frequently (Wenger et al., 2002), how can such communities develop if students are geographically dispersed, and for whatever reason, they choose not to interact with each other frequently?

More recently, Wenger et al. (2009) have suggested that the use of technology has the capability to improve relationships established in communities. This notion is supported by Holmes's (2013) findings which suggested that online community groups offered an ongoing connectedness that face-to-face sessions did not offer. In spite of this evidence, my professional experiences have forced me to question how communities can be built in the first place if students do not participate with each other through the BBDBs. Nevertheless, a review of literature regarding e-learning communities as a source of teacher PD (Macià and García, 2016: 304) highlighted that whilst research in the area of teacher PD in online communities is still at 'a relatively early stage of development', Wenger's (1998) CoP model was one of the most popular theoretical frameworks used to study online PD communities for teachers. Furthermore, studies that used Wenger's theoretical framework were more useful and more robust, as the model fits well into a community structure (Macià and García, 2016). Taking these findings into account, I chose to evaluate my research through using aspects of Wenger's (1998) theoretical

model to help me develop a deeper understanding of the elements necessary for engagement in a community to take place.

Another potential limitation of Wenger's theory is that it does not elaborate about the internal learning condition of the individual. Wenger (1998) argues that individual learning takes place from engaging in the learning that occurs in CoPs, through the complex intertwining of action, feeling and meaningful activity between the individual and the world (Lave, 2009). The fact that Wenger's theoretical model focuses mainly on the process of external interaction between the environment and the learner could be viewed as a potential drawback as such theories may not capture the complexities of learning (Illeris, 2009). This idea initially made me question whether using Wenger's theory would allow me to fully explore the multifaceted nature of learning, as one of my broader aims was to enrich the students' learning through the notion of effective community development. However, whilst I am interested in the development of effective e-learning communities to enhance students' learning, my research does not seek to explore the internal learning that takes place inside the head of the learner. Lave (2009) makes the distinction between traditional cognitive theory which views learning as being an internal activity, and situated theories (such as Wenger's theory) which view learning as being part of the fluid 'processes of human activity' (Lave, 2009: 204).

Bruner (2009: 165) argues that a learning theory which is more 'outside-in' and considers the conditions needed for people to engage their minds, is more useful than a theory which is 'inside-out'. He explains that an 'inside-out' theory which does not consider the 'resources and settings' required for learning to take place is of limited applicability to education. Furthermore, the external conditions of learning are important elements to explore as they are intertwined with the process of learning, and if the interaction between these elements is not adequate for the learner then learning will be compromised (Illeris, 2009). Jarvis (2009) further argues that it is preferable for a learning theory to examine both the external condition and the internal condition of the individual. However, if the whole field of learning has not been fully covered (i.e. both internal and external learning conditions) then this must be made clear, and a realistic analysis of the learning situation must be presented (Illeris, 2009).

Reflecting on my research, I will be exploring the 'external factors' or the 'incentive dimension' of learning which support student engagement and learning to occur such as students' feelings and motivations towards the social and material aspects of the environment (Illeris, 2009: 12). It was not within the scope of my research to examine the internal condition or the 'cognitive' dimension (Illeris, 2009: 12) of the students' learning. Therefore, using a theory that focuses exclusively on the individual acquiring knowledge would not have been beneficial. For these reasons, Wenger's social learning theory was used as a theoretical model for framing my research, as it allowed me to examine the external factors which encourage or discourage students from engaging meaningfully with each other in both face-to-face and e-learning situations as a precondition to community development (Wenger, 1998).

Online Communities of Practice and Teacher Continuing Professional Development (CPD)

Online Teacher Continuing Professional Development (OTCPD)

Several studies have revealed that e-learning communities can be effectively developed, and participating in them can be a valuable way of enhancing teachers' PD in various ways (Chalmers and Keown, 2006, Wang and Lu, 2012, Holmes, 2013, Booth and Kellogg, 2015, Lantz-Andersson et al., 2018). For this reason, the following section focuses on literature which considers the strengths of e-learning communities to support teachers' PD.

Evidence has suggested that when teachers engage in online text-based discussion threads with colleagues it can be beneficial to them and support their pedagogical growth (Duncan-Howell, 2009, McPhee, 2015, Gasparič and Pečar, 2016). In one study, which analysed the content of discussion messages from three online teacher communities, Duncan-Howell (2009) claims that membership to a community had a positive impact on teachers' pedagogy. However, one potential limitation of this study is the fact that the sole method of data collection used was the analysis of discussion board messages, which may not have captured a deeper understanding of the overall experiences of the teachers involved. The study findings might have been strengthened if other qualitative methods had been incorporated into the data collection and analysis.

In a similar study (Holmes, 2013) which explored the influence of e-learning communities on teachers' competence development, teachers were required to collaborate online on short, non-formal learning opportunities (LO) on a particular topic supported by a tutor. Holmes (2013) claims that the e-learning community supported teachers' critical inquiry with peers, which enriched the development of their competence. However, one drawback of this study is that the authors do not clarify the number of teachers who reported an increase in their competence as a result of engaging in the e-learning community, nor do they make clear the number of teachers who were able to apply the knowledge they had gained.

Reflecting on the data collection methods used in Duncan-Howell's (2009) study compared with my research, I hoped to capture a more detailed picture of the complexities of community development through collecting qualitative data from more than one source (e.g. through qualitative interviews and focus groups). In a comparable study, Hou (2015) was able to capture and report a comprehensive description of the experiences of student teachers through gathering qualitative evidence from sources such as on-line discussions, focus groups and interviews with students and tutors. The detailed evidence gathered in this study allowed the author to examine how online communication supported teachers' professional growth, and it illustrated how teachers' learning can be enhanced through the encouragement and emotional support they receive from others online (Hou, 2015). From using similar data collection methods to Hou (2015) and triangulating data in this way, I hoped to gather sufficient data to investigate important features of the case (Bassey, 1999) to present rich, detailed findings.

From undertaking an ethnographic case study, Hou (2015) found that Chinese student teachers benefitted from engaging with each other online, and the presence of others helped to enhance their learning. This type of support has been shown to influence teachers to share resources and solve each other's problems (Tseng and Kuo, 2014) further supporting their PD. However, caution should perhaps be exercised when considering Hou's (2015) findings due to contextual and cultural differences regarding views of learning. The authors themselves admit that there was a revolutionary change in the development of the online community which involved the creation of more equal

student-teacher relationships that may have empowered student teachers and impacted on their actions. Some authors discuss the potential differences in the contextual factors that exist in different countries (Avalos, 2011), which might limit the scope of the research findings to the areas represented in such studies. Nonetheless, similar studies in England have identified that encouragement and emotional support from a community are important aspects of effective teacher PD (McIntyre et al., 2009). Furthermore, participating in an e-learning community can increase teachers' subject knowledge and skills of reflection (Wang and Lu, 2012) through engaging in critical enquiry with other teachers, which can potentially enhance teachers' competence (Holmes, 2013).

The literature highlights that there are clear benefits to e-learning communities as a way of enhancing teachers' PD (Duncan-Howell, 2009, Wang and Lu, 2012, Holmes, 2013, Hou, 2015, McPhee, 2015, Lantz-Andersson et al., 2018). However, one of the major issues relating to online teacher PD communities is the gradual lack of engagement that occurs over time, which often results in reduced participation and member drop out (Macià and García, 2016). Macià and García's (2016) findings concur with my observations that students often seem reluctant to participate on the BBDBs. As the programme involved in this research incorporates different blends of delivery at each phase, it was important to explore literature about blended learning communities, therefore the next section focuses on blended learning and community development.

Student Engagement Levels with Blended and Online Communities

Blended Communities of Practice

Blended learning has been described as 'the thoughtful integration of classroom face-to-face learning experiences with online learning experiences' (Garrison and Kanuka, 2004: 96). Previous studies have shown that students can experience greater increases in their learning from engaging with blended learning courses compared to students receiving solely face-to-face instruction (Ryan et al., 2016). Furthermore, blended learning courses can have beneficial effects for teachers' PD in terms of their teaching skills and professional knowledge (Matzat, 2013). There is also evidence to suggest that incorporating face-to-face days with online student interaction can support the development of effective online communities (Williams et al., 2007, Matzat, 2010, 2013,

Paskevicius and Bortolin, 2016, Trust and Horrocks, 2019), yet fewer studies have specifically explored how teachers participate and learn in blended CoPs (Trust and Horrocks, 2017).

The conceptual framework known as the Community of Inquiry (CoI) model developed by Garrison et al. (2000) is a useful framework for studying online and blended learning communities (Garrison and Kanuka, 2004, Macià and García, 2016) as the model identifies several underpinning elements for an effective HE experience when working in an online environment. Garrison et al. (2000) propose that a CoI is a community of educators and students who learn and experience meaning through the interaction of three core elements known as cognitive presence, social presence and teaching presence.

Cognitive presence is the term used to describe critical thinking in the sense that it is purposeful reflection by the individual, followed by communicative action to create shared understanding with others in the world. Social presence is the ability of participants in a CoI to project themselves as `real' people, through the online communication tool being used (Garrison et al., 2000: 94). Teaching presence or the presence of the teacher, binds together an educational CoI in an online environment. The quality of an educational experience can be enhanced or inhibited by how well these three elements are integrated and enacted (Garrison et al., 2000). It is therefore important to encourage all three elements to establish a collaborative community (Macià and García, 2016).

Garrison and Kanuka (2004) propose that the multiple forms of communication available in blended learning have the potential to facilitate an effective CoI. They insist that blended learning can add a particular reflective element to the learning experience of members, for example, through using both face-to-face discussion and asynchronous online discussion forums to discuss complex issues. According to Garrison and Kanuka (2004: 97) such blended communities provide the opportunity 'for free and open dialogue, critical debate, negotiation and agreement', which can support higher levels of learning. One potential drawback of this framework relates to the fact that if students are reluctant to participate in asynchronous written communication then the potential

for achieving higher levels of learning through online text-based discussion might be limited. Garrison et al. (2000) themselves suggest that cognitive presence depends on the extent to which communication is encouraged or restricted by the platform used. It would seem that the authors provide limited explanation with regards to how communication through different platforms can be encouraged or restricted which, it could be argued, is a potential limitation of their framework.

Social presence is a particularly important aspect of blended learning, which requires members to develop the ability 'to project themselves socially and emotionally' through whatever platform is being used (Garrison et al., 2000: 94). However, it has recently been suggested that one of the key challenges regarding the online aspect of blended learning is stimulating interaction between students (Boelens et al., 2017). For example, Youde (2020a) found there to be low levels of online peer-to-peer interaction in a blended learning course, and course tutors found it difficult to foster student engagement. If students are reluctant to engage with certain online platforms, the question remains as to whether the three fundamental and interrelated strands of the CoI model can develop in the first place to support higher levels of learning in a community. It would seem that student engagement with different learning platforms is fundamental to theories which discuss effective learning communities such as Wenger's (1998) and Garrison et al.'s (2000) theories, and it is therefore crucially important to explore what drives teachers to engage or not with online platforms.

Other research reveals that teachers do engage with online platforms, and they are able to move seamlessly through face-to-face and online experiences which can support their development as professionals (Trust and Horrocks, 2017). However, in Trust and Horrocks' (2017) study, teachers communicated online through multiple informal social networking sites rather than moving seamlessly through formal platforms such as BB, which is different to the circumstances the students in my research are initially faced with. For example, students on the course involved in my research are encouraged to engage with and move between face-to-face sessions and the formal online BB area. Evidence from Trust and Horrocks' (2017) research might suggest that teachers are more likely to engage with informal online platforms rather than formal online platforms such as BB, and this issue will be discussed in greater detail later in this chapter.

Engagement with different online platforms is clearly an important component of the development of effective e-learning communities. It would seem that more research is needed with regards to stimulating social interaction in blended learning courses (Boelens et al, 2017), and in relation to community building for the future development of online teacher professional development (OTPD) (Dede et al., 2009). In a literature review which concentrated on the strengths and limitations of OTPD and the types of knowledge lacking in the current literature, Dede et al. (2009) identified several key areas in need of research. These areas included the suggestion of utilising the unique data collection methods offered in online programmes by creating new research questions about issues of online collaboration, communication, and community. To better understand these issues, and to enable me to recognise the factors that encourage or discourage teachers from engaging in e-learning communities, the next section explores literature which discusses the factors that impact on students' preference for, and engagement with, both face-to-face and online platforms.

Potential Factors that Impact on Students' Preferences for, and Engagement with, Different Modes of Learning

Several studies have revealed that the size of online groups can affect teachers' engagement levels with online groups (Chalmers and Keown, 2006, Booth and Kellogg, 2015). In their study, Chalmers and Keown (2006) found that powerful learning occurred when teachers used an academic platform similar to BB to work in a collegial way to form online communities. However, the authors observed that when online community groups were larger, (i.e. 28 students per tutor) the course completion rate was much lower. They claim that there were difficulties with keeping everyone involved in the larger community groups, although the reasons for this are not explained in any detail in the study.

Some studies have found that when teachers engage in small community groups it can help them to form trusting relationships with each other which can support them to interact and learn together online (Booth and Kellogg, 2015). Trust issues between members can be a potential barrier for online communities in achieving their full potential (Matzat, 2010, 2013). Through using Wenger, Trayner and de Laat's (2011) value creation framework to investigate the value of e-learning communities, Booth and

Kellogg (2015) found that participating in small community groups supported members to develop new forms of understanding at both the individual and group level which were then applied to members' professional practice. Interestingly, the authors acknowledge that the development of the successful e-learning community was, in part, due to the small group work being carried out in face-to-face sessions first. In comparison, from undertaking questionnaires with participants from thirty-three online communities, Matzat (2013) found that community group size did not affect the benefits that teachers received from using the community with regards to their teaching skills and their professional knowledge.

Both of these studies might indicate that more research is needed in terms of appropriateness of group size and tutor-student ratio in relation to student engagement with online communities. Booth and Kellogg's (2015) study findings could also indicate that allowing group members to work in a face-to-face way can build trust between members, which can then impact on teachers' engagement with online forums and strengthen the online community. Other studies concur with the idea that incorporating face-to-face days with online student interaction can support trust building between members which helps the development of effective online or blended communities (Williams et al., 2007, Paskevicius and Bortolin, 2016, Trust and Horrocks, 2019). This could be an important matter in relation to my own context where teachers are provided with different blends of face-to-face and e-learning in each programme phase.

Some authors (Palloff and Pratt, 2011, Paskevicius and Bortolin, 2016) have argued that learning communities can be more easily fostered through using blended delivery models that begin with face-to-face sessions. Paskevicius and Bortolin (2016) identified that community development was strengthened by deliberately focusing on building a strong sense of community in the first two consecutive face-to-face sessions. In their mixed method study, the authors explored whether a learning community could be established and sustained for a faculty development programme by using a blended learning model over a nine-month period. Data gathered through three qualitative surveys spaced evenly throughout the course showed that providing regular opportunities for students to meet face-to-face, combined with online activities, supported the development of the community. However, whilst the online activities

were designed to complement learning and discussion in face-to-face sessions, the online tasks were compulsory for students in this study.

The issue of whether engagement in e-learning communication is compulsory or optional is another factor that could potentially impact on student engagement levels in e-learning communities. Some studies suggest that online communities are more likely to develop when e-learning activities are compulsory (rather than optional) (Teles and Coutinho, 2011, Wang and Lu, 2012). Teles and Coutinho (2011) argue that the combination of online and face-to-face work led to the success of their blended teacher PD programme. However, the online activities in the PD programme represented 50% of the final grade which was higher than the 30% grade portion attributed to the face-to-face activities, which raises questions about the motives of the teachers engaging in this particular e-learning community. One question that needs to be asked is whether the online community would have been as successful if engagement with the online forum were not part of the assessed task. Having some choice regarding whether to engage or not with online platforms could impact on community development as teachers may be less likely to engage with an online forum if the requirement to do so is not part of an assessed task, which raises questions about the authenticity of the community.

In relation to this point, Meijs et al. (2016) identified that a significant aspect raised by teachers was their strong desire to have choice and autonomy in their learning. In a study exploring teachers' perceptions of learning from others as an approach to supporting their PD, Meijs et al.(2016) conclude that autonomy is a key aspect of social learning which includes people making their own decisions about whether or not to participate, as well as choosing when and how they meet with others. It could be deduced from these findings that having some choice or autonomy is an important factor in terms of teachers' engagement with online learning platforms.

In connection with this issue, Thang et al. (2011) found that where teachers were invited (rather than expected) to collaborate in online communities, there were lower levels of participation. Their findings highlighted that the low level of authentic teacher participation in online communities was related to low levels of trust, performance

anxiety, time pressure and failure to see the relevance of online interaction in relation to teachers' needs. Similarly, from a close inspection of the activities developed to investigate the potential of online teacher communities in Cyprus, Karagiorgi and Lymbouridou's (2009) study found that a teacher e-learning community failed to develop as a result of a lack of informal communication, information-sharing and trust between members. The authors suggest the lack of online community development was, in part, due to teachers' lack of interest in the topic of discussion threads and teachers not feeling the need to share their professional experiences with others.

Interestingly, other studies have shown that when teachers are given the option to voluntarily collaborate with others in an online community, rather than being obliged to by course requirements, the most common form of collaboration is for sharing materials (Seo and Han, 2013) rather than interacting with each other in meaningful discussions. In their study, Seo and Han (2013) found that a small minority of teachers shared resources that were then used by the majority of the group but without any major feedback or discussion with others, which suggests their engagement with each other online was minimal. Nevertheless, these findings support the notion that teachers will voluntarily participate in an online community to share resources. Other studies have also found that teachers report finding e-learning particularly useful for sharing resources and information with others (McConnell et al., 2013), as well as being a more convenient way of communicating with others as no travel is necessary.

It is important to note that not all the studies evaluated in this review clarify whether online communities are voluntary or compulsory which makes it problematic to understand the authenticity of such communities. This issue is particularly pertinent to the context of my research, as there is no compulsory element for teachers to engage with the BBDBs which, according to some of the studies discussed in this review, may impact on teacher engagement, and the extent to which e-learning communities are developed and sustained.

Studies which have focused specifically on teacher engagement with asynchronous online forums (Baek and Schwen, 2006, Jarosewich et al., 2010) have reported several other reasons for teachers' lack of engagement with such forums and for the low quality

discussion posts observed between teachers in those forums. In Baek and Schwen's (2006) study, teachers did not engage with the online forum, which was designed to support their PD, due to a lack of technical support, preferences for face-to-face interaction and issues of time, and as a result the community failed to develop. Similarly, other studies have shown that lack of time is a considerable issue for students (Oliphant and Branch-Mueller, 2016), and teachers report online forums to be time consuming which impacts on their engagement with them (Baran and Cagiltay, 2010). Time could be a considerable issue for the teachers involved in my research, who are all busy professionals.

Other studies have shown that students report negative aspects of blended learning to be related to inadequate online discussion forums and problems experienced with technology (Atkins et al., 2016). Atkins et al. (2016) carried out a small-scale study with 118 students participating with five blended learning courses related to global health research at institutions from Africa, Asia, and Europe. The author surmises that the negative issues reported were possibly due to the students' level of familiarity with the internet and their overall level of computer skills. However, the study findings relied solely on quantitative methods through using a student survey with closed-ended questions which might not have captured the students' perceptions of the technology in any depth. Nonetheless, other studies have also shown computer skills to be of particular concern for some primary and secondary school teachers participating in online PD, including reading and posting comments on a threaded discussion (Reeves and Zhushan, 2012) which could affect their engagement levels.

As well as reports of issues with computer skills and time, other studies highlight that teachers have mixed beliefs about the effectiveness of online collaborative learning over face-to-face learning (Nicholas and Ng, 2009). Teachers often explicitly report a preference for face-to-face interaction over online interaction (Baek and Schwen, 2006, McConnell et al., 2013) which could potentially impact on their engagement levels with e-learning. For example, in McConnell et al.'s (2013) comparative case study, teachers expressed a preference for face-to-face interaction even though they had enjoyed interacting as a community group through the sole use of videoconferencing. This reported preference was in part, related to the transmission lag experienced when

communicating through videoconferencing which was a reported barrier to open discussion (McConnell et al., 2013). Teachers' partiality for face-to-face interaction was also related to the fact that there was more time for informal interaction in the group meetings, a finding which indicates that teachers perceive (and enjoy) a greater social element through meeting up together in a physical way.

However, in McConnell et al.'s (2013) study, the e-learning community developed through the use of synchronous videoconferencing rather than an asynchronous online written forum, which makes it difficult to make comparisons between these two different electronic forms of communication due to the varying complexities of engaging with each platform. In McConnell et al.'s (2013) research, teachers were happy to communicate through videoconferencing, whereas in other studies which specifically explore asynchronous online text-based interaction, teachers have reported they find it to be more stressful than face-to-face interaction. For instance, Lukman and Krajnc (2012: 245) found that some teachers reported collaboration via online forums to be more stressful due to the lack of face-to-face interaction between students and tutors which they suggest can provoke 'negative feelings' for students, making it difficult for them to function in virtual worlds.

Some studies suggest that teachers are more likely to engage with asynchronous online text-based forums if the topic is highly relevant to their practice (Unwin, 2015). Unwin (2015: 1214) found that teachers engaged more often with online forums when the discussions were firmly grounded in teachers' situated experiences. In Unwin's study, teachers engaged with discussion threads that were specifically designed to reflect their interests, and these discussions supported them to 'understand the complexities, dilemmas and strategies within their own and others' professional practice'. This finding concurs with the thoughts of Garrison and Kanuka (2004: 99) who insist that when asynchronous communication tools are used, they can provide students with a platform to 'confront questionable ideas and faulty thinking in more objective and reflective ways than might be possible in a face-to-face context'. They explain that the reduction in distractions from a face-to-face situation (such as noise) means there is an increased focus on the substantive issues. However, careful pedagogic design seems to be

required for teachers to engage with online text-based forums in the first place, in order for them to obtain appropriate gains from online forums (Unwin, 2015).

Garrison and Kanuka (2004) further argue that there are other advantages of asynchronous, text-based communication, such as the fact that discussions tend to be more thoughtful in nature and more likely to be supported by evidence as well as providing a permanent record of the discussion. In contrast, other authors discuss how one potential challenge regarding engagement with online text-based communication is that it requires communication to be through the written rather than the spoken word (Teles and Coutinho, 2011) which often provides a permanent record of that communication. The lasting nature of such communication can make students feel more wary of what they commit to writing and therefore it can take them more time to respond (Conrad, 2002). Students can feel pressured to post written online comments, which can induce negative feelings of anxiety about the permanent nature of those often public posts (Reilly et al., 2012). Negative emotions have been identified as a contributing factor which can impact on students' inclination to engage with e-learning. In an online course, Reilly et al. (2012) found that nursing students experienced negative feelings associated with e-learning such as being scared to make mistakes due to their inexperience with e-learning. Other reported sentiments were feeling invisible, isolated and alone, with a lack of connection to others which impacted on the sense of community these students felt through asynchronous discussions.

Some authors propose that online text-based interaction might result in interpersonal warmth being harder to convey and therefore more likely to be lost (Thang et al., 2011) which could influence teachers' engagement with e-learning communication. Thang et al. (2011) questioned whether the nature of online text-based interaction affects the process of social bonding which could potentially negatively impact on community development. Conrad (2002: 214) has further argued that educators are less able to convey a 'deep sense of humanness' when communicating through text, and they are also less able to understand the reasons for potential non-engagement through the lack of tangible clues that are more easily available during face-to-face teaching. One potential way to overcome difficulties in conveying interpersonal warmth to students is through using technology that allows tutors to digitally record their communication and

feedback to students (Kennedy and Gray, 2016). Kennedy and Gray (2016) found that online doctoral students enjoyed receiving tutor feedback via screen cast and they reported that this type of immediate communication strengthened connections with their tutors that had been more difficult to make through using online written communication. Furthermore, the students reported that online written communication was sometimes viewed as a barrier to making connections with others.

Other evidence suggests that different types of technology can help students to feel more connected with others when engaging in asynchronous communication (Delmas, 2017). For example, Delmas (2017: 595) surveyed 39 students who were either engaging with a fully online master's program or a blended doctoral program and found that students reported that the use of the web-based platform 'VoiceThread' positively contributed to the development of an online community. From data collected through an online survey which included both Likert-type scale questions and open-ended questions, students explained that the tool's ability to add voice to online activities resulted in them feeling more connected to both their peers and their tutor through making them seem more human and more 'real'. In a similar way, synchronous tools supporting voice communication (such as Skype) can add a personal touch to the process of communication and can be an important factor in enhancing group collaboration (Franceschi et al., 2001 cited in Lukman and Krajnc, 2012). Some students in Delmas's (2017) study reported that the tool helped them to develop more positive relationships with their fellow students through allowing them to get to know them better, whilst others reported that the asynchronous nature of the tool and the lack of face-to-face interaction were barriers to them getting to know each other better. The findings from these studies might suggest that technology which permits students to hear or see each other allows the expression of a human element that is more difficult to convey through online text-based discussion, which can encourage social bonding in the context of either synchronous or asynchronous communication.

More recently, researchers have found that the use of social media platforms can produce an increase in student engagement in informal professional learning activities

(Ranieri et al., 2012, Davis, 2015, Kabilan, 2016, Carpenter and Green, 2017).[3] For example, in the US, Carpenter and Green (2017: 54) examined how a mobile instant messaging tool known as Voxer could support educators' professional learning. Voxer is described as an internet based 'multimodal tool' that allows users to exchange messages with other users through a variety of mobile devices such as apps, web browsers or desktop computers. In addition to allowing communication through written text, Voxer allows users to communicate through audio messages, images, emotions and video. Through implementing an online survey which gleaned both quantitative and qualitative data, Carpenter and Green (2017) found that educators used the voice and text features of the tool the most. The main reasons users engaged with Voxer was to collaborate with others, to share resources and ideas, to expand their professional network and for the emotional support they received from others. Approximately one third of participants reported that their engagement had increased as a result of using Voxer, and this was due to Voxer allowing students to connect more easily with each other in their own settings and beyond. Voxer was also worthwhile in the sense that it allowed educators to self-direct their own learning in line with their own needs and interests rather than their learning being determined by external bodies. Carpenter and Green (2017) conclude that opportunities for informal learning and professional activity through social media platforms should be more highly valued.

A number of studies have found that teachers often choose to use Facebook to create informal community groups which are outside of their college courses. Ranieri et al. (2012) conducted two large surveys with teachers from five Facebook groups in Italy and reported that the group founders had chosen to use Facebook due to the platform allowing speed in terms of sharing resources and communicating with others. Members reported joining the group to share their ideas and projects, to give visibility to their work and to feel less alone through experiencing a sense of belonging. These findings link to a raft of recent studies which suggest that online social platforms such as Facebook and Twitter are valued by teachers (Davis, 2015, Kabilan, 2016) as useful ways

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[3] A recent report by Ofcom (2020) shows that the use of Facebook messenger, WhatsApp and video calling has increased dramatically during the coronavirus pandemic. For example, adult online consumers' use of video calling increased from 35% in 2019 to 71% in May 2020. These findings indicate that adults' use of online platforms has been changed as a direct result of the coronavirus pandemic.

of improving learning (Wesely, 2013, Kamalodeen and Jameson-Charles, 2016) and supporting their PD (Carpenter and Krutka, 2015, Bett and Makewa, 2020).

The development of social media platforms have the potential to shape learning communities in e-learning courses in HE, through allowing dispersed learners to develop connections by adding extra points of connections to the formal learning environments already available to them (Callaghan and Fribbance, 2016). In a study which compared Facebook based online discussion with a University Learning system (ULS) based online discussion, Camus et al. (2016) found that students in the Facebook group posted and responded to comments more often than students in the ULS group even when instructor comments were kept similar in both groups. Comments made by members in the Facebook group were judged as more novel and reflected discussions about extracurricular topics which never happened in the ULS group. In comparison, students in the ULS group were 'more likely to respond directly to the instructor's posts' (Camus et al., 2016: 88) as well as posting comments that were more closely related to the assessment task. The authors argue that these two differing forums could be viewed as having different 'rules' where the ULS was viewed solely as an academic environment whereas the Facebook forum was viewed as a 'less formal, more social environment' (2016: 91).

Some theorists suggest that students are keener to engage with social media platforms because they have a degree of control over them, and because they find digital media fast and fluid in comparison to enclosed systems such as BB which limit activities that can be initiated by students (Williams, 2013). Course management systems such as BB are also different to social media platforms (SMPs) in the way that SMPs offer 'more democratic, student centred participation' (Williams, 2013: 180). Camus et al.'s (2016) study findings support the thoughts of Williams (2013) as the students in their study engaged with Facebook much more than the University based platforms. The authors suggest this was due to Facebook communication being more like face-to-face communication because of the notification feature which allows students to initiate conversation and respond to others more quickly, as well as being related to students' familiarity with Facebook (Camus et al., 2016). From their literature review, Macià and

García (2016: 305) conclude that 'Further studies are required to identify the factors that encourage online participation in informal networks and communities'.

It could be argued that formal online text-based communication through BB, and informal online text-based communication through social media platforms are, for some students, viewed as different literacy practices. For example, the BB area is predominantly an instructor regulated platform which is designed for most activities to take place in the form of print (Williams, 2013). In contrast, more advanced digital media such as Facebook, allow users to communicate in a less regulated way through using images and sounds as well as through text-based communication (Williams, 2013). Therefore, the next section explores how online communication can be conceptualised as a social literacy practice through examining theory which views literacy as a social practice. It also discusses the Literacies for Learning in Further Education (LfLFE) framework (Ivanič et al., 2009), which was used as a tool to further analyse the findings of this research.

The Literacies for Learning in Further Education Framework

The literacy as a social practice approach conceptualises literacy through taking account of people's everyday practices. This approach challenges the dominant view that literacy is a neutral, technical skill which is separate from the social context (Street, 1995). Instead, literacy is conceived as being embedded in cultural meanings and practices, and reading and writing are viewed as being located in the social practices that give them meaning (Street, 1995). For example, in a three year ethnographic study which explored how people use literacy in their day-to-day lives in a local community in England, Barton and Hamilton (1998) discovered that literacy was viewed as a communal resource. They found that people engaged with social literacy practices to make sense of life events, such as health issues, jobs, and education.

Literacy practices have been defined as 'particular ways of thinking about and doing reading and writing in cultural contexts' (Street, 2003: 79). Satchwell et al. (2013: 42) further define literacy practices as being social practices where 'people make meaning and accomplish social goals through reading and/or writing' which look beyond the text, taking into account what people do with the literacy practice. The approach

conceptualises literacy as a process that is embedded in social practice, which is constantly changing in terms of material forms, for example, from print on paper to text-based communication on digital screens. Importantly, the literacy practices that people engage with have significantly changed over the last few years due to the integration of new technologies and online activity into their everyday lives (Barton and Hamilton, 2012). Barton and Hamilton (2012) explain that the online world is extensively mediated by literacy.

It could be proposed that online communication between people can be characterised as a complex social engagement with a specific form of literacy. To further explore this notion, I conceptualised online communication as a literacy practice embedded within the social practice of the given educational context (Street, 2003) within this research. Notably, I used the Literacies for Learning in Further Education (LfLFE) framework (Ivanič et al., 2009), which was guided by a social view of literacy, to make sense of my findings in a more holistic way. The LfLFE project (Ivanič et al., 2009) was part of the first major study of literacy practices in colleges in England, Scotland and Wales, which explored the literacy practices that students engage with in their day-to-day lives. The authors discovered that college students engage with a wide range of literacy practices in their everyday lives, which spring from students' own personal interests and pursuits. They also identified that literacy practices are made up of several aspects which can be configured in a number of ways to increase engagement with the practice.

The original LfLFE project involved college students (aged 16-19 years) in further education settings, which contrasts in many ways with the students involved in my research. As previously discussed, the students in my research were full time, experienced primary school teachers who had completed degrees and achieved qualified teacher status. Furthermore, they were interested in advancing their PD by undertaking masters level study to explore ways to improve their practice and share it effectively across school. Additionally, over half of the students involved held additional responsibilities and senior roles in school.

Importantly, the LfLFE research was underpinned by the fundamental principle that communication (including literacy) is integral to learning and teaching, and is not a

specific set of skills to be learnt alone. Therefore, it could be argued that the LfLFE framework offers educators in different educational settings a worthwhile way of examining the communicative aspects of their pedagogy and practice. In this way, it offers educators a way of understanding, describing and comparing literacy practices in their own work. As such, I took the opportunity to apply the LfLFE framework in a different context to explore the literacy practices of the students in a blended online course, which had the potential to add to the usefulness of the framework.

In light of the fact that I conceptualised online communication as a social literacy practice, and given that the LfLFE framework provides a way of examining literacy practices in fine detail, the LfLFE framework was an appropriate tool to apply to my research to closely inspect how the students experienced the practices of online and face-to-face communication. The LfLFE framework allowed me to examine my findings in a more holistic way, providing a strong starting point for considering how to make small practice changes to increase online engagement. Further detail and discussion about the LfLFE framework is provided on page 154.

Interestingly, Satchwell et al. (2013: 47) argue that students need to have a positive relationship with the literacy practice in question to engage with it in a meaningful way. In their study, they observed that when students were given a choice with technology within the tasks they were assigned, they described a deeper engagement with the task as they 'valued and identified more with the practice itself'. Carpenter and Green's (2017) findings would appear to support this as they found an increase in student engagement with a specific online platform that offered students choice in terms of where they engaged with it (i.e. through a variety of mobile devices) and choice in terms of communication methods (i.e. written text, audio messages, video). The fact that the tool allowed students to self-direct their own learning further encouraged them to engage with it. Such findings might suggest that giving students some choice in a literacy practice involving different types of online communication is a key aspect of supporting them to identify with, value and participate with the practice.

Conversely, if the relationship between the literacy practice and the individual is seemingly negative then engagement with the practice might be compromised

(Satchwell et al., 2013). Furthermore, research highlights that when students develop negative relationships with technology, they can experience strong negative emotional reactions such as stress and anxiety (Lukman and Krajnc, 2012, Reilly et al., 2012) which can further impact on their engagement levels. The area of emotions and the role they play in relation to teachers' engagement with online communication seems to be explored less in the literature than other factors noted in this review. Other literature reviews also suggest there is a dearth of literature which examines the emotional aspects of students' engagement with online platforms and communities (Hughes et al., 2007, Lantz-Andersson et al., 2018). Therefore, the next section considers literature which discusses the role that emotions play in relation to students' preferences for, and engagement with different types of online technology.

The Role of Emotions

The emotional response of students has been highlighted as a factor that can impact on teacher engagement with online communication (Hughes et al., 2007, Guldberg and MacKness, 2009, Reilly et al., 2012). Several studies have shown that students can experience a range of emotions, both positive and negative, when engaging with online learning (Conrad, 2002, Zembylas et al., 2008, Reilly et al., 2012). Through using 'emotion diaries' to capture the emotional experiences of learners engaging with an online distance learning programme at the OU of Cyprus, Zembylas et al. (2008) identified that students experienced both positive emotions such as excitement, and negative emotions such as stress which were related to their feelings of isolation and loneliness. However, in this study all the learners were new to online learning which could, in part, account for the negative emotions experienced by the students. The authors themselves conclude that there is a lot to be gained from considering the role of emotions as students learn how to become online learners. Nevertheless, other studies have found that stress and anxiety can be part of the range of feelings experienced when students engage with online learning (Reilly et al., 2012) as well as feelings of isolation (Callaghan and Fribbance, 2016).

Research that focuses specifically on affective factors in online learning is more scarce than literature which explores aspects of cognition in face-to-face courses compared with e-learning (Reilly et al., 2012). Furthermore, a recent literature review regarding

online teacher communities (Lantz-Andersson et al, 2018: 312) indicates there is a dearth of literature which adequately explores 'the emotional and affective characteristics of online professional learning communities'. Whilst the role of emotions has been examined in some literature (Zembylas et al., 2008, Reilly et al., 2012, Kennedy and Gray, 2016), in comparison less research has focused specifically on examining the impact of negative emotions on students' engagement with online communication. Kennedy and Gray (2016) argue that it is crucial to understand learners' feelings to create responsive teaching techniques in the e-learning environment. They suggest that educators should attempt to search for, and critically reflect upon, students' emotional responses to try and intercept those affective states before they are perceived as negative.

It could be proposed that emotional reactions which are perceived as negative have the potential to discourage students from engaging with each other online, and this issue could contribute to the extent to which e-learning communities develop. Developing an increased understanding of the range of emotions that students experience during the social aspects of online engagement is crucial for increasing understanding of 'students' experiences of working collaboratively online' (Hilliard et al., 2019: 3). Greater attention is therefore required regarding the role of emotions (Lantz-Andersson et al., 2018), particularly in relation to asynchronous online learning (Reilly et al., 2012). Indeed, the emotional response of students was a finding that emerged from my research; therefore this issue has been deliberated briefly at this point and it will be discussed again in more detail later in the thesis.

Conceptual Map of Literature

From closer examination of the theoretical elements discussed in the literature review I created a conceptual map of the literature to explore the relationships between concepts discussed in the literature review (Figure 1).

Themes related to social participation

Themes related to technology

Social Participation
Community building involves members being mutually engaged and constructing their experiences of the world as meaningful (Wenger, 2002). 'Meaning' is negotiated through the interaction of 'participation' and 'reification' (Wenger, 1998: 56) which is fundamental to the concept of communities of practice (Wenger, 2009).

Presence of Others
Chinese student teachers benefitted from the chance to engage with each other online, and it seemed the presence of others helped to enhance their learning through the through the encouragement and emotional support they received from others online (Hou, 2015).

Compulsory Element
Whether online interaction with other teachers is compulsory or voluntary can impact on teachers' engagement in e-learning communities (Teles and Coutinho, 2011).

Social Media Platforms
Students engaged more with Facebook than with a University Based Learning System in a comparison study by Callaghan and Fribbance (2016).

Time
Teachers reported online forums to be time consuming which impacted on their engagement with them (Baran and Cagiltay, 2010).

Agency
Teachers reported a strong desire to have choice and autonomy in their learning (Meijs et al, 2016) including making their own decisions about their participation with online platforms.

Engagement with Learning Platforms

Connectedness
Studies have suggested that participating in an online community is an effective way of enhancing teachers' PD, (Wang & Lu, 2012, Chalmers and Keown, 2006) that can offer teachers an ongoing connectedness that face-to-face sessions cannot offer (Holmes, 2013).

Computer Skills
Computer skills are of concern for some students (Reeves and Zhushan, 2012) including reading and posting comments on a threaded discussion (Atkins et al, 2016).

Relevance of Task
Teachers are more likely to engage with asynchronous online text-based forums if the topic is highly relevant to their practice (Unwin, 2015).

Group Size
The size of online groups can affect teachers' engagement levels with online groups (Chalmers and Keown, 2006, Booth and Kellogg, 2015).

Relationships
Teachers found online CoP to be useful, but it took time to develop trust between teachers (Holmes, 2013). Trust issues between members can be a potential barrier for online communities in achieving their full potential (Matzat, 2010, 2013).

Emotions and Feelings
Collaboration via online forums is reported to be more stressful due to the lack of face-to-face interaction between students and tutors which Lukman and Krajnc (2012: 245) suggest can 'consume energy and provoke negative feelings' for students, making it difficult for them to function within virtual worlds.

Figure 1: Engagement with Learning Platforms as a Conceptual Map of Literature

The literature map aided my conceptual understanding of the major issues illustrated in the literature review which related to my research focus. All the themes in the map were highlighted in the literature with regards to student engagement with different learning platforms, therefore they have been included in this diagram. The literature map illustrates six key interactive elements (highlighted in blue) that seem to be interdependent, and which seem to impact on students' preferences for, and engagement levels with online and face-to-face learning platforms in various ways. For example, the theme entitled 'Social Participation' is closely linked to 'Presence of Others' and 'Connectedness' which are both conceptually linked with 'Emotions and Feelings'. To exemplify, some of the theory underpinning the 'Presence of Others' theme revealed that teachers benefitted from having the presence of others online through the emotional support they received from others (Hou, 2015) which is closely associated with the theme 'Emotions and Feelings'. Similarly, the theme 'Emotions and Feelings' is underpinned by theory which showed that a perceived lack of communication with others online can result in teachers experiencing negative emotions (Lukman and Krajnc, 2012), a finding which directly relates to the themes 'Connectedness' and 'Relationships'.

The strands in the centre of diagram (highlighted in red) seem to be more specifically related to issues of technology although they also interact with the six key elements (highlighted in blue). For example, the theme 'Computer Skills' which have been shown to be a concern for some students (Reeves and Zhushan, 2012) could also link to 'Emotions and Feelings' as teachers who are concerned about their computer skills are more likely to feel anxious and stressed. Other studies suggest that teachers' participation in e-learning communities is reduced when teachers perceive that there is a lack of technological support for their computer skills (Baek and Schwen, 2006) which could suggest that the theme 'Computer Skills' is also related to the two key themes of 'Social Participation' and 'Connectedness'.

The map of literature demonstrates that student engagement with online and face-to-face learning platforms is complex and there are important elements that interact with each other to impact on student engagement. The literature map draws further attention to the importance of emotions and feelings, highlighting that they are an

integral part of students' participation with different learning platforms. The conceptual map of literature helped to inform and support the choices I made regarding the research methods used to gather data. For example, I reflected that the key themes derived from theoretical perspectives (presented in the literature map) would be found in both online and face-to-face learning situations where teachers engage with blended learning. To further explore teacher engagement with different learning platforms, data and evidence of this nature would potentially be in the voices of those teachers engaging with blended learning courses. Thus, the literature map guided me to employ qualitative methods which would permit me to explore the perceptions of the teachers to help me to answer my research questions. My research questions are outlined below.

My main research question was:

What affects engagement in an educational online community?

Four subsidiary research questions were developed to address the main research question:

What are the factors that affect students' and tutors' preferences for online and face-to-face learning?
What are the factors that contribute to active engagement in an e-learning community?
What are the factors that discourage active engagement in an e-learning community?
How can tutors best support the development of an e-learning community?

Summary and Gap in Literature
Through my engagement with literature, I have examined the strengths and limitations of online CPD for teachers, as well as inspecting the potential factors which can impact on teachers' preferences for, and engagement with, online and face-to-face learning, to better understand the development of e-learning communities. A clear rationale for drawing from aspects of Wenger's (1998) CoP theory as a theoretical basis for this thesis has been presented.

To comprehend the reasons why students choose to participate or not with each other through face-to-face and e-learning platforms, I needed to try to understand their perceptions, in particular their 'emotional responses' (Kennedy and Gray, 2016: 427) as the role of emotion in online learning is an important lens through which to explore the 'hidden factors' that explain some of the reasons why online collaborative learning either fails or succeeds (Du et al., 2016: 955). Furthermore, there is a dearth of research that focuses on the role of emotions with regards to students' engagement with online professional learning communities (Reilly et al., 2012, Lantz-Andersson et al., 2018). Therefore, these findings might contribute to the growing discourse on the topic of the role of emotions in online communication, as well as informing the development of my future practice as a tutor.

Other studies in this review which used qualitative methods such as focus groups and interviews were able to capture, examine and present detailed descriptions of the experiences of teachers who were engaging with online communication (Hou, 2015). In a similar way I hoped to capture a comprehensive representation of the complexities of online community development through collecting qualitative data from more than one source. Thus, I involved the students and tutors in this case study, valuing their experiences and inviting them to share their perceptions through using qualitative methods to answer the main research questions. Creating a conceptual map of literature and drawing on Wenger's ideas provided me with a theoretical basis from which to critically explore engagement with online communities.

CHAPTER 3: METHODOLOGY

Introduction

In the following chapter my epistemological and ontological positions are discussed, and my research approach is described and justified through consideration of theoretical perspectives. Thought is also given to the potential limitations of this approach. Data collection methods are described in detail, and I discuss the issue of trustworthiness in qualitative research and the steps I took to increase the integrity of my research. The section concludes with an outline of the ethical framework which underpinned this research.

Ontology, Epistemology and Research Approach

When considering which research approach to take, I contemplated the question, 'What is it that I want to discover?' and 'How will I answer my research questions?' Given that ontology should be the starting point for all research (Grix, 2010), I reflected on my main research question 'What affects engagement in an educational online community?' and used it as a tool to examine my own ontological stance (Trafford and Leshem, 2008), which then informed my chosen research paradigm and research approach. Reflecting deeply on my research question led me to examine my underpinning assumptions regarding how I view the world. For example, the question is open ended in nature, and therefore potentially carries with it an assumption that there is more than one answer. This observation made me question how my world view might have influenced my research up to this point, as it has been argued that the ontological position of the researcher can influence the shape of the research questions that they create in the first place (Grix, 2010).

A paradigm represents a world view that defines 'the nature of the ''world''' for the person holding that view, including their place within it (Guba and Lincoln, 1994: 107). For example, two people can view the same situation in entirely different ways, and this can be described as their 'world view' according to Kuhn (2012: 191). A person's view of the world is underpinned by their explicit or implicit assumptions (Cohen et al., 2007), and their world view influences their decision making and actions (Kuhn, 2012). One's interpretation of the world also depends on one's prior experiences (Kuhn, 2012). From

a personal perspective, reflecting on my past experiences as a primary school teacher, a lecturer and a student, I realise that my experiences of the uncertainties of the classroom have influenced my interpretation of the world, in that I have come to see it as a complex and ever-changing place. I commit to the belief that there are multiple individually constructed realities, and therefore I do not assume that reality is objective in nature. I reject the ontological and epistemological position of objectivism which views social phenomena as independent of the people involved (Grix, 2010) with things existing 'as meaningful entities independently of consciousness and experience' (Crotty, 1998: 5).

Instead I take a subjective approach to the world, viewing it as 'personal and humanly created' (Cohen et al., 2007: 8) which influences my epistemological assumptions or the way I believe 'we come to know what we know' (Grix, 2010: 63). In relation to my epistemological stance, I view the creation of knowledge as subjective, personal and unique as opposed to 'hard, objective and tangible' (Cohen et al., 2007: 7). Subjectivity assumes that people create and hold different views of reality (Guba and Lincoln, 1994) and social phenomena are created by the people involved (Grix, 2010). It is based on assumptions that truth and knowledge cannot be found separately from the context of the research (Somekh and Lewin, 2011). I concur with this idea, as in my view there could be no other way to develop an understanding of the main research issues than to conduct research which seeks the views of the students and tutors in the context where the issues reside. I acknowledge that my research questions could have been examined in different ways. However, I believe it was more appropriate to investigate them in a qualitative way. Thus, I needed to involve the students and tutors, and ask them about their experiences and perceptions to discover information that informed the answers to the research question. This personal examination supported me to understand that my ontological and epistemological stance had guided the shape of my research in the early stages and continued to influence my decisions and actions throughout the research process.

Reflecting upon, and articulating my ontological and epistemological assumptions, placed me in a stronger position to decide how to go about acquiring the information needed to answer my research questions, as suggested by Grix (2010). The notion that

research should aim to 'capture the variety of different ''truths'' held by different people' rather than to test an objective reality (Miller and Brewer, 2003: 156) resonated with my stance, and I strongly believed that the answers to my research questions would be filled with complexities and intricacies. As a result of my ontological and epistemological commitments and my desire to understand the complexity of the research issue, it was appropriate to frame my research within an interpretive paradigm. Taking an interpretivist perspective allowed me to understand and give privilege to the participants' views given that the ontological stance of interpretivism assumes that reality is represented through the eyes of the participants (Robson, 2002).

Adopting an interpretive stance enabled me to search 'for deep perspectives' on specific issues (Bassey, 1999: 44) allowing me to better understand the complexity of the main research issues. In contrast, the positivist paradigm views the world as if it exists 'independently of our knowledge of it' (Grix, 2010: 81), believing that reality is objective whereby the researcher and the researched are independent of each other (Scotland, 2012). It places importance on looking for relationships between variables (Robson, 2002) which, on reflection, was not appropriate in terms of the exploratory nature of my research. Furthermore, taking a positivist stance when people are the centre of research is not appropriate, as quantitative measurement cannot capture the meaning of social behaviour (Robson, 2002). In comparison, taking an interpretivist stance allowed me to recognise that my practice is central to the context (Cousin, 2009) and to the research issues, as well as permitting me to explore the participants' 'situated interpretations' (Crotty, 1998: 67) of their experiences in the given context.

As previously discussed, Wenger's (1998) CoP theory was relevant to my research focus in terms of the way it examines the complexity of the elements required to support learning through social participation. For example, Wenger's (1998) theory assumes that human beings learn and create meaning through interacting with each other, an idea which aligns with the interpretive paradigm which views the world as being socially constructed through the interaction of individuals (Bassey, 1999, Guba and Lincoln, 2005). In this way, Wenger's (1998) theory was a helpful analytical tool for examining the complexity of student engagement with online communities.

The Literacies for Learning in Further Education (LfLFE) framework (Ivanič et al., 2009) was also an appropriate tool to use in my research for examining student engagement with online communities. The LfLFE project (Ivanič et al., 2009), which took a broader view of literacy from a social practices perspective, explored the perceptions and experiences of college students regarding the reading and writing they engaged with in their everyday lives, as well as exploring what they did within the specific context of college. In a similar way, using the LfLFE framework in my research allowed me to further explore the students' experiences, perceptions and feelings regarding their engagement with online communication (both within and outside of the University setting) in a holistic way, which aligned with the interpretive paradigm which seeks to understand people's different perceptions of reality.

Through choosing the interpretive paradigm, my research developed theory through interpreting and analysing data rather than testing theory. From looking for meaning and patterns in the data (Grix, 2010) I developed theory using an inductive approach. Taking an inductive approach requires the researcher to refrain from interpreting data against a prior set of theoretical ideas. Instead it requires them to allow the 'data to speak for themselves' using the meaning integral to the data as the basis for drawing theoretical conclusions (Miller and Brewer, 2003: 154). As my research involved human beings whose experience is characterised by complexity (Somekh and Lewin, 2011), I was mindful that I needed to interpret their actions in light of their underlying ideas, as advised by Robson (2002) through trying to understand any deeper implications in the data (Somekh and Lewin, 2011). In contrast, taking a deductive approach to data involves the researcher seeking evidence to confirm or disconfirm a prior set of theoretical assumptions (Grix, 2010), which would not have been appropriate given the investigative nature of my research.

Through interpreting the meaning in the data in this way, I recognise that I offer a construction of the participants' perceptions in this thesis. As the interpretive paradigm adopts the view that people have different perceptions of reality, it also recognises that the researcher might change what they are trying to observe in their efforts to understand it (Bassey, 1999). I therefore acknowledge my potential influence on the research by 'owning up' to my subjectivity (Cousin, 2009: 8) through recognising that my

own opinions and values are entwined in the research process and the final product. This issue is discussed in further detail in the ethics subsection on page 87.

The qualitative methodology used in this research incorporated a case study which was approached ethnographically. As a course tutor, I acknowledge that I was, to some extent, an insider involved in the creation of the research. Interpretive research commonly uses qualitative methodologies (Robson, 2002) and the case study approach, which is inductive in nature (Chadderton and Torrance, 2011), is a research approach that can be utilised when researchers take an interpretivist stance (Somekh and Lewin, 2011).

Figure 2 shows the four elements that informed each other and the overall process of my research. I used Crotty's (1998: 4) illustration (shown in blue) to map the process of my own research (shown in red).

Epistemology
Subjectivism

Theoretical Perspective
Interpretivism

Methodology
Case Study

Methods
Individual Interviews
Focus Groups
Research Diary
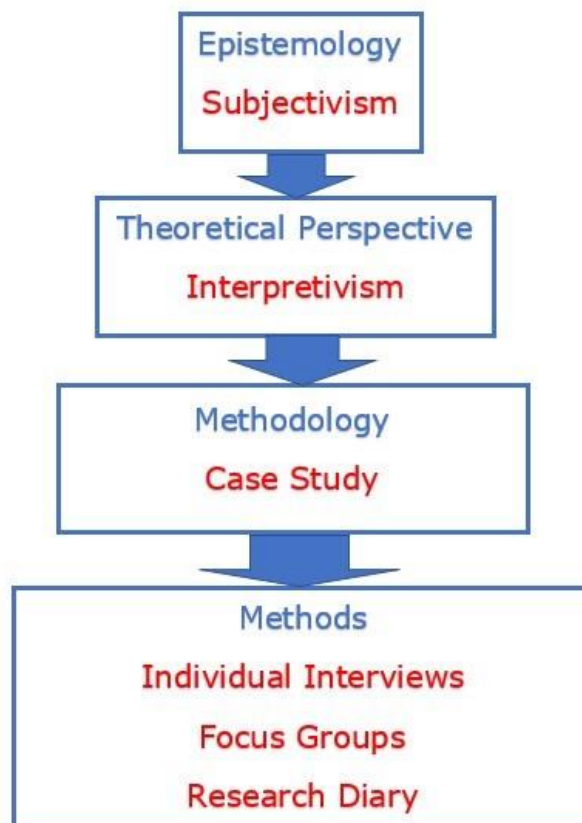
Adapted from Crotty (1998: 4)

Figure 2: The Four Elements that Informed Each Other and the Overall Research Process (Adapted from Crotty, 1998: 4)

The following subsections discuss the chosen methodology and how this informed the selection of research methods.

Research Methodology – Case Study

My research was driven by a concern raised in my practice which led me to seek a deeper understanding of engagement with e-learning communities. To fully explore this issue in the blended course under study, I was interested in understanding the factors that affect students' and tutors' preferences for online and face-to-face learning, as well as the factors that contribute to, and discourage active engagement in e-learning communities. I chose the case study approach as it provided me with the advantage of studying these issues in great depth (Flyvbjerg, 2006, Cohen et al., 2007, Denscombe, 2010) as case study 'privileges in-depth enquiry over coverage' (Chadderton and Torrance, 2011: 54) to 'thoroughly understand' the case (Stake, 1995: 9). Case studies typically focus on one or a few instances of a phenomenon with a view to providing a detailed account of the processes, experiences, activity, and relationships occurring in that instance (Stake, 1995, Bell, 1999, Denscombe, 2010) and they have the power to explain why something happens, which aligned with my research aims.

Case study, according to Chadderton and Torrance (2011: 53) asks 'What is going on here?' before trying to understand and describe a situation, as it assumes that things are not always as they seem. This thought resonated with the questions I had previously asked myself regarding engagement with e-learning communities. Furthermore, case studies are the preferred strategy when the research focus is typically about a 'phenomenon in context' (Robson, 2002: 179). As the research issue resided within the situated context of the programme involved in this research, a case study approach was appropriate as it allowed me to examine the contextual conditions that were important to, and overlapped with the research issue (Yin, 2003, Robson, 2002). To exemplify, my research aimed to study the 'phenomenon' of engagement with online communities in the specific context of the blended programme where the students and tutors engaged with online platforms. Case study was beneficial in terms of allowing me to examine how the complex relationships and processes regarding students, tutors and learning platforms were interrelated as case study examines the complexity of interactions

between human exchanges, events and other factors (Cohen et al., 2007) to produce 'context-dependent knowledge' (Flyvbjerg, 2006: 223).

Case studies should contain a clear portrayal of the boundaries of the case and include a specific account of what they are (Cousin, 2009, Denscombe, 2010). Therefore, I initially asked myself what would my research be a case of, and where would I draw the boundaries around the case? I reflected that the case or the main 'unit of analysis' (Cousin, 2009: 140) was the students and tutors engaging with the PG blended learning programme. The boundaries of the case were defined by the issue of central importance to the research, for example, student engagement with online communities within the confines of the activities in a specific PG blended learning programme. In this way, this case study could be characterised as an 'instrumental case study' (Stake, 1995: 77) where the research was carried out to understand the dominant issues and the relationships within them, rather than an 'intrinsic case study' whereby the case itself is of primary interest (Stake, 1995: 3).

The case study was also defined as both exploratory and educational in nature. It was exploratory in the sense that it explored problems or opportunities affecting those in the case study setting (Denscombe, 2010). For example, the issue regarding engagement in e-learning communities potentially impacts upon the students and tutors engaging with the programme. The case study was also defined as being educational in nature as it aimed to investigate activity within aspects of an educational programme to inform and 'improve educational action' (Bassey, 1999: 39). As previously discussed, this research might feed into the VLE guidance created by my workplace regarding improving the pedagogic practice of online community development.

As my research focus was directly concerned with my work setting, my position could be described as that of an 'insider' (Robson, 2002: 382). Privileging the detailed insider's perspective is a philosophical principle of ethnography (Pole and Morrison, 2003), which underpins the practice of educational case study where emphasis is on coming to know the insider perspective from observing participants in their natural setting (Chadderton and Torrance, 2011). My research drew from the principles associated with ethnography through my acknowledgement of my partial insider perspective in my setting. As a

course tutor, I acknowledged that I was, to some extent, an insider in relation to the research, and involved in the creation of the research. However, whilst I claim to have an insider perspective as a tutor, I have an outsider perspective in relation to the students' experiences. I hoped that my privileged position of practitioner researcher would enable me to get closer to the reality of the situation (Costley et al., 2010) to develop a deeper understanding of the participants' perceptions and experiences. Insider research can present possibilities for improving practice development (Atkins and Wallace, 2012). As a partial insider researcher I hoped to use this position to an advantage to improve my practice and the practice of others.

An important point to note is that ethnography traditionally draws upon the method of participant observation to study community groups (Robson, 2002, Pole and Morrison, 2003). However, the nature of the blended learning course involved in this case study did not easily permit the use of this method due to limited opportunities for face-to-face interaction with the participants. In terms of making online observations, the brevity of the online posts made by students meant that online observations would not have been worthwhile as a data collection method as students were not regularly participating with each other through the BBDBs. Therefore, whilst the case study was approached broadly ethnographically, it did not use the method of participant observation.

Limitations of Case Study Research

One concern about case studies is that they provide little basis for generalisation (Yin, 2003) in the sense that they do not always allow findings to be generalised within and beyond case settings (Bell, 1999, Denscombe, 2010). This issue could be considered a possible limitation of my research. However, case study research is not used to firstly understand other cases but to better understand the case at hand (Stake, 1995), through focusing in-depth on the detail of particular events (Flyvbjerg, 2006). Furthermore, Stake (1995) argues that because case studies are strong in reality and often in harmony with the readers' own experience, they can help the reader to gain an 'experiential understanding' of the case (Stake, 1995: 37) thus providing a basis for generalisation (Robinson and Norris, 2001).

The central purpose of my research was to develop a deeper understanding of the research issues to create knowledge to improve my own and others' practice regarding e-learning pedagogy rather than to produce results that could be generalised to other cases. Therefore, it could be argued that the issue of generalisation is not a significant limitation of my research. Nonetheless, I believe that it is important to help the reader to understand 'the similarities and differences' between their situation and the research context (Schofield, 2000: 76) so that other practitioners can determine the usefulness of my findings in relation to their practice if appropriate. Whilst I could not provide the 'thick description' associated with ethnography (Geertz, 1973: 10), I purposely provided detailed information based on my insider knowledge of the context and situation. This included presenting rich contextual information throughout the thesis to help the reader to identify with the research narrative (Robinson and Norris, 2001) to enable them to decide whether this research is transferable to their setting and context (Lincoln and Guba, 2000). For example, it might be the case that the characteristics that occur in my research situation are more likely to transpire in other situations that share broadly the same features. The research data was also deliberately conveyed as an in-depth, descriptive narrative which included a detailed analysis (Cousin, 2009) to further support the reader to decide whether this case is relevant to them. In this way, lecturers teaching on similar courses might recognise certain features of my research in their own practice, and they may be able to use elements of my findings as a basis for improvement.

In terms of disseminating my case study findings, I intend to present them to colleagues to encourage them to recognise features of my research that might be relevant to their practice. Through presenting my findings using different platforms such as through a written report, the annual conference and peer-reviewed journals, I hope to be able to take the textual presentation of my thesis to reach the practice of a wider audience. In this way, other practitioners might be able to identify with aspects of my research, which might support them to generalise from my research and practice to their practice, if appropriate.

Another concern regarding case study research is that it encompasses a bias towards confirmation of the researcher's predetermined ideas (Flyvbjerg, 2006) which can lead to questions about the rigour and value of such research. In order to protect against

such a bias occurring given that I was the researcher in this research, I endeavoured to be reflexive throughout the research (Mauthner and Doucet, 2003) as well as explicitly reflecting on my own assumptions at the outset. I made a conscious effort to search for my own personal taken for granted assumptions (Brookfield, 1995), including at the point when I engaged with the data, as advised by Coffey and Atkinson (1996). I also checked my interpretation of extracts of the data with colleagues who were not involved in the research. Furthermore, as a way of checking my insider perspective, I asked a colleague to provide feedback on my interpretation of the research context. Further discussion regarding these issues is included on page 87 where I make my ethical position transparent.

Data Collection Methods

To understand, interpret and report the intricacy of the situation regarding engagement with online communities, I needed to employ research methods that would allow me to privilege the participants' viewpoint to try to understand their perceptions to answer my research questions. The data collection methods needed to generate narrative accounts in order to understand what the participants had enjoyed or found difficult, in terms of their engagement with online communities.

Case study permits the triangulation of a range of data collection techniques (Robson, 2002, Yin, 2003) to examine complex situations, allowing for the collection of 'sufficient' data which helps to build an understanding of the case (Bassey, 1999: 47). Thus, I carried out individual interviews and focus groups (FGs) with the students to understand their perceptions, as well as interviewing tutors, as interviews are an effective way of exploring the 'multiple views of the case' (Stake, 1995: 64). I also kept a research diary to record my own reflections about the research. Solely exploring the participants' views could be seen as a potential limitation of my research. However, I believe that the qualitative methods used enabled data to be collected in 'the most effective and appropriate manner' (Trafford and Leshem, 2008: 99), which allowed me to explore the participants' perspectives, providing adequate data to examine the complexity of the research issues.

My approach to data collection, analysis and interpretation could be described as naturalistic (Lincoln & Guba, 1985) in the sense that by working inductively, and analysing and interpreting the data between each set of interviews, new questions and research issues emerged (Armstrong, 2010), which were explored as the research progressed. These issues are discussed in detail in the sections below.

Semi-Structured Interviews

Individual semi-structured audio-recorded interviews were conducted with students as they provided a worthwhile way of developing a deeper understanding of their perceptions (Morgan, 1997, Kvale and Brinkmann, 2009) of their engagement with e-learning communities. Similarly, the three tutor interviews provided an opportunity to gain insight into the perceptions of the tutors who had taught on the programme. For practical reasons, all the interviews with students were carried out over the telephone as the students were distance learners, dispersed throughout the country. I was also cognisant of the pressures the students faced as full-time serving primary school teachers. Carrying out telephone interviews in this way meant that the participants could choose to be interviewed at a convenient time for them. Twenty telephone interviews were carried out with student participants, 13 of these were standalone interviews and 7 were follow up interviews to the FGs. Three standalone interviews were carried out with tutors, 2 of these were face-to-face interviews and 1 was conducted over the telephone due to distance issues. The student interviews ranged from 15.23 to 33.12 minutes long. The tutor interviews ranged from 28.24 to 38.35 minutes long. The data gathered from the interviews was transcribed verbatim.

I chose to interview participants in a semi-structured style to enable me to be flexible enough to pursue 'unexpected lines of enquiry' (Grix, 2010: 128) during the interview whilst following the carefully worded interview guide. Conducting interviews opened new areas of understanding through dialogue and conversation (Campbell and Lassiter, 2014). Although the interviews were couched as an experience to jointly construct knowledge (Campbell and Lassiter, 2014) between myself and the interviewee, I was aware that I was a central part of the interaction, governing the topic and controlling the following up of questions. Rapley (2001: 318) argues that the interviewer's talk 'is central to the trajectory of the interviewees talk'. During the interviews I tried to

respond sensitively to the interviewees (Bassey, 1999) through listening carefully to ensure they were not unintentionally pressured to respond to questions they might not have felt comfortable with. To reflect on the way that I potentially influenced the conversation during the interviews, I kept detailed reflections in my diary as discussed in the 'Research Diary' subsection on page 73. The style of the interviews and the development of the interview guide is detailed in the subsection entitled 'The Interview Process'.

Focus Groups (FG)

FGs can be used alongside other methods (Cousin, 2009) and when they are used in combination with individual interviews, each method can provide new understandings (Morgan, 1997) regarding the topic of research. Two audio recorded FGs were conducted in a face-to-face way at the programme workshop days. This decision was made since the students would already be geographically together at these days which provided an opportunity for them to be involved in a group discussion, without putting additional pressure on them in terms of time and travel. The FGs were 28 minutes and 40 minutes long and the data gathered from the FGs was transcribed verbatim. The first FG was carried out with 5 student participants and the second FG involved 2 student participants. Due to practical issues relating to some students not attending face-to-face sessions, the second FG was small in size, which can sometimes make it difficult to maintain a discussion (Morgan, 1997). Despite the small number of participants in the second FG, both members were highly involved and keen to discuss their shared experiences. Furthermore, the small group size allowed me to spend more time exploring the views of each participant.

The FGs were followed up with individual interviews (with the same participants) to allow each method to build on the findings of the other method (Morgan, 1997), which provided new insights into the topic being studied. Using two methods in this layered fashion meant that data gathering and data analysis progressed in parallel, which enabled me to probe further about issues that had arisen from the analysis of the previous data set. For example, it became apparent from the first set of interviews that several students had communicated with others through online platforms outside of the BB area. The FGs offered another chance to probe about this finding in a group

discussion, allowing the participants to build on each other's contribution about the issue, thus providing deeper insights. The seven follow up interviews then offered a way of pursuing pertinent matters raised in the group discussions (Robson, 2002) providing 'depth and detail' on issues that had been discussed in a more general way in the FGs (Morgan, 1997: 23). For instance, in the follow up interviews, I was able to probe more deeply about the participants' emotional reactions regarding engaging with others through online platforms, as well as exploring how small groups of students had supported each other throughout the programme, both issues which were noted from the FGs. Conducting multiple interviews with the same participants in this way also allowed me to check the 'accuracy and stability' of their contribution over time, which can improve the quality of research (Roulston, 2010: 205).

The FG discussions centred around themes closely related to my research (Robson, 2002, Kvale and Brinkmann, 2009), and they enabled me to capture insightful accounts of the students' views, particularly when attention was given to differences in views given by group members (Barbour and Schostak, 2011). FGs are often used to explore the experiences of particular groups of people (Cousin, 2009), and they can gradually progress as participants increasingly build on each other's remarks (Pole and Morrison, 2003) which I found to be the case in the two FGs that I conducted. Furthermore, the group dynamic and interactivity of the group members in FGs can produce rich data (Cousin, 2009). I believe the FGs provided a chance to explore similarities and differences in participants' perceptions through them 'sharing and comparing' (Morgan, 1997: 21) regarding certain aspects of e-learning communication. They allowed me, as the moderator, to encourage a dialogue between group members (Grix, 2010) guided by questions supplied by me, which produced data that would not have been available without the interaction of the group (Morgan, 1997).

The FGs were semi-structured in nature to guard against them being too rigid and to encourage the development of discussion (Grix, 2010). However, it was important to be mindful of the influence I had over the group's interaction. I was aware that researchers can sometimes narrow a group discussion by predetermining beforehand which issues are important (Morgan, 1997). To combat this potential pitfall, I used a 'funnel' approach (Morgan, 1997: 41) whereby the discussion began with a less structured

conversation in order to hear the participants' viewpoints, before moving to a more structured approach, including discussion of specific questions closely related to the research issue. Generating a 'permissive atmosphere' can encourage participants to share their personal perspectives on the subject (Kvale and Brinkmann, 2009: 150), therefore I endeavoured to create an atmosphere where I, as the researcher, showed a clear, yet non-judgemental, interest in the participants' views.

Whilst FGs can supply valuable evidence of the variation in participants' opinions and experiences (Morgan, 1997), the nature of being in a group may be considered a weakness of FGs, as the group's presence may affect what individual members say (Morgan, 1997). I did not notice any domination by participants with extreme views in the FGs, which can potentially cause bias (Robson, 2002). However, I did observe that one member was quieter than the others in the first FG. Participating in FGs can sometimes cause unintentional stress to participants as members may feel uncomfortable to contribute their views when they are having discussions with people who may be strangers to them (Kvale and Brinkmann, 2009). Having given prior thought to the potential consequences of the interaction in the FG, I took great care to ensure that pressure was not placed on quieter group members to share their views. I also checked that participants were not showing any signs of distress and were still willing to continue the discussion. However, it was quite challenging to strike a balance between ensuring that the quieter member felt welcome to contribute, and placing unnecessary pressure on them to speak. From reviewing the data from the first FG, it transpired that the quieter member had contributed less to the discussion than the others. The follow up interviews provided an opportunity for me to explore their views, which was another benefit of conducting follow up interviews. The multiple perceptions gathered through employing a combination of interviews and FGs allowed me to triangulate the data sources, helping to clarify the contributions made by all the participants (Stake, 1995), as well as assisting with achieving depth and richness in the data gathered (Polkinghorne, 2005).

The development of the interview guide is discussed in detail in subsection - The Interview Process.

Research Diary

The use of a research diary throughout the research process allowed me to capture 'naturally occurring' data outside of the interviews, as well as recording important personal reflections (Cousin, 2009), including my 'views, opinions and feelings' about the research (Pole and Morrison, 2003: 58). Journal writing can be viewed 'through many different lenses' including to record events and/or as a way of expressing oneself (Boud, 2001: 9). The use of a diary can also yield rich and detailed information that would not be obtainable by other means (Pole and Morrison, 2003). However, Pole and Morrison (2003: 62) discuss how personal diaries can be criticised in terms of them containing 'highly selective' reflections rather than including a balanced account of events. Nevertheless, McAteer (2013: 69) argues that regular diary writing is important because it keeps thoughts about the research questions to the fore and allows opportunities for 'personal and emotional' engagement with the research. Through logging my reactions to interactions and events that occurred throughout the research, as advised by Koch (2006), and capturing them in a 'self-reflective' diary (Williams and Morrow, 2009: 579), I remained focused on the research aims and importantly, I was encouraged to be reflexive as a researcher.

In my position as a practitioner researcher with a dual role, it was important for me to practise reflexivity as this can provide an important opportunity for self-triangulation (Drake, 2010). Stimulating reflexivity and developing an ability to 'step back and look at a situation differently' is an important aspect for novice insider researchers to avoid bias (Drake, 2010, Atkins and Wallace, 2012: 54) and to examine how they may influence the construction of their research (Finlay, 2002, Rennie, 2004). Through keeping a diary of my reflections, I was better able to connect with myself to locate my position in my research which increased my awareness of my own influence. I used my diary to engage with reflexivity at the data collection stage through noting my reflections before and after each interview and FG. Capturing my reflections helped me to examine unexpected issues and interrogate my own hidden biases, assumptions (Barge, 2004) and actions. Similarly, making diary notes at the data analysis stage helped me to examine my own readings of the data. Diary keeping can support researchers to be overtly aware of their interpretations of the participants' experiences (Finlay, 2002) and being reflexive in this way encouraged me to recognise and thus mitigate against my influence as researcher

(Naveed et al., 2017). Importantly, this type of reflexivity can increase the trustworthiness and rigour of qualitative research particularly for researchers on professional doctorates engaging with small-scale projects involving colleagues (Drake, 2010).

Data Collection

Research Participants

The participants who voluntarily took part in this research included both students and tutors engaging with the programme. A total of 20 students (self-selecting volunteers) were recruited to take part, and 3 tutors also gave their permission to partake. All the students were practising primary school teachers and the three tutors had been teaching on the programme between three and six years at the time the research took place.

Recruitment of Participants

Students

All students who were engaged with each programme phase (i.e. the PGCert, the PGDip and the MA phase) were invited to partake in this research. Of the total number of the 121 students invited, 20 students gave their permission to be involved. The 20 self-selecting participants represented approximately 17% of the total number of students invited and included a range across gender. There were 16 female and 4 male student participants equating to 80% female and 20% male, which was a similar representation of the gender balance of the course (86% female and 14% male) at the time. Of these 20, 13 students gave permission to take part in standalone interviews and 7 students gave permission to be involved in FGs and follow up interviews. Nine students were recruited from the PGCert cohort and 11 students were recruited from the MA cohort.

Potential participants were initially approached to take part through a recruitment email. Sending an email was the most appropriate way of reaching a large number of distance learning students in the first instance given that the face-to-face sessions were infrequent, particularly in the PGDip and MA programme phases. In order to be as transparent as possible, the recruitment email outlined the purpose of the study and

the rationale for inviting the students to be involved. The email also provided an outline of what would be expected from them if they chose to take part in terms of the number of, and approximate length of the interviews, as well as the ways the research findings might be disseminated. As well as clearly explaining that their participation would be voluntary, and they would be free to withdraw at any time without giving a reason, the email also stated 'Your decision to participate, withdraw or not be involved at all will not have any impact on your grades, assessments or future studies'. It was important to make this clear from the outset given that I was a tutor working on the MA programme phase. Of the 11 students recruited from the MA cohort, I was tutor to 8 of those students and this issue is considered in more detail in the ethical framework. The recruitment email offered my contact details for those students who wished to ask further questions or for those who were interested in taking part in the research (see Appendix 1.3).

Those students who indicated their willingness to agree to take part were then sent a participant information sheet (see Appendix 1.4) which explained in more detail about the research and the requirements of their participation should they decide to be involved. They were also sent a consent form (see Appendix 1.5) and advised to take time to read the information sheet before finally deciding whether to be involved or not. At the point when students indicated they had read the information and given their consent to be involved, we negotiated convenient times to hold the interviews. The students were asked to return the completed consent form prior to the interview. Four students gave their consent verbally over the telephone and this was audio recorded prior to the interview. Every effort was made to work around convenient interview times for the students as I was aware of the pressures they faced as full-time serving classroom teachers studying at MA level on a part-time basis.

For the seven students who indicated that they would be willing to take part in a FG, consent forms were either returned by email prior to the day or returned in hard copy form on the day of the FG. Prior to the FGs, I verbally explained the purpose of the study and reminded the students they were free to withdraw at any point during the discussion without having to give an explanation.

Tutors

All three tutors who worked on the programme were invited to be involved in the research. Tutors were approached to take part during an informal meeting between themselves and myself where I explained the purpose of the research. I distributed participant information sheets (see Appendix 1.6) and copies of consent forms (see Appendix 1.7) for them to read. They were asked to contact me if they agreed to take part or if they wished to ask any questions about the study. Three tutors agreed to be involved and all tutors were female. Two interviews were carried out in person and one interview was carried out by telephone.

Sampling

I was driven by the focus of my research to identify a purposive sample, and to involve students and tutors from my own institution to enable the specific needs of the project to be met (Robson, 2002). Purposive sampling is often a feature of qualitative research (Cohen et al., 2007). It involves the researcher using their judgment to select the cases to be involved in the sample to meet their particular research needs (Cohen et al., 2007) to 'provide the most information-rich data possible' (Morrow, 2005: 255). As my research aimed to explore the factors that affect people's engagement with e-learning communities in the context of a specific programme, the sample needed to include students and tutors with experience and knowledge of that programme. The sample was chosen for this specific purpose and therefore drew from 121 students and 3 tutors who were all eligible to participate. Once the groups of participants (i.e. 121 students and 3 tutors) had been purposively selected, participants volunteered to be involved and 23 self-selecting participants allowed me to explore my research questions in depth.

Time-scale of Data Collection

The data collection was carried out over a period of eighteen months, with interviews and FGs alternating throughout this time. The first interview was carried out in October 2016 and the final follow up interview was completed in March 2018.

Table 1 provides a representation of the stages of the data collection process.

Data Collection Stage	Date	Action
Stage 1	July 2016	Ethical approval sought and gained from the University.
Stage 2	October 2016	Recruitment email sent to 53 PG Certificate students (2015 Cohort) and 3 PG Diploma (2016 Cohort) students. Individual telephone interviews were carried out with 4 students.
Stage 3	October 2016 - February 2017	Recruitment email sent to 25 MA (2015 Cohort) students. Individual telephone interviews were carried out with 9 students.
Stage 4	January/February 2017	Informal meeting held between me and course tutors to explain about the purpose of the research project. 3 tutors agreed to be involved in individual interviews.
Stage 5	March 2017	Recruitment email sent to 33 PG Cert (2016 Cohort) students. A FG was carried out with the 5 students in March 2017.
Stage 6	May 2017	5 follow up telephone interviews were carried out with students.
Stage 7	June 2017	Recruitment email sent to 7 MA (2016 Cohort) students. A FG was carried out with 2 students in June 2017.
Stage 8	February/March 2018	2 follow up telephone interviews were carried out with students.

Table 1: Stages of Data Collection

Data gathering and analysis were undertaken concurrently throughout the data collection period, which enhanced the depth of analysis. This meant that the early analysis of the data informed the development of the next set of data collection. Figure 3 illustrates the four step process:
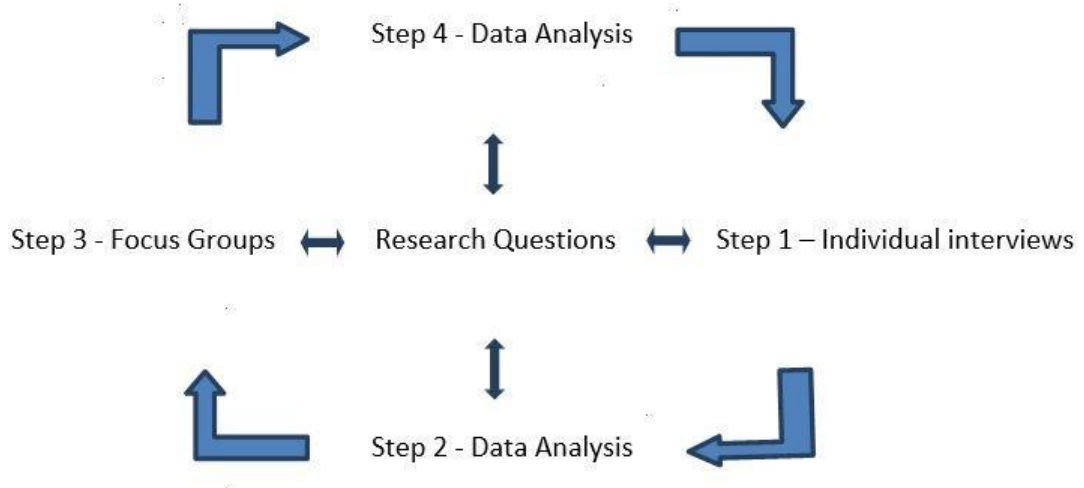
Figure 3: The Four Step Process of Data Collection and Data Analysis (Adapted from Trafford and Leshem, 2008: 98).

The Interview Process

Interviewing has been described as a way of encouraging participants to talk about their experiences and perceptions of a topic chosen by the researcher (Braun and Clarke, 2013) whilst allowing the researcher to capture the participant's language. Semi-structured interviews have been defined as having the purpose of 'obtaining descriptions of the life-world of the interviewee in order to interpret the meaning of the described phenomena' (Kvale and Brinkmann, 2009: 3). Semi-structured interviews were used as this method allowed me to ask questions which were related to the research focus whilst providing a chance for participants to discuss unanticipated issues that were not included in the planned interview guide (Braun and Clarke, 2013). The interview guide enabled me to guide the conversation whilst allowing me to follow up on unforeseen issues.

The interview guide was based on my four subsidiary research questions; **What are the factors that affect students' and tutors' preferences for online and face-to-face learning?, What are the factors that contribute to active engagement in an e-learning**

community?, What are the factors that discourage active engagement in an e-learning community? and **How can tutors best support the development of an e-learning community?** To ensure the interview guide was firmly underpinned by the research questions, as advocated by Stake (1995) and Braun and Clarke (2013), I created a table which mapped the four subsidiary research questions to potential interview questions for students and tutors. An interview guide ought to translate the research questions into questions that are worded in such a way that they can be easily understood by the participants (Brinkmann, 2013). For exemplification at this point, part of this table is presented below (See Appendix 2.1 for full version of the Development of Interview Guide).

DEVELOPMENT OF INTERVIEW GUIDE			
Main Research Question **What Affects Engagement in an Educational Online Community?**			
Subsidiary Research Question	**Potential Interview Question for Students**	**Potential Interview Question for Tutors**	**Probes as Required**
What are the factors that affect students' and tutors' preferences for online and face-to-face learning?	Could you tell me what you particularly value about the face-to-face days? Could you tell me what you particularly value about the online BB platform? Are there any aspects of the face-to-face days you prefer to online learning?	Which aspects of the face-to-face days do you think are particularly important to the students? Which aspects of the online BB platform do you think are particularly important to the students?	Could you give me an example? Is it possible for you to elaborate on that idea? Could you explain that further?

	Are there any aspects of online learning that you prefer to the face-to-face days?	Which aspects of the face-to-face days are important to you? Which aspects of the online BB platform are important to you?	Is there anything else?

Table 2: Extract of Development of Interview Guide

It was particularly important to probe about the participants' perceptions of face-to-face sessions as well as their views of the BB online platform, given that these sessions formed a significant part of the overall blended learning experience and could therefore potentially impact on the development of online communities. Therefore, in addition to probing participants' perceptions of the BB online platform, several questions were developed which asked participants about their views and experiences of the face-to-face sessions.

The interview questions were refined to ensure that they were expressed in a clear way before being collated into the first draft of the interview schedule. For manageability, approximately ten open-ended questions were asked, as suggested by Grix (2010). Morrow (2005) suggests that asking a few open-ended questions in an interview is more likely to draw deeper meanings from participants than asking a greater number of questions. In addition to planning a series of open-ended questions, several potential probing questions were included to support me to encourage participants to 'open up, expand on their answers and provide more detail' (Braun and Clarke, 2013: 84). However, I was also aware that good interviewers 'follow up on unanticipated issues and ask spontaneous and unplanned questions' (Braun and Clarke, 2013: 79), therefore I did not limit myself to only asking the planned probing questions, and I allowed myself to ask spontaneous questions when appropriate. By being prepared to ask follow up questions to 'topic initiating' questions, researchers often get a chance to gain 'very detailed and comprehensive talk on those specific topics' (Rapley, 2001: 315).

Piloting

After the interview schedule had been finalised, a pilot interview was carried out with a colleague who was not involved in my research. Piloting should be done at the first stage of data gathering if possible (Robson, 2002) as it can highlight drawbacks and ambiguities (Lewin, 2011) of the research design. The interview questions were mentally rehearsed in pilot form beforehand, as advised by Stake (1995). Testing out the interview schedule was useful as it allowed me to notice issues with the wording that were ambiguous to the participant. For example, the use of the wording 'online learning' led the pilot interviewee to clarify whether I was referring to online learning through Blackboard or online learning more generally.

As a result of the pilot interview, several words in the interview guide were amended and the following two additional questions were included: 'In relation to social media, to what extent do you engage with this? and 'What do you think about the Blackboard site in terms of allowing you to network with other colleagues?'. The amendments made to the first interview schedule after the pilot interview are presented in Appendix 2.2. The final versions of the student and tutor interview schedules are presented in appendices 2.3 and 2.4. In the final version of the interview guide, I followed the advice of Braun and Clarke (2013) by ensuring that the order of the questions flowed in a logical way, starting with more general questions such as 'Could you describe any specific aspects of the Blackboard online learning environment which have been particularly important to you? and funnelling down to questions about specific issues, for example 'What, if anything, prevents you from engaging more with each other online through Blackboard?

After conducting the first three interviews I noticed the students had mentioned that they had communicated with others through other online platforms outside of the BB online platform (as noted in Appendix 5 in the audit trail extract). This observation led me to review my interview guide and I added the question 'Did you communicate with people from the course in any other way, for example through private emails? If so, could you tell me more about that?' Qualitative researchers should carefully review their interview guide after the first few interviews (Braun and Clarke, 2013). By adding this

question, I was able to probe more deeply about how students had communicated with each other through online platforms outside of the University environment.

To develop my thinking and challenge my own assumptions during the interviews, I turned to the work of Schon (1983) and his ideas that reflection in and on action are the processes we can use to allow us to constantly learn from our experience. Detailed reflections were kept in my diary before, during and after each interview for the first few interviews to help me to reflect on my interview technique. Reflections were noted in my diary after every interview and FG thereafter. Reflecting in this way helped me to learn from unexpected issues raised in the interviews, supporting me to refine the interview schedule appropriately throughout the research process.

The interview schedule presented in appendix 2.3 was also used for the FGs, however based on the early analysis of the data from the first 13 individual interviews, I added two questions regarding online platforms outside of the Blackboard area. These questions were: 'What have you done to build an online community either through face-to-face or other online platforms outside of the Blackboard area?' and 'What are your thoughts about the creation of a course discussion board on a social networking platform such as Facebook?' This amendment was based on my observations that several students had discussed communicating with other students through online platforms outside of the BB area. Any amendments made to the interview schedule were logged as the research progressed, as advised by Brinkmann (2013).

The interview guide was redrafted for the individual follow up interviews based on new matters which had arisen from my interpretations of the data from the first FG. Interview guides can evolve across the entire collection of data if new issues arise (Braun and Clarke, 2013). From reflecting on the themes that emerged from the FG data, the amended interview guide included questions that were specific to each participant. These amendments were partly based on my early findings, and partly based on a previous research study by Reilly et al. (2012). Interview questions can be informed by previous research (Braun and Clarke, 2013), and an example of two interview questions informed by the article by Reilly et al. (2012) were:

Can you think of a specific time during the course when you have felt connected or part of a community? Could you explain about that experience?

Can you think of a specific a time during the course when you have felt isolated and/or unknown? Could you please explain about that experience?

These questions linked to the early themes created from the data analysis. They were useful in terms of eliciting specific points in the programme when students might have felt connected or isolated, and what might have been happening to make them feel this way. These questions (and the information gleaned from them) were also useful when reflecting about elements of Wenger's (1998) theoretical framework. The amended interview guide for the first set of follow up interviews is presented in the form of a matrix which displays the rationale for each new or amended interview question (see Appendix 2.5).

The interview guide was amended again following the early analysis of the data from the second FG (see Appendix 2.6), as it was clear that the two participants involved had supported each other throughout the programme. Therefore, to probe more deeply about the support they had given to each other, they were invited to discuss specific examples of this support as shown in the following interview questions:

Can you talk me through a specific example of when you have provided encouragement and moral support to your colleague (either through online communication or through face-to-face interaction)?

Can you talk me through a specific example of when you have felt moral support and encouragement from your colleague (either through online communication or through face-to-face interaction)?

Can you talk me through an example of when you have supported each other in your learning (either through online communication or through face-to-face interaction)?

Is it possible to reflect about (and explain) the difference (if any) between the way you felt supporting one another online and face-to-face?

The flexible, qualitative nature of the research enabled me to amend my research design in an inductive, iterative way as demonstrated in the discussion above. Trafford and Leshem (2008: 99) suggest that 'inductive methods tend to be […] more open to modification and adaptable to contextual circumstances'. Allowing for amendments to

be made to the interview schedules over time enabled me to develop 'an emergent design sensitive to the growing body of data' (Morrow, 2005: 255), which was a benefit within the research process.

Trustworthiness

In experimental research, reliability is the extent to which a finding can be repeated in the same circumstances (Bassey, 1999). Internal validity relates to cause and effect (Bassey, 1999) and how research findings correspondence with reality (Morrow, 2005). External validity relates to the extent to which cause and effect relationships can be generalised to other contexts (Bassey, 1999). One concern in regard to reliability and validity when undertaking flexible, qualitative research is that identical circumstances cannot be re-created in order to replicate (Robson, 2002). Furthermore, whilst these concepts are vital to experiments and surveys, they are problematic in qualitative case study research, which is the study of a singularity and is not primarily concerned with cause and effect relationships (Bassey, 1999) or generalising to other contexts.

The concept of trustworthiness in qualitative research has been proposed as an alternative to reliability and validity in quantitative research (Bassey, 1999, Cousin, 2009) as the techniques used in fixed design research are inappropriate for flexible, qualitative research (Kirk and Miller, 1986 cited in Robson, 2002: 169). For example, the notion of validity in qualitative research is addressed through the 'honesty, depth, richness and scope of the data achieved' (Cohen et al., 2007: 133). Whilst different measures for establishing validity or trustworthiness in flexible, qualitative research are required (Kirk and Miller, 1986 cited in Robson, 2002: 169), researchers are obligated to justify that their research has been carried out with diligence (Williams and Morrow, 2009).

To increase the trustworthiness of my research, I have provided detailed information in this thesis about the procedures used, including information about recruitment strategies, interview/FG instruments and procedures, the interview process and the data analysis techniques used, which should help to increase the integrity of my research (Yin, 2003, Williams and Morrow, 2009, Roulston, 2010). Careful consideration was given to the way I gathered, transcribed and interpreted the data and a close record of

all the research activities was kept. In addition, multiple methods of data collection were used, which can increase the rigour of research (Robson, 2002, Stringer, 2008). These issues are discussed in detail in the following sub sections.

Data Gathering

To increase the trustworthiness of the data gathered, the interviews and FGs were audio taped and transcribed verbatim to help to protect the data in its 'raw' form, thus reducing the selective effect of my perceptual skills (Lincoln and Guba, 1985 in Seale, 1999). Case study can be criticised for having a self-reporting bias that relates to the fact that the researcher might be relying on their memory (Cohen et al., 2007). Participants were invited to read the transcribed interview data to check they were satisfied with their contribution and the accuracy of the transcription. My interpretation of the data was also checked with participants at certain points as it has been suggested that sending transcripts back to participants to check for accuracy alone is not always sufficient as memory can change over time (Morrow, 2005). Therefore, researchers must take responsibility for checking how well their interpretations reflect the interviewee's meanings (Morrow, 2005). This issue is discussed in the following sub-section.

Interpretation of Data

To increase the trustworthiness of my interpretation of the data, close records were kept justifying the steps through which the interpretation was made (Mason 1996 cited in Robson, 2002: 171). The interpretation of data was checked for appropriateness with both the participants and with colleagues who were not involved in the research. This type of check occurred with participants using my early interpretations of the FG data. Prior to the follow up interviews, a brief oral account of my interpretation of the key issues from the FGs were presented to two participants from each FG, before inviting them for their verbal feedback. This was a way of checking whether I had achieved a balance between the voices of the participants and my interpretation of their contribution to ensure that I was representing their experiences as far as possible. In addition, extracts of the interview data were explored with my supervisor and a fellow student in order to challenge my interpretation. Using the process of member checking in these ways allowed me to examine whether I had developed a sufficient

'understanding of the phenomenon investigated' (Roulston, 2010: 205), which can improve the adequacy of data interpretation (Williams and Morrow, 2009) helping to increase the trustworthiness of the research (Cousin, 2009).

In the findings chapter, I aimed to present a balance of my interpretations of the data and quotes made by the participants to ensure that my interpretations were grounded in the experiences of the participants. Ensuring there is a balance in this way can assist the clear communication and applicability of research findings and increase the trustworthiness of qualitative research (Williams and Morrow, 2009). However, this process was quite challenging as I was aware of my own subjectivity when selecting material to present in the findings chapter. I found that keeping diary reflections supported me to stay tuned in with my own perspective, helping to keep my perceptions separate from the views of the participants.

The Practice of Reflexivity

Through practising reflexivity, I endeavoured to explicitly acknowledge data that was not consistent with my assumptions. Researchers should try to be reflexive to guard against seeing only what they want to see (Cousin, 2009) to ensure they consider alternative explanations of the phenomena being researched (Robson, 2002). As the research focus was situated around an aspect of my practice, I prepared myself to examine my own practice, and at times this was uncomfortable and unsettling to me. However, using my diary to note reflections before and after each interview and during the analysis of data, helped me, to some extent, to guard against searching for findings that aligned with my assumptions. This close examination also mitigated against the potential for me to close my eyes to undesirable findings in relation to my own practice. Being conscious of my assumptions helped me to mitigate against searching for data that confirmed them, thus reducing my influence on the research. Through demonstrating reflexivity and giving thought to their positionality, and the effect this may have on the conduct and reporting of research (Morrow, 2005, Cousin, 2009), researchers can increase trustworthiness in interpretive research. By reflecting about myself from a 'subjective perspective' (Cunliffe, 2004: 418) by using my diary, I understood more clearly how my identity and positionality impacted on my thoughts and actions as a researcher.

Audit Trail

To further improve the analysis task and to deepen confidence in my findings, a record of all activities carried out during the research was kept (Miles and Huberman, 1994) as audit trails can help to improve the trustworthiness of case studies (Bassey, 1999). An extract of the audit trail is included in Appendix 5.

Data Triangulation

Multiple methods of data collection were employed to explore the main research issues with the participants. One benefit of using multiple methods is that rich data and description can be achieved (Chadderton and Torrance, 2011), which is an important aspect for assessing the quality of research (Donmoyer, 2000). As well as providing a detailed description of the research context, a conscious effort was made to present the findings as a descriptive narrative which provided a detailed analysis of the data, which can stimulate the reflection of the reader (Stake, 1995). Employing data triangulation in my research also helped to reduce the threat of researcher and respondent bias, thus enhancing 'the rigour of the research' (Robson, 2002: 174, Stringer, 2008).

Ethical Framework

Ethical practice demands that researchers state where they are positioned regarding their research (Bathmaker and Harnett, 2010), and the trustworthiness of research can be enhanced when researcher reflexivity is embedded into an ethical framework (Cousin, 2009). As previously discussed, I endeavoured to be reflexive about my own position in relation to my research. As a practitioner researcher, I am committed to understanding ways of developing e-learning communities for primary school teachers engaging with PG study to maximize their learning and practice development. However, I acknowledge that my previous professional experiences have led me to believe that building effective, meaningful online communities is challenging. For this reason, I have personally questioned the notion of online communities in terms of supporting teachers to engage in valuable critical discussion. In my experience, students often seem reluctant to engage with online discussions through BB. This potential bias was acknowledged from the outset and consideration given to the fact that my positionality was potentially entwined with my purpose (Clough and Nutbrown, 2012). Through

acknowledging my implicit assumptions, I was able to set these apart through using my diary to record my ongoing reflections, which is a valuable way of increasing researcher reflexivity (Morrow, 2005). Furthermore, I made every effort to be as open as possible when listening to the views of the participants.

Gaining Ethical Approval

Prior to the commencement of the research, permission was granted from my employing institution to undertake this research (See Appendix 1.1 for Letter of Permission) and full ethical approval was granted from the Ethics Committee at The University of Central Lancashire (UCLan) (See Appendix 1.2). The University guidelines for UCLan were closely followed, as well as the British Educational Research Association (BERA) ethical guidelines (2011) ensuring that participants gave voluntary informed consent and had the right to withdraw (See Appendices 1.4 and 1.6 for Participant Information Sheets and Appendices 1.5 and 1.7 for Research Consent Forms). As a practitioner researcher, I was aware that I would be drawing upon the trust of colleagues and students and as such, sensitivity, concern and respect were shown to participants by fully informing them about the research and giving clear reasons for undertaking the project (Costley et al., 2010). Furthermore, no incentives were used, or detriment caused, and confidentiality and anonymity were assured. I closely followed the ethical procedures outlined in the consent form that each participant received.

Careful thought was given to my dual role as tutor and researcher, as advised by the BERA ethical guidelines (2011), and the impact this could potentially have on participants (Atkins and Wallace, 2012). One particular concern for me was the potential power imbalance between me and the participants in my dual role. For instance, I was aware that my role could be perceived as holding a substantial amount of power since I was tutor to some of the students. Giving prior thought to potential power issues is advised by many authors when discussing forms of insider research (Costley et al., 2010, McAteer, 2013). I made a conscious effort to use my diary to reflect upon my position and my relationship with the participants to protect their interests whilst undertaking my research project. Drawing on reflexivity in this way can be a useful conceptual tool for understanding how to deal with 'everyday ethical issues that arise in the doing' of qualitative research (Guillemin and Gillam, 2004: 263). The following discussion reflects

the efforts I made to consider the potential power imbalance between myself and the participants.

Steps were taken to assure students at the outset that their involvement would have no bearing on their assessment outcomes, and this was clearly stated on both the recruitment email and participant information sheet. As such, I believe that I acted in a way that demonstrated my intention to protect the participants.

To build good relationships with the participants, I took care to share clear study aims with them, and I endeavored to be reliable in my actions at all times to demonstrate that I valued their contribution to my research, as discussed by Robson (2002). At each stage of the research, I posed reflective questions for myself such as 'Is this action ethical?' and 'Am I being honest and respectful of others?' as advised by Atkins and Wallace (2012), as researchers should think through the ethics of different situations for the sake of the participants (Stake, 1995). In this way I made a conscious effort to take responsibility for my actions and their consequences, which Ellis (2007: 3) discusses is an important part of 'relational ethics'. Relational ethics requires researchers to act from their 'hearts and minds' to deal with ethical situations that might be outside of the procedures specified by ethics committees (Ellis, 2007). As such, I endeavoured to develop 'an ethic of care' whereby I tried to imagine the impact of the research at every stage so that empathy determined my actions, as discussed by Costley et al. (2010: 43).

For example, at the stage of conducting interviews with students, I considered the potential 'power asymmetry' between myself as the interviewer and the interviewee (Kvale and Brinkmann, 2009: 33), during the interview conversations. I endeavoured to listen carefully to the participants' responses without interrupting them unnecessarily, to reduce my influence on their contribution and to guard against me ruling the interview, which is another potential power dynamic in interviews (Costley et al., 2010). As previously discussed, I was aware that I had determined the subject matter and created the questions, therefore during the interviews, I made a conscious effort to give particpants the space to freely share their experiences without me quietening their contribution. Participants were also invited to review and amend their interview transcript. To avoid me interpreting what the interviewee said in terms of my own

chosen theoretical framework, which is another potential power dynamic in interviews (Costley et al., 2010), I explicitly searched for, and noted findings that were contradictory to my assumptions, and I kept these in my diary.

Prior to carrying out the research, there were several other ethical issues related to my position which needed to be considered. As a practitioner researcher, I considered myself to be an integral part of the context in which this study was undertaken. For example, I already had close working relationships with the tutor team developed over several years. My position meant that I had relatively easy access to the students who were part of the context, which is often a presumed benefit of being an insider researcher (Mercer, 2007). Whilst holding this type of position can pose several challenges (Mercer, 2007), I believe that my level of insiderness within my research, including my detailed knowledge of my setting, was a benefit in terms of me better understanding the experiences of the students and tutors involved. For example, I was able to recognise some of the experiences of the tutors and students as I had experienced them myself, which helped the flow of conversation. There was also less need for them to explain certain concepts which were specifically related to the programme.

Importantly, when interviewing my colleagues, I tried to ensure that I did not, either consciously or unconsciously, use good working relationships to 'glean unguarded confidences' (Costley et al., 2010: 41). Over the years, I have developed strong relationships with colleagues, which has been reported as a benefit in terms of enriching research findings (Davidson, 2004 in Costley et al., 2010). However, Costley et al. (2010) advise that carelessness in this regard could affect revelations that could harm everyone involved. Kvale and Brinkmann (2009) suggest that the closeness of qualitative interviews can lead participants to reveal information they later wished they had not shared. Therefore, I tried to maintain a professional distance between myself and the interviewee. For example, I tried hard to listen to them without commenting and/or getting drawn into informal professional conversations regarding the BBDBs. Furthermore, all the tutors checked and amended their contribution to the interview data which helped to address this potential issue.

All the information and data collected as part of this study were kept in a clear and accurate manner. The primary data was stored electronically on the UCLan University server (which is protected and secure) throughout the research and it will be stored in this way for up to 5 years after the completion of this project. Student names were anonymised in the primary data files to ensure that the identification of names was prevented.

Atkins and Wallace (2012) insist that an ethical approach should underpin the whole process of educational research and great care must be taken when the objects of enquiry are human beings (Denzin and Lincoln, 2011). Through generating the ethical framework presented above, I showed respect for the human beings involved (Bassey, 1999) and conducted my research in a thoughtful way.

Chapter Summary

In this chapter, I have articulated the ontological and epistemological stances that influenced this research, as well as explaining about the chosen methodological approach of case study and the data collection methods utilised. I have also presented the ethical framework which underpinned this research. The following chapter explains about my approach to data analysis.

CHAPTER 4: DATA ANALYSIS

Approach to Data Analysis

The data collection generated 20 student interview transcripts, two FG transcripts and three tutor interview transcripts, all of which yielded qualitative data. Data Analysis (DA) approaches should align with the design of the methodology (Lee, 2009), as DA is an integral part of the overall design of research studies (Coffey and Atkinson, 1996). As my chosen methodology and methods leaned towards understanding the subjective experiences of the participants, selecting a qualitative approach to DA was appropriate as it enabled me to understand events as experienced by the people involved (Vaismoradi et al., 2013). As I was concerned with the intricacy of the development of online communities, I chose thematic analysis (TA) to explore the relationships between the complex issues captured in the data.

TA is a flexible approach in the sense that it can be applied in a range of theoretical frameworks and used with a range of data collection methods (Clarke and Braun, 2013). TA aligned with my interpretivist approach and also fitted well with the use of multiple methods, which produced a great deal of rich data about the case study. TA is suitable for answering a wide range of research questions (Clarke and Braun, 2013), in particular open-ended questions regarding people's thoughts and actions (Vaismoradi et al., 2013), which fitted with the nature of my research questions.

TA allows researchers to search for, identify and capture themes and patterns across a data set (Braun and Clarke, 2006), as well as permitting them to both describe and interpret data for meaning (Roberts et al., 2019), which was appropriate given that I was attempting to understand the participants' perceptions regarding a specific issue across an educational programme. Furthermore, TA offered a practicable approach to analysing the data gleaned, whilst offering me the chance to capture complexities in the data.

Many qualitative DA methods such as grounded theory (GT) involve thematic coding of some kind (Braun and Clarke, 2013). There are similarities between GT and TA in the sense that both methods are driven by the data to develop themes from the bottom up,

however, grounded theory starts from little else apart from the data (Cohen et al., 2007). Whilst my DA was driven by the data, my research focus has been studied extensively over the years and I considered the literature throughout the research process. In this sense, grounded theory would not have fitted the situation being researched (Lincoln and Guba, 1985 cited in Cohen et al., 2007).

As my intention was to explore the participants' experiences, narrative analysis (NA) might also have been appropriate as this method focuses on the construction of individual narratives (Spencer et al., 2014), which can support researchers to understand the experiences of others. However, whilst I aimed to understand the participants' experiences, exploring the creation of individual stories using NA would not have been as useful as TA as my research was focused on different perspectives of a particular phenomenon rather than focusing on individual perspectives. Through searching for themes and patterns regarding my research focus, TA allowed me to explore and draw together the similarities and differences in the participants' subjective experiences (Crowe et al., 2015) to produce a nuanced and detailed account of the data (Vaismoradi et al., 2013), which was an appropriate way of answering my research questions.

TA can summarise the main features of sizable data sets (Braun and Clarke, 2006, Nowell et al., 2017), which was a useful feature of the approach as a substantial amount of data had been gathered. However, one challenge of TA was drawing together the large number of codes and themes generated from the interviews and FGs in a cohesive way. As well as using my research diary, I drew from the support of my peers on the EdD programme through sharing and discussing the data with them, which was worthwhile.

As my research was exploratory in nature my approach to TA was inductive, aiming to be driven by the data itself rather than my preconceived ideas about the research. However, I was aware that researchers often struggle to detach themselves from their epistemological assumptions even when they hope to be guided by the data (Braun and Clarke, 2006). Therefore, to engage critically with the data, I endeavoured to be consciously aware of my own personal assumptions through capturing my reflections about the data in my diary throughout the DA process, as demonstrated later in this chapter.

Limitations of Thematic Analysis

One limitation of TA is that there is a lack of substantial literature about the approach compared to other types of DA, and this issue can lead to novice researchers feeling unsure of how to rigorously conduct TA (Nowell et al., 2017). Furthermore, many articles fail to include a detailed outline of the process of TA, which can make it difficult for researchers to fully understand the method (Roberts et al., 2019). However, TA can provide a well-defined and straightforward structure (Clarke and Braun, 2013, Vaismoradi et al., 2013) which I found to be an advantage of TA. Another potential limitation is that TA is sometimes seen as lacking in depth in comparison to other approaches such as GT (Attride-Stirling, 2001). TA can also have restrictive power especially if analysis fails to go beyond the descriptions of participants' viewpoints to examine underlying concepts (Braun and Clarke, 2013). Therefore, I consciously made an effort to examine 'latent' or underlying meanings in the data when conducting the analysis, as well as capturing semantic meanings which usually mirror the concepts and language used by the participants (Braun and Clarke, 2013).

The following section describes the practical approach I took to TA based upon the work of Braun and Clarke (2006) who developed clear guidelines for researchers to conduct TA in both a flexible and rigorous way. Through presenting a comprehensive outline of how I undertook each stage of the analytic process, this thesis offers a detailed account of my findings.

On a practical level, I approached the analysis by following the steps presented below:

a) Transcription and Familiarisation with the Data

b) Generating Initial Codes

c) Identifying, Reviewing, Defining and Naming Themes

d) Visual Display of Codes and Themes

e) The Creation of a Thematic Map

f) NVivo Analysis[4]

The following section provides a detailed description of each stage.

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[4] NVivo is a software program designed to support researchers with qualitative DA, including helping them to manage their data and their ideas about their data, as well as supporting them to report their data (Bazeley, 2007).

a) Transcription and Familiarisation with the Data.

Each interview was transcribed verbatim. I initially read each transcript to begin to immerse myself in the data whilst recording my early ideas about it. Immersing oneself in data involves repeatedly reading it 'in an active way searching for meanings and patterns' (Nowell et al., 2017: 5). I made notes of issues that seemed to be associated with my research focus at this stage, which marks the start of the actual analysis of data (Nowell et al., 2017). One particular idea that seemed interesting, based on my early reading of the data from the first few student interviews, was my observation that students had communicated with other students they met at face-to-face sessions through online platforms outside of the BB area. As a result of reflecting on this observation in my audit trail (see Appendix 5), the question 'Did you communicate with people from the course in any other way, for example through private emails? If so, could you tell me more about that?' was included in the interview schedule from this point onwards. The inclusion of this question was important as it allowed me to explore whether other students had shared the same experiences in this regard, as well as examining the reasons why other online platforms might have been used and what they might have been used for. As my research aimed to understand people's engagement with e-learning communities, this additional question seemed pertinent to my research focus.

b) Generating Initial Codes

The coding phase of TA involves the researcher producing initial codes from the data based on their reengagement with it (Nowell et al., 2017). During the next reading of each transcript I made notes of pertinent issues on the right-hand side margin of each transcript and started to develop codes. Coding has been described as allocating 'tags or labels' to relevant concepts in sections of text to help to explore, organise and categorise data (Coffey and Atkinson, 1996: 26, Robson, 2002). Codes can help to give meaning to the 'descriptive or inferential information' gleaned during data collection (Miles and Huberman, 1994: 56). I created codes when particular issues of interest were noted or when I noticed 'recurring items' (Bell and Waters, 2014: 195) in the data. For example, I noticed several comments were made about interaction with others in face-to-face sessions being 'easier' and 'quicker' whereas interaction through the BBDBs was

described as being 'stilted' and 'slow'. Reflecting on these issues led to the creation of the code 'Conversation and Discussion'.

To explore the active role I played in creating codes and themes, I used my diary to practise reflexivity to examine how my personal assumptions, experiences and values might influence my interpretation of the data. My own experiences of engaging with online forums have led me to believe that online communication is more challenging than spoken communication. I have also experienced feelings of anxiety when posting text-based comments onto online forums. Exposing these feelings and making my assumptions explicit allowed me to guard against searching for evidence that confirmed my assumptions, as highlighted in the diary extract below:

> *Diary Extract*   *January 2017*
> *Reading the interview transcripts has highlighted to me that most students have experienced feelings of anxiety when engaging with the BBDBs. They have used words like 'nervous', 'worried' and 'uncomfortable' when describing their experiences of the BBDBs, which has influenced me to create the codes named 'Feeling Intimidated' and 'Feeling Anxious'. However, I am concerned that my own previous negative experiences of engaging with online forums (and my own experiences of feeling slightly anxious when doing so) might be influencing the way I am reading the data… Am I subconsciously searching for evidence that I can personally relate to? Have I overlooked evidence that doesn't resonate with my personal feelings about online forums? Do I need to go back through the scripts to actively check whether students have said more positive things about their engagement with the BBDBs?*

These reflections prompted me to check my interpretation of the data. They also encouraged me to actively search for data that was contrary to my own assumptions, as shown in the diary extract below:

> *Diary Extract*   *February 2017*
> *From engaging with the transcripts again, I feel more confident that my own assumptions and feelings have not swayed my interpretation of the data (or my creation of the theme 'Feelings'). The issue of experiencing negative emotions in relation to engaging with the BBDBs is definitely a recurring matter that has been explicitly discussed by most students interviewed up to this point. However, students have also discussed their engagement with other online platforms in more positive ways and I need to ensure that I am equally focused on these revelations. It does surprise me that so many students have used other online platforms to create their own private*

groups. I'm not sure why I am so surprised by this. Perhaps it is because this is not something I have personally been involved with? Whatever the reason, I need to ensure that I do not overlook the positive experiences reported by the students regarding the way they have used other online platforms to create their own private online communities.

These journal entries are just two examples from the journal I kept throughout the research, which proved a useful tool for practising reflexivity. In this way, practising reflexivity supported me to interpret the data in an open and honest way.

In relation to the development of codes, I chose codes names that helped to capture the meaning of the issue noted. For example, the code named 'Building Relationships' was based on students' reports that they highly valued opportunities to talk with colleagues and get reassurance from others at face-to-face sessions. The code name of 'Building Relationships' could be described as a 'data-derived' code (Braun and Clarke, 2013: 207) which captures semantic meaning (i.e. meaning which mirrors the participants' language) as several students explicitly used similar language to the term 'building relationships' with others through face-to-face interaction. As well as creating codes that were driven by the data, I also generated codes that went beyond 'the explicit content of the data' (Braun and Clarke, 2013: 207).

Latent codes and meanings are the 'ideas, assumptions or concepts that underpin what is explicitly stated in the data' (Braun and Clarke, 2013: 332). An example of a code created in my DA that carried implicit meaning was 'Agency'. The code 'Agency' was a name that captured my interpretation of the observation that several students had chosen to communicate through platforms outside of the BB area. The term agency was not explicitly used by the participants, rather this code was my interpretation of the implicit meaning of the situation regarding participants making their own free choices about the way they communicated with other students. The code 'Agency' was also underpinned by my engagement with the work of Archer (2000) who discussed how human beings can be active shapers of their social context through reflecting on it and then acting reflexively to redesign their social environment. The code 'Agency' could be described as a 'researcher-derived code' (Braun and Clarke, 2013: 207) as it was driven, in part, by my engagement with theory, and it captures the implicit ideas that underpin what was explicitly stated in the data.

To ensure that the DA was carried out in a systematic way, I applied this coding approach consistently to each data set from both student and tutors.

c)   Identifying, Reviewing, Defining and Naming Themes

The next stage was to identify themes from the codes created from the data, which is the third stage of Braun and Clarke's (2006) approach to TA. This stage was more interpretive in the sense that it involved me reflecting deeply about how codes connected with each other to form overarching themes. Thinking about codes in this way can help researchers to create 'categories of data' which are derived from linking together different segments of data which can be defined as themes (Coffey and Atkinson, 1996). I approached this stage of the analysis by posing the following questions:

- What issues are emerging and how should these issues be interpreted?
- How are these issues connected to other issues that are surfacing?
- How do these issues relate to my research focus?

I consciously tried to apply a questioning approach to go deeper than the surface level (Silverman, 2011), to search for themes that connected with other themes as well as potentially linking to my research questions, as themes in TA should contain something fundamental to the research questions (Braun and Clarke, 2006). During the next reading of the data, potential themes were noted on the left-hand side margin of each transcript. I approached this stage systematically by making diary notes to identify where the codes seemed to be connected to each other, filtering the data to search for themes related to my research focus. For example, the codes named 'Building Relationships' (which related to students' reports that they had built lasting relationships with others at face-to-face sessions and through Facebook) and the code 'Feeling Comfortable' (which related to students' reports that they felt comfortable when talking face-to-face with others in a small group) seemed to suggest that having contact with other people was important; therefore the overarching theme 'Being Human' was created.

Some of the questions I posed for myself at this stage in relation to the data were: 'To what extent does the apparent reluctance of some students to engage with the BBDBs link to their confidence with technology?, 'Why do some students report feeling less comfortable with online communication through the BBBDs and more comfortable with face-to-face communication?' Posing such questions helped me to think about how the themes linked together which can be a good starting point for building theory from qualitative data (Coffey and Atkinson, 1996). Thinking in a questioning way can also help researchers to think beyond 'explicit' meanings in the data to identify more 'implicit' meanings (Braun and Clarke, 2013: 252). These reflections also prompted me to think back to my research questions. For example, from thinking more deeply about the questions mentioned above and the overarching theme of 'Technology', I reflected that these issues seemed pertinent to the research question 'What are the factors that discourage students from actively engaging in an e-learning community?'. For instance, I questioned whether the reluctance of the participants to actively engage with others through BBDBs was related to their apparent dislike of the permanent nature of posts.

The list of codes and themes was constantly reviewed, and it developed further as each data set was analysed. This process was documented in my diary (see page 106 for the final list of codes and themes from the student data). This process of DA was repeated for the tutor data (see page 109 for the final list of codes and themes from the tutor data).

d) Visual Display of Codes and Themes.
Once the codes and themes from the first set of interviews and the first FG had been generated, I took an extra step to Braun and Clarke's (2013) stages and created a summary and display of the data, as discussed by Spencer et al. (2014). Codes were presented under the two columns 'Online Learning' and 'Face-to-face Learning'. As the participants had reported on their experiences of a blended learning course which combined online with face-to-face delivery, it was important to examine the data in relation to both these elements to fully understand the factors that might impact on students' engagement with online communities. Giving thought to the differentiation between learning platforms in this way allowed me to examine any differences between the participants' perceptions about their engagement with these two modes of learning.

The visual display included pertinent extracts of data associated with each code to aid my thinking, helping me to stay closer to the data. Creating visual displays and presenting information in a systematic way can encourage researchers to explore themes in the data (Miles and Huberman, 1994). Furthermore, presenting a 'clear trail of evidence' through creating records that capture codes and themes along with definitions and exemplar text can increase the credibility of research (Nowell et al., 2017: 7).

This process was repeated for both student and tutor data. Below is a short extract of the matrix display of the codes and themes generated from my early analysis of the student data (see Appendix 3 for Visual Display of Codes and Themes From Tutor Data):

	ONLINE LEARNING		FACE-TO-FACE LEARNING	
BROADER THEME	CODE	ISSUES NOTED	CODE	ISSUES NOTED
BEING HUMAN	BUILDING RELATIONSHIPS	'Facebook has allowed me to build lasting relationships'.	BUILDING RELATIONSHIPS	'The human element of face-to-face days is important'.
	FEELING SECURE AND COMFORTABLE	'I find it (the BBDBs) a little bit intimidating'. '…with social media I feel a bit more comfortable'.	FEELING SECURE AND COMFORTABLE	'…I felt more comfortable with asking questions because you have built up that sort of, I guess, almost like friendship…'
	PERSONALITY	'My personality and not being	PERSONALITY	'I am more of a face-to-face person; I talk to

		into social media stops me posting'.		*people that is just the way I am'.*

Table 3: Visual Display of Codes and Themes from Student Data

Table 3 provided a representation that enabled me to visualise the data, helping me to see patterns and to think of them in a more interpretive way. For example, I noticed that Facebook had been used by some students as a way of maintaining relationships with others. However, this observation was in contrast to students' reports that they had been reluctant to post comments on the BBDBs due to them feeling 'intimidated' by the BBDBs. This observation prompted me to pose the question 'How do students' emotional responses to online communication impact on their engagement levels?' I questioned why some students reported feeling intimdated by the BBDBs yet the majority of students had felt comfortable enough to communicate with others through online platforms outside of the BB area. To further explore the potential connections between the codes and themes, I created a thematic map as discussed below.

d) The Creation of a Thematic Map

The themes and codes which emerged from the first set of individual interviews and the first FG formed the basis of a thematic map which allowed me to visualise how the themes and codes connected to each other and to my research questions. Thematic maps provide an 'overall conceptualisation of the data patterns and relationships between them' (Braun and Clarke, 2006: 89). Braun and Clarke (2006) suggest that all the data appropriate to each probable theme should be drawn together prior to the development of a thematic map. However, as my data gathering and analysis were undertaken concurrently, it seemed appropriate to try to understand the data as I was going along rather than waiting until all the data had been gathered to begin this process. Furthermore, the nature of the Research Analysis and Evaluation module (EH5002) in the EdD programme encouraged me to investigate my chosen analytical tool and develop it purposively for my own research data. Therefore, I created an early thematic map based on my analysis of the student data which informed the direction of

my research as discussed later in this chapter (see Appendix 4 for my early 'Work in Progress' thematic map).

Exploring thematic maps can encourage researchers to map linkages between separate codes (Spencer et al., 2014), and the arrows shown on the work in progress thematic map (see Appendix 4) demonstrate how I interpreted the themes and codes to relate to each other. 'Connection' and 'Being Human' were themes that, to some extent, informed the questions asked in the follow up interviews to the first FG. These themes (and their associated codes) reflected the fact that students had reported highly valuing the opportunities for conversation with other students through face-to-face interaction. These interactions had made students feel connected to others through them feeling reassured, supported and less isolated. In contrast, several students reported feeling uncomfortable to engage with others through the BBDBs. These two themes, combined with the observation that a large majority of students (16 out of 18) interviewed up to this point had created their own private groups through other online platforms, led me to question when students felt either connected to, or isolated from others during the programme, and why this might have been the case. Probing this issue further was pertinent to my research focus, therefore I asked questions designed to elicit specific points during the course when students might have felt connected to, or isolated from others, and what might have been happening to make them feel either connected or isolated. These questions were based on a previous study by Reilly et al. (2012) and were included in the first set of follow up interviews:

Can you think of a specific time during the course when you have felt connected or part of a community? Could you explain about that experience?

Can you think of a specific time during the course when you have felt isolated and/or unknown? Could you please explain about that experience?

The analysis of data from the final FG revealed that the two students involved had supported each other in different ways throughout the entire programme through online platforms outside of the BB area. As highlighted in the diary extract below, I was particularly interested in the ways they had supported each other and how this support had impacted on their learning experience:

Diary Extract   *September 2017*
XX and XX are firm friends who met on the first day and they have supported each other throughout the programme. It seems their course experience has been enriched by this lasting connection. They have kept each other going through giving each other moral and emotional support through what they describe to be 'less formal' communication channels they feel more comfortable using (i.e. text messaging). It would be worthwhile in the follow up interviews to ask them to reflect on specific examples of the support they have given and received. It might also be useful to ask them to reflect on the way they have felt about this mutual support to further explore the place of 'relationships' and 'emotions' in their use of technology when supporting each other.

To probe more deeply about this issue, these students were invited to answer the following questions in the follow up interviews:

Can you talk me through a specific example of when you have provided encouragement and moral support to your colleague (either through online communication or through face-to-face interaction)?

Can you talk me through a specific example of when you have felt moral support and encouragement from your colleague (either through online communication or through face-to-face interaction)?

Can you talk me through an example of when you have supported each other in your learning (either through online communication or through face-to-face interaction)?

Is it possible to reflect about (and explain) the difference (if any) between the way you felt supporting one another online and face-to-face?

Asking the students to reflect on their emotions in this way was particularly important given that the earlier DA had suggested that students' emotions had potentially been an influencing factor in their decision to engage with others in online communities.

e) NVivo Analysis

Once the data had been analysed and the initial themes and codes created, I used NVivo to reacquaint myself with the data. My re-engagement with the data involved me using NVivo to create parent and child nodes using the existing themes and codes derived from the data analysis. A node is a container in NVivo for categories and codes which can represent any concepts that are pertinent to the research (Richards, 1999). The parent nodes were created as the theme names and the child nodes were created as the code names generated from the DA.

Organising the themes and codes in this hierarchical manner allowed me to capture the concepts generated during my DA whilst also being able to retrieve the data which supported those concepts. Reanalysing the data using NVIVO enabled me to review whether the themes, codes and data extracts worked together. I continued to notice pertinent issues from reengaging with the data in this way. For example, when reflecting on the data underpinning the theme named 'Connection' and the code named 'Conversation and Discussion', I noted that several students had reported that it was easier to be honest about one's emotions in face-to-face interaction, which meant that reading and responding to the emotions of others was more likely to happen. As a result, I noted there seemed to be a relationship between different learning platforms and the extent to which students felt they could be honest about their feelings, and the emotional support they could give and receive with others. These reflections resulted in an additional theme named 'Emotional Support' being generated from the student data.

The final list of themes and codes from the analysis of the student data is displayed in Table 4.

Theme	Codes Related to Theme
BEING HUMAN	**Personality** **Building Relationships** **Reassurance from Others** **Presence and Encouragement of Others** **Trust** **Confidence**
CONNECTION	Bonding Experience Conversation and Discussion Sharing Ideas and Information Networking with Others Isolation
FEELINGS	Perceived Pressure Feeling Intimidated

	Feeling Anxious
	Feeling Safe
	Feeling Secure and Comfortable
TECHNOLOGY	Confidence
	Relevance
	Permanence
	Reluctance
	Being judged
	Interpretation
EMOTIONAL SUPPORT	Feeling Understood
	Allies
	Friendship
	Moral Support
	Motivating Each other
	Peer Support
PRIVATE COMMUNICATION	Access
	Notifications
	Prior Experiences
	Familiarity
	Agency
TIME	Convenience and Self Pace
	Access
	Life Pressure
LEARNING	Reflection
	Sharing Practice
	Shared Passion
	Shared Experiences

	Learning Together
	Small Group Work

Table 4: Final List of Themes and Codes from DA of Student Data

At this point the thematic map was updated based on the final analysis of the overall student data. Figure 4 is colour coded to highlight the codes associated with each theme. Given that it was noted that human emotions and relationships seemed to strongly impact on the students' choices regarding their engagement with technology, the theme 'Being Human' was placed at the top of the thematic map as these human aspects seemed to encompass all the other issues noted.

Being Human

Feeling Safe
'Every time we do one of the assignments, we observe each other teaching and we are very honest with each other, I am not at all worried about what I say and equally she's not'.

Feeling Secure and Comfortable
'with social media I feel a bit more comfortable'.

Feeling Anxious
'I felt nervous at first posting'.

Personality
'I think it is just my character as to why I prefer face-to-face learning'.

Isolation
'You feel less isolated at face-to-face sessions'.

Sharing Ideas and Information
'[Facebook] has had a bit of a positive effect just being able to share ideas, share good books and material, links to good sources and resources for class and things like that so Facebook has had more of a positive impact on my learning'.

Conversation and Discussion
'You have read things and you need that one to one back and forth, it is more instant talking to someone isn't it?'
'The discussion on the boards can be quite stilted'.

Feelings

Connection

Perceived Pressure
'I felt pressured to do it' (to post on the BBDBs).

Feeling Intimidated
'I feel really uncomfortable to post' (on the BBDBs).

Building Relationships
'I like the face-to-face sessions; I like the BB area and it is I suppose the building up of your own relationships because that is just the natural thing isn't it?'

Trust
'I got there really early and we just sat and bonded over a cup of coffee! We swapped numbers and we have been in touch ever since!'

Bonding Experience
'It was nice to meet people and you know – get bonded'.

Networking with Others
'We made our own support group. You know where we have met up and organised our own sort of face-to-face'.

Reluctance
'I am quite sort of...I don't know... maybe cynical? But I don't like posting myself out there'.

Being Judged
'You feel a bit... it is a bit sort of 'soul baring' because you might have some views and it is like you are opening yourself up to criticism'

Confidence
'You know you build up that sense of confidence don't you where you can share things and ask questions' (at face to face sessions).

Reassurance from Others
'Face to face days allow you to get reassurance from others'.

Friendship
'You know it is very much about that friendship thing, we get each other, don't we?'

Allies
'We would meet up before the sessions for a few hours to actually catch up with each other so the moral support would come about being allies'.

Technology

Presence and Encouragement of Others
'She was there the whole time encouraging me saying 'Oh just do this', 'You can get through this' and she understood the pressures of the task'.

Feeling Understood
'It is nice that you have got someone going through the same thing as you, somebody who understands what you are going through'.

Emotional Support

Permanence
'I don't know them well enough to shout out my thoughts out loud and then if you have committed it to writing, it is there forever isn't it?'

Interpretation
'You don't know how things are going to be interpreted so a little bit anxious I suppose'.

Moral Support
'Sometimes it is about just having somebody to moan at, someone to listen and someone who is in the same position as you, just to listen'.

Motivating Each Other
'It might have been, 'What have you been reading?' or 'Where are you up to?' to motivate each other'.

Relevance
'I will only post if I feel my contribution is relevant'.

Prior Experiences
'My parents brought me up that you spoke to someone rather than talking over the Internet'.

Familiarity
'I would say I am more comfortable with asking questions because you have built up that sort of, I guess, almost like friendship in a way, or it is developing into a friendship'.

Convenience and Self Pace
'I really look forward to the face-to-face days but I do like the fact that I can just go on and see what have I missed and just work at my own pace I suppose, you know that you are not being pushed on too fast, there is plenty time'.

Notifications
'Providing a notification when somebody has posted something would save people time logging in to check this'.

Agency
'I have got my little group of friends who I sit with and we chat on social media and we share information'.

Small Group Work
'I would say at the face-to-face sessions we have got a small group and we have sat with each other on all the sessions and we are quite friendly now and you get that sense of community'.

Peer Support
Several students worked in pairs from meeting at face-to-face sessions.

Private Communication

Time

Learning Together
'I think hearing from the expert speakers and then getting the chance to share your experiences in small groups with other people who are doing a similar tough job'.

Learning

Life Pressure
'I just haven't got time to juggle it all, so I just have it all in one place and I know that I will regularly check my emails, you know if anyone needs to contact me... that is the way I tend to communicate'.

Access
'it is just way more accessible. Facebook is on my phone all the time, although I have got the University app, it is not something that I draw to very quickly'.
'It takes time to log on to the University system and then BB'.

Reflection
'Reflecting with others (at face-to-face sessions) challenges your own thinking'.

Sharing Practice
'We have shared practice through a Face book group'.

Shared Experiences
'We do all share ideas and things together, so I guess we are a team in that sense as well'.

Shared Passion
'I have enjoyed it because you have got the connection about all being enthusiastic about [our subject]. It is nice to come somewhere where everybody's got that enthusiasm'.

Figure 4: Thematic Map of Overall Analysis of Student Data

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The final list of themes and codes from the analysis of the tutor data is displayed in Table 5.

Theme	Codes Related to Theme
BEING HUMAN	**Personality** **Building Relationships** **Nonverbal communication**
CONNECTION	Conversation and Discussion Peer Support Time to Connect
FEELINGS	Feeling Comfortable Anxiety
TECHNOLOGY	Confidence Access Prior Experiences Permanence Interpretation Reluctance Expectations - Compulsory or Optional
VISBILITY	Being Visible Seeing Learning Happen
TUTOR SUPPORT	Generic Support Personalised Teaching Making a Difference Showing Value Power Dynamic

LEARNING	Reflection
	Relevance
	Learning Together
	Sharing Materials
	Control

Table 5: Final List of Themes and Codes from DA of Tutor Data

Once the data from the tutor interviews had been analysed, a thematic map was created to explore potential connections between codes and themes and to support me to reflect back to my research questions. This information is presented in Figure 5.

Being Human

Anxiety
'I feel a bit uncomfortable about the concreteness (of the BBDBs). I'm probably not as free and relaxed about commenting on them because you feel as though you have got to be so very careful what you put down'.

Feeling Comfortable
'Students seeing each other more might make everybody feel more comfortable'.

Conversation and Discussion
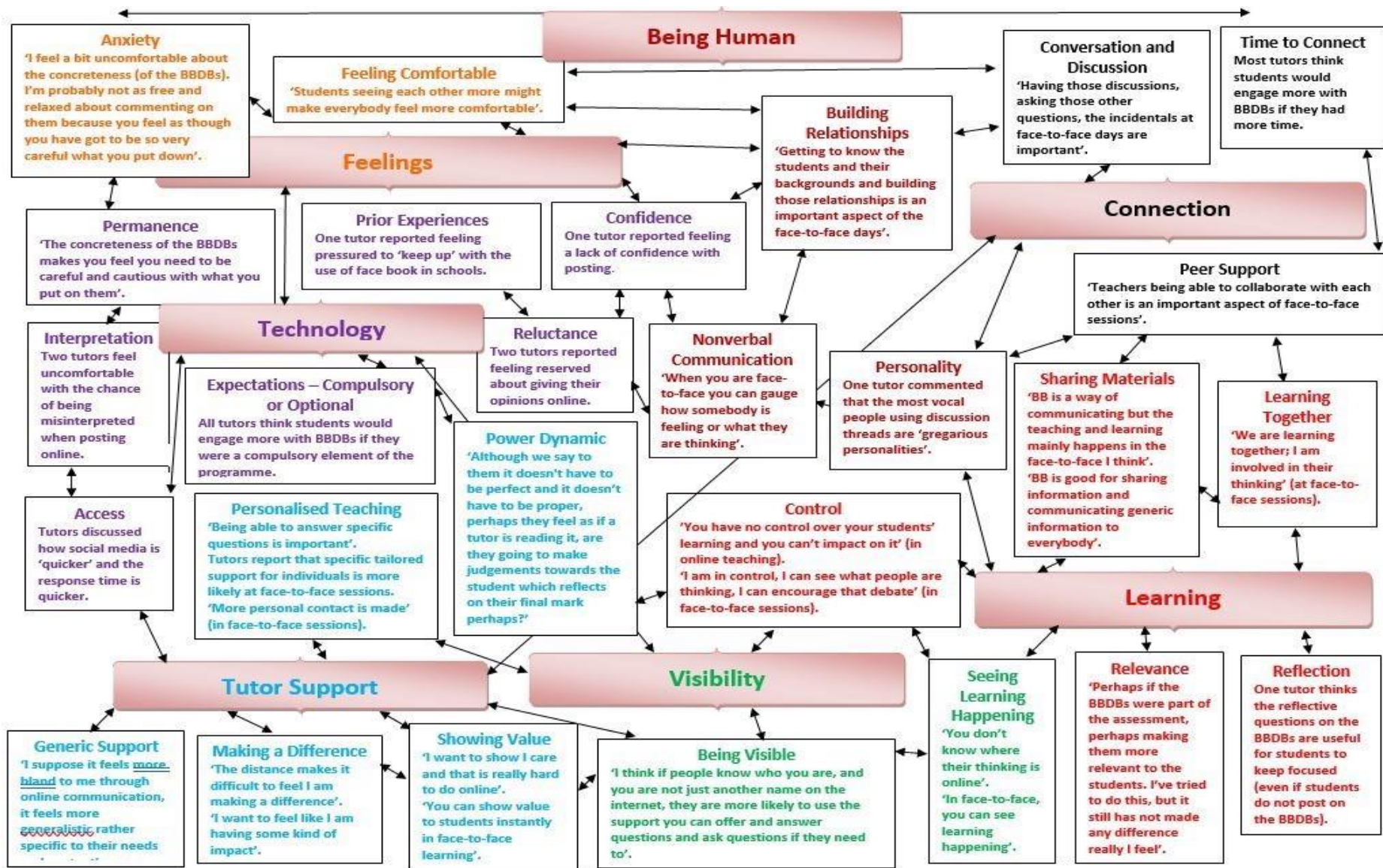'Having those discussions, asking those other questions, the incidentals at face-to-face days are important'.

Time to Connect
Most tutors think students would engage more with BBDBs if they had more time.

Feelings

Building Relationships
'Getting to know the students and their backgrounds and building those relationships is an important aspect of the face-to-face days'.

Connection

Permanence
'The concreteness of the BBDBs makes you feel you need to be careful and cautious with what you put on them'.

Prior Experiences
One tutor reported feeling pressured to 'keep up' with the use of face book in schools.

Confidence
One tutor reported feeling a lack of confidence with posting.

Peer Support
'Teachers being able to collaborate with each other is an important aspect of face-to-face sessions'.

Technology

Interpretation
Two tutors feel uncomfortable with the chance of being misinterpreted when posting online.

Expectations – Compulsory or Optional
All tutors think students would engage more with BBDBs if they were a compulsory element of the programme.

Reluctance
Two tutors reported feeling reserved about giving their opinions online.

Nonverbal Communication
'When you are face-to-face you can gauge how somebody is feeling or what they are thinking'.

Personality
One tutor commented that the most vocal people using discussion threads are 'gregarious personalities'.

Sharing Materials
'BB is a way of communicating but the teaching and learning mainly happens in the face-to-face I think'.
'BB is good for sharing information and communicating generic information to everybody'.

Learning Together
'We are learning together; I am involved in their thinking' (at face-to-face sessions).

Access
Tutors discussed how social media is 'quicker' and the response time is quicker.

Personalised Teaching
'Being able to answer specific questions is important'.
Tutors report that specific tailored support for individuals is more likely at face-to-face sessions.
'More personal contact is made' (in face-to-face sessions).

Power Dynamic
'Although we say to them it doesn't have to be perfect and it doesn't have to be proper, perhaps they feel as if a tutor is reading it, are they going to make judgements towards the student which reflects on their final mark perhaps?'

Control
'You have no control over your students' learning and you can't impact on it' (in online teaching).
'I am in control, I can see what people are thinking, I can encourage that debate' (in face-to-face sessions).

Learning

Tutor Support

Visibility

Seeing Learning Happening
'You don't know where their thinking is online'.
'In face-to-face, you can see learning happening'.

Relevance
'Perhaps if the BBDBs were part of the assessment, perhaps making them more relevant to the students. I've tried to do this, but it still has not made any difference really I feel'.

Reflection
One tutor thinks the reflective questions on the BBDBs are useful for students to keep focused (even if students do not post on the BBDBs).

Generic Support
'I suppose it feels more bland to me through online communication, it feels more generalistic rather specific to their needs

Making a Difference
'The distance makes it difficult to feel I am making a difference'.
'I want to feel like I am having some kind of impact'.

Showing Value
'I want to show I care and that is really hard to do online'.
'You can show value to students instantly in face-to-face learning'.

Being Visible
'I think if people know who you are, and you are not just another name on the internet, they are more likely to use the support you can offer and answer questions and ask questions if they need to'.

Figure 5: Thematic Map of Overall Analysis of Tutor Data

Summary of Data Analysis

This chapter has presented a detailed description of my approach to DA using TA. The next chapter presents my interpretation of the themes and how these connected with other themes as well as presenting pertinent data extracts. The interpretation of the thematic maps for both student and tutor data are discussed in the following chapter.

CHAPTER 5: INTERPRETATION OF THE DATA

Once the final list of themes and the thematic maps had been created for both tutor and student data, the next stage in my DA was to present my interpretation of the themes, as well as articulating how each theme connected to other themes.

Interpretation of Themes from Student Data

I now present and discuss examples of how the main themes were interlinked. Given that most themes seemed to be interconnected through characteristics that are deemed typically human, 'Being Human' was the overarching theme for all other themes and therefore placed at the top of each thematic map. 'Being human' in this study is defined as characteristics associated with the nature of being human and 'the natural ways of behaving that most people share' (Cambridge Dictionary [online] 2019), including shared traits and characteristics such as social communication, relationship building and emotions.

Emotions

Clear definitions of the terms emotion, feeling and affect are difficult to unravel (Frosh, 2011). According to McLead (2007: 171), feeling and emotion are 'bodily signals' that provide information about a person's attitude or action towards a situation or towards another person. Similarly, affect has been described as 'embodied meaning-making' which is generally understood as human emotion (Wetherell, 2012: 4). Whilst both emotion and feeling are sources of meaning and information, it has been argued that there is a clear distinction between the two (McLead, 2007). McLead (2007: 173) suggests that feeling is 'an ever-present inner sensing', whereas emotion 'is an immediate, bodily response to a situation' (McLead, 2007: 171). For example, emotion can usually be identified as one specific thing, such as anger. Similarly, Frosh (2011: 2) distinguishes between our 'emotions' (or what is revealed by our bodily actions) and our inner experience of 'feeling'. Whilst consideration of emotion, feeling and affect highlights the complexity of these concepts, these terms are used interchangeably in my thesis to describe people's feelings and emotions since the participants involved in my research used these terms interchangeably when describing their experiences.

Students made strong links between their own feelings towards technology and their engagement with it. The theme 'Technology' was therefore connected to 'Feelings' as technology was often discussed in terms of the way students felt about their engagement with different types of online platforms. Engagement with the BBDBs was construed as being effortful both in relation to the time needed to communicate with others and in terms of the negative emotional reaction that it evoked for many students. Students used language which demonstrated anxiety when discussing the BBDBs as highlighted in the comments below:

> *'I really have a fear of discussion boards'. (Student 17)*
> *'I find them threatening'. (Student 16)*
> *'I think I was quite nervous to start with; it is a little bit nerve wracking'. (Student 6)*
> *'I felt pressured to do it (post online), it was really out of my comfort zone'. (Student 9)*

Fears of being misinterpreted or judged by others led to negative emotional reactions which resulted in students feeling apprehensive and disinclined to post comments on the BBDBs. The concrete and permanent nature of the posts on the BBDBs added to this anxiety, as well as students not always knowing who they were posting their comments to. One student commented: *'I don't know them well enough to shout out my thoughts out loud and then if you have committed it to writing, it is there forever isn't it?' (Student 13).*

The theme 'Feelings' reflects the range of emotions students experienced when engaging with others through different platforms. In contrast to the reported negative emotional reactions to the BBDBs, students reported positive feelings of enjoyment, reassurance and security through the early bonds they made with others through meeting at face-to-face sessions. Through their shared experiences of reflecting together in small groups and having a shared passion for their subject, students bonded closely with others and experienced a sense of community:

> *'I got there really early, and we just sat and bonded over a cup of coffee! We swapped numbers and we have been in touch ever since!' (Student 20)*

'…you get chance to share your experiences in small groups with other people who are doing a similar tough job as yourself'. (Student 5)

'I have enjoyed it because you have got the connection about all being enthusiastic about our subject. It is nice to come somewhere where everybody's got that enthusiasm'. (Student 16)

'I would say at the face-to-face sessions we have got a small group and we have sat with each other at all the sessions and we are quite friendly now and you get that sense of community'. (Student 13)

These extracts demonstrate that the connections made through face-to-face interaction helped students to feel securely joined to others in a way that did not occur through the BBDBs. Another student commented that '*Face-to-face days allow you to get reassurance from others'*, suggesting that being in the physical presence of others offered a sense of comfort which built up trust between people, which encouraged them to connect through other online platforms such as Facebook. In this way, 'Technology' linked to the themes 'Connection' and 'Private Communication'.

Connection and Relationship Development

The theme 'Connection' captures the way students made relationships and links with others in different ways through communication both in relation to face-to-face and online interaction.

There was a distinct contrast between student perspectives about the BBDBs and face-to-face communication as ways of connecting with others. For instance, one student commented *'The discussion on the boards can be quite stilted'* which implies that these were experienced as an unnatural and overly formal way of connecting with others. In comparison, communication through face-to-face interaction was described as '*instant, quick, real time conversation*' and seemingly viewed as more natural than through written communication through the BBDBs as illustrated in the extract below:

'I think with (face-to-face) discussion you can alter your discussion, your content as the discussion progresses. So if we are having a discussion here, in my head I am rationally thinking well they have said that, well my view is this and then you do alter the discussion that you give to people whereas on a discussion board, you feel very vulnerable because you are putting

everything out there and then you can't alter it and people are commenting on that initial view, whereas subconsciously sitting here we are all making slight adjustments to our thoughts and then you feel more comfortable sharing'. (Extract from FG 1 – Student 14)

The comment above suggests that face-to-face conversation flowed more smoothly than discussion through the BBDBs, stimulating people to think more quickly and feel more comfortable with regards to sharing their thoughts and feelings. In comparison, communication through the BBDBs was perceived as worrying, with written communication viewed as more difficult to articulate than the spoken word. Communication through the BBDBs was also described as taking up more time than communication through the spoken word. For example, one student commented *'It takes time to create a post that says what you actually mean'* whilst another student commented *'I feel like I am wasting people's time posting a message'* which implies that communication through the BBDBs is generally viewed as less valuable than speaking with others through face-to-face interaction. Communication through the BBDBs was also described as being 'slow' in terms of the time required to log into the system in comparison to the ease of access described for other online platforms, therefore the theme 'Connection' linked to the theme of 'Time'. One student commented *'It takes time to log on to the University system and then BB'.* Furthermore, communication through the BBDBs was seen as rigid and unalterable which generated feelings of discomfort.

One student recognised, and expressed frustration that people were not communicating in the same way through the BBDBs as through face-to-face interaction:

'On the face-to-face days everyone was chatting and getting on and it didn't seem to then reflect how the discussion boards were going. You know I appreciate that some people don't like that kind of thing, but it would have been nice to see maybe a few more people on there'. (Student 4)

Students viewed these differences as either a driver or barrier to their relationship development with others. For example, one student commented '*BB is not good for networking with others'*. In contrast, students reflected on the friendships they had made through time spent with others at face-to-face sessions as highlighted below:

'The HEI days would not have worked online because it is about the interaction. In the early stages we could try ideas out and it was almost a bonding experience because they were doing the same things in their school that you were doing in your school. There are people that I am still in touch with that I met on the programme six years ago; we are still good friends and we are still supporting each other through our practice. So you are making those professional connections through just being able to have those face-to-face discussions. Like I said before that is more supportive and more valuable than an email'. (Student 10)

The comment above implies that early face-to-face interaction was fundamental to the strong bonds and enduring relationships that developed between students. Another student commented *'I like the face-to-face sessions; I like the BB area and it is I suppose the building up of your own relationships because that is just the natural thing isn't it?'* The reasoning informing a comment like this is that relationships developed naturally between people as a result of them being together physically. By increasing their trust of other people, most students were motivated to further engage and share their experiences with others, as illustrated in the comment *'You build up that sense of confidence don't you where you can share things and ask questions'.*

The increased levels of trust, familiarity and connection that developed between students during face-to-face sessions linked into the theme of 'Private Communication' which encapsulates the different ways students chose to communicate with others outside of the BB area. Whilst communication through the BBDBs was viewed as a barrier to relationship development in many cases, the use of Facebook was viewed as a way of building and maintaining relationships with others as illustrated in the comment below:

'In the early days of the programme I was in a Facebook group and we used that group to bounce ideas off each other and to send each other articles. I am still Facebook friends with people I did the course with and I have maintained those relationships. I think with Blackboard that would not have happened in the same way'. (Student 10)

Informal Online Platforms

Most students chose not to use the BBDBs and instead instigated the creation of their own groups as illustrated in the following comment:

'I have got my little group of friends who I sit with and we chat on social media and we share information'. (Student 13)

Students chose to use these platforms because they were familiar and comfortable with them and because they were easy to access. Students also valued the quick communication speed these platforms offered in comparison to the BBDBs as shown in the comment below:

'You get a notification (with Facebook) when somebody has commented on something and it is tied into something you are already doing. Whereas with Blackboard it is like 'Go and log into Blackboard, oh I have logged out, oh my password has changed, right let's get into here and look at the discussion threads, oh only one person has responded and that is my tutor'. (Student 10)

Communication through the BBDBs was viewed less favourably than communication through social media platforms. Through their private communication, small groups of students offered each other mutual assistance through a combination of professional, personal and emotional support. The conversation below highlights the way two students supported each other through personal email communication and text messaging:

'Our discussions are often much more personal stuff than anything related to the course. I know that my colleague contacts you (tutor) and has email conversations and it is about the work whereas ours will be something to do with family and weddings.' (Student 19)

'It is very much that friendship thing, we get each other through, don't we? Because we say, 'Come on!' and especially during assignment time, we text a lot and it's like 'Come on we are meeting the deadline, we are going to do this!' (Student 20)

The theme 'Emotional Support' signalled the sense of comradeship many students felt, including a feeling of 'being in this together' through their shared understanding of the difficult nature of the course. The comments presented below highlight the significance of the reciprocal support shared by students through online platforms outside of BB:

'Sometimes it is about just having somebody to moan at, someone to listen and someone who is in the same position as you, just to listen. She was

there the whole time encouraging me saying 'Just do this', 'You can get through this'. (Student 19)

'It is nice that you have got someone going through the same thing as you, somebody who understands what you are going through'. (Student 6)

'Me and X have kept each other going!' (Student 8)

Through using communication platforms such as private emails, Facebook and text messaging, students benefitted from a strong level of moral and emotional support. Using such platforms seemed to increase and deepen the relationships between students. Through maintaining private connections with others, students were spurred on to work collaboratively. One student commented: *'We would meet up before the sessions for a few hours to actually catch up with each other so the moral support would come about us being allies'*. Students highly benefitted from the emotional support shared in the private groups which seemed to positively impact on the student learning experience, therefore 'Emotional Support' was linked to the theme 'Learning'. As highlighted in the extract below, the mutual support and understanding between students provided them with the motivation to persist with the course:

'She knew exactly what the assignment was so she would say to me 'get this part done and then you can focus on that', whereas with my family and colleagues it was just, 'Oh you will pass - just do it'. She understood exactly what the pressures of the task were as well as being able to give me specifics about it. She could give me the support I needed rather than people just telling me 'Oh you're alright, you can do it' so… that is quite important'. (Student 19)

The encouraging and supportive interactions described above helped the student to deal with their anxiety surrounding difficult aspects of the course, giving them the boost they needed to carry on. Through using their private groups to communicate on a regular basis, students offered each other ongoing support during difficult times in their personal lives. Emotional support was highly valued in the sense that other students truly understood the difficult and overwhelming nature of juggling study with full-time, demanding professional jobs. One student commented:

'Sometimes you can get so overwhelmed by everything and then something will happen in your life personally. It is hard to know that you

have got to fit this stuff in alongside these very important jobs that we do. We work with these little people and you have to get them through their education, deal with your life and then try and bring together your studies. The support from X has been a case of 'Just do a little bit at a time', 'Oh, I'm just going to scrape through this', 'Yes but you are getting through it!' That kind of support helps you to realise that you are doing your best'. (Student 19)

The comment above indicates the importance of emotional support and encouragement in helping students to endure the course. It also describes the strength of commitment the students felt towards their professional role as primary school teachers and their shared purpose towards completing the course to improve their practice in school. Student exchanges through the private groups also included valuable academic support, including sharing drafts of work and getting peer feedback through various online platforms:

'Just being able to share ideas, good books and material, links to good sources and resources for class so Facebook has had more of a positive impact on my learning'. (Student 15)

When reflecting on the way they had supported a fellow student in an academic sense, another student commented:

'I think we were really lucky because we have been a really big support to each other. Although we had different assignments, different year groups, different foci, because we knew what was expected in terms of the MA, we could apply that to each other's work. I think that I learnt from her and she learnt from me by looking at each other's work'. (Student 12)

In this way, the students' private use of informal online platforms was clearly a valuable tool for academic support as well being a space to share their emotions, frustrations and personal issues. Interestingly, research has suggested that female PG researchers often face unique emotional pressures such as balancing family and scholarly commitments (Lourens, 2016). It should be noted that sixteen of the twenty students interviewed were female, and all three tutors were female, factors which will have had an impact on the findings.

Interpretation of Themes from Tutor Data

Presented below is my interpretation of the themes generated by my TA of the tutor data. In a similar way to the student data, it was noted that the themes and their associated codes reflected characteristics that are typical to humankind such as communication, relationship building and emotions, therefore 'Being Human' was placed at the top of the thematic map as the overarching theme.

Emotions

Engagement with technology was frequently discussed with reference to emotions by the tutors, therefore the themes named 'Feelings' and 'Technology' were linked together. Two tutors reported a concern about the permanent nature of the BBDBs posts which made them feel cautious about what they posted. Tutor 3 commented *'I feel a bit uncomfortable about the concreteness (of the BBDBs). I'm probably not as free and relaxed about commenting on them because you feel as though you have got to be so very careful what you put down'*. In contrast, when describing their experiences of face-to-face interaction, tutors talked about their emotions in more positive ways, for example, they reported feeling more comfortable and relaxed. Tutor 1 described it as being easier to *'gauge how somebody is feeling or what they are thinking'* in face-to-face sessions. Such comments imply that misinterpretation through online communication may arise from the lack of body language and social clues that are missing with text-based communication, an observation which underpinned the code named 'Nonverbal Communication'.

'Technology' was also linked to the theme named 'Visibility' which signalled the tutors' desire to have a presence with the students. 'Visibility' also reflected the idea of tutors being able to show they valued and cared for the students, as well as having visibility of the students' learning, as highlighted below:

> *'I want to show people that I care and that I have a passion about this and that is really hard to do online'.* (Tutor 1)

> *'I find that (online) distance really difficult to feel that I am making a difference and doing something worthwhile because you don't*

know. You can see who has been on BB, but you don't know where their thinking is. I suppose I have got to feel reassured that when they are dipping into the Blackboard stuff, they are continuing with that internal monologue. As a teacher I want to see that happening and it is hard when I can't see that happening'. (Tutor 1)

Observing student reactions and obtaining visible feedback from them was viewed as highly important and being unable to observe the students' learning and communication through BB was troubling for all tutors. Furthermore, having visibility of students and being visible through BB was perceived as difficult for tutors to achieve. In comparison, visibility was perceived to be easier through face-to-face communication. Tutor 3 commented '*I think I prefer all aspects of face-to-face teaching than online teaching because I can see the [primary school] teachers' responses immediately*'.

Issues of Power and Control

The issue of control was often discussed by tutors and having visibility of student communication seemed to link closely with the degree of control tutors believed they had with regards to student learning. Tutors described feeling a greater sense of control over teaching and learning in face-to-face sessions whereas control was perceived to be reduced in online communication. For example, tutor 1 commented that '*Learning is more tangible, and you feel in control of it on face-to-face days'.* Therefore, the theme 'Visibility' was connected to the code named 'Control' which was encompassed under the theme of 'Learning'.

The issue of control was noted as being important with regards to both face-to-face and online teaching and learning as demonstrated in the comment below:

'I also feel with face-to-face learning I am in control. I can see what people are thinking, I can encourage that debate. I can see any difference that I am having. I know what is going on, I know what people are thinking because I am involved in their thinking because we are thinking together. I suppose I have been a teacher for so long that is what is really important to me' (Tutor 1).

As well as feeling more in control of learning during face-to-face sessions, tutors reflected that they could show they cared for their students more effectively through

face-to-face interaction. One tutor commented *'You can show value to students instantly in face-to-face learning'.* In contrast, it was perceived as difficult to show caring emotions online *'I want to show people that I care and that I have a passion for this and that is really hard to do online'.* Through face-to-face interaction, tutors felt reassured they were making a difference and having an impact on their students in comparison to teaching online. In contrast, when reflecting on engagement with the BBDBs, tutors seemed less certain about who was in control of learning: *'As a tutor it is really difficult because you have no control over your students' learning' (Tutor 1).*

Tutors seemed to grapple with tensions they had experienced regarding their role in online discussion through the BBDBs.

> **'I tried to make the BBDBs anonymous because I thought that might encourage people, but it didn't seem to. You know it is not like we can say there have been any resounding successes! This year I said to them 'I might not respond because this is actually yours'. I wanted to hand it over to them. Somebody did put a comment on but because nobody else had commented, I thought 'Right, I have got to put something!' He had started his own debate on something he had read. So it is getting the balance right' (Tutor 1).**

For example, through explicitly giving up their perceived control of the BBDBs, the tutor above was hoping to stimulate discussion between students. However, when only one student engaged, the tutor felt compelled to respond to prevent the student from feeling ignored.

Connection and Relationship Building

All tutors held the view that meeting students face-to-face early in the course was imperative to them building important relationships with them. Therefore, the theme 'Connection' reflected the apparent importance of tutors having face-to-face conversations with students to build rapport and to let them get to know them. One tutor commented:

> **'It is important to meet the students because with face-to-face you get a feel of who they are, and they get a feeling of who you are, and it becomes**

more personal. I think it is just the asides, not necessarily the teaching but when you are having a coffee or lunch, you get to know the students and their background. They will tell you things they wouldn't tell you if you hadn't got that face-to-face contact. I suppose they could confide in you because they know you more as a person, so I think it is that personal touch and the building of rapport not just between the tutor, but between the students as well. (Tutor 3)

Connecting with students on a personal level was viewed as important in terms of building trust. Tutors also believed that students would be more likely to utilise their support if they could put a face to a name. 'Connection' therefore linked into the theme of 'Tutor Support'. Tutors felt that getting to know their students' situation and professional context meant they could tailor their teaching towards individual students as highlighted in the extract below:

'It is about that assessment for learning as well, whether you are working with an individual or working with a group. Having that discussion you can make that judgement, you can ask those other questions to make sure that what you are saying is appropriate to their context and situation whereas in an online response there is always that worry of 'Have I missed something?', 'Have I got the right person in mind?', 'Can I remember about their context?', 'Have I got them confused with somebody else?' I suppose it feels more bland to me through online communication, it feels more generalistic rather than specific to their needs and context'. (Tutor 2)

Concerns about being able to offer individualised support through the BBDBs were based on the perceived difficulty of getting to know students this way, making it challenging for tutors to teach according to their students' specific needs. Building relationships with students through face-to-face interaction was therefore viewed as crucial with regards to tutors personalising their teaching and enhancing the overall student experience.

In the following section, comparisons are made between the student and tutor themes.

Comparison of Themes from Student and Tutor Data

The theme 'Being Human' was placed as an overarching theme across all student and tutor themes as characteristics associated with 'Being Human' were seen to encapsulate and subsume all the other themes created. For example, themes such as 'Technology'

which is not a typical characteristic associated with being human was discussed with reference to emotions by both students and tutors and therefore this theme was also subsumed under the theme of 'Being Human'.

Emotions

The themes 'Technology' and 'Feelings' were shared by both groups in the sense that both students and tutors reported feeling negative emotions such as anxiety about the permanence of the written posts on the BBDBs. In contrast, both students and tutors felt more positive and comfortable when engaging with face-to-face sessions. Two tutors felt cautious about posting comments and reported feeling uncomfortable with the formality of the BBDBs as a communication tool as shown in the following comment:

> *'I cannot be very casual on the BBDBs because if you are not careful, it can be misread and misinterpreted a bit and once it is written down it is there 'and the tutor said this' you know?' (Tutor 2)*

The tutor who did not report being worried about contributing to the course BBDBs shared some similar prior anxieties they had experienced as a student:

> *'As a student studying on a course for a professional qualification, I didn't do it because I thought 'Gosh what I am putting out there is there forever! People might think I am being silly'. I had to put a contribution and I didn't feel as if A) it was comfortable or B) it was worthwhile because anything that I put on was kind of forced rather than 'Yes, I need to respond to this! I did feel that anxiety of 'I am not as intelligent as other people' or 'Will I sound stupid if I put my name to this?', you know all those insecurities.' (Tutor 1)*

Such comments suggest that tutors can experience the same concerns as students when engaging with BBDBs, reflecting the notion that both tutors and students understandably experience similar emotions as we are all human beings. Whilst the students were obviously not aware of how tutors felt about engaging with the BBDBs, tutors speculated that students might share the same feelings as them regarding posting comments, however, the students' emotions were not visible to tutors:

'I suppose it is partly to do with being able to be open and confident about your reflections and I think if I feel that as a tutor, I would imagine the students feel like that'. (Tutor 3)

Whilst most students experienced positive emotions regarding using familiar online platforms outside of BB, two tutors reported that their anxiety about posting written comments on online discussion boards extended to social media platforms as indicated below:

'Once it has been typed up and it is on a website you can't change it. Whether it is a spelling error or whether you think 'Why did I ask that question? Oh my goodness me!' or you get somebody's response which can be misinterpreted online, and they probably did not mean to sound quite as sharp as it might come back. I think it is open to so many interpretations'. (Tutor 2)

The same two tutors discussed feeling a negative pressure to use social media platforms to keep pace with modern technology and the way schools communicate, and with the younger generations more generally as highlighted below:

'I'm not very au fait with social media. I have recently got a modern mobile phone, but I still haven't done 'what's app'. I haven't got involved in that even, I am reluctant to. I do wonder with the younger generation whether you should get involved because if you are not careful you will lose touch because of it but I find it a bit stressful. I like it to be quite controlled, so it is up to me when I look at my emails. I don't like that fact of being contactable continuously'. (Tutor 3)

Whereas most students highly valued the quick speed of communication through social media platforms, most tutors found this aspect of modern technology to compromise privacy and control which was perceived as stressful for them. Therefore, the student theme 'Time' which was based on frequent student reports of the value of the quickness of social media platforms contrasts with most tutors' perceptions that the speed of communication through outside online platforms is stressful and more difficult to control.

Connection and Relationship Building

'Connection' was a theme that emerged from both the student and tutor data. Both students and tutors viewed face-to-face interaction as vital for the development of both peer-to-peer and tutor-student relationships. For students, the early shared experiences and activities in face-to-face sessions encouraged them to make friends with others, which led to most students creating their own private groups through online platforms such as Facebook, text messaging and private emails. Through using such platforms, small groups of students strengthened and maintained their connections with others throughout the programme.

For tutors, building relationships with students at face-to-face sessions was vital in terms of allowing them to get to know their students on a more personal level which meant they could personalise their support. In contrast, teaching through the BB online platform was viewed as more generalised support. Teaching through the BBDBs was also viewed by tutors as limited in terms of developing rich discussion. Tutor 1 commented *'I want to show people that I have not got all the answers, but I love debating about it and that is hard to do online'*.

Issues of Power and Control

Many students viewed face-to-face sessions as a good way to stimulate reflection and learning, and tutors also enjoyed feeling part of the learning that occurred in a more visible way in face-to-face sessions. Therefore, the theme 'Learning' was shared by students and tutors. Whilst most students talked positively about the early shared experiences which encouraged the development of student led online groups, tutors discussed feeling that they were losing control, or had less control with regards to online learning and communication. This issue was driven by the fact that tutors were unable to see the learning that occurred online in the same way that they could visibly observe learning in face-to-face sessions.

Tutors were also concerned that the perceived power associated with their role would impact on student engagement with the BBDBs as highlighted below:

> *'Although we say to them it doesn't have to be perfect, perhaps they feel if a tutor is reading it, are they going to make judgements towards them which therefore reflects on their final mark perhaps?' I am conscious of putting something that might prevent other people from contributing'. (Tutor 1)*

Tutors wrestled with tensions regarding the perceived power their role carried and their desire to control student learning. In contrast, most students acted on their own free will and took control of their communication through using online platforms outside of the BB area.

Student Agency and the Use of Informal Online Platforms

Whilst tutors seemed to desire visibility and control of the students' learning, it seemed the students maintained their own control and resisted being controlled by the tutor (and by the University BB platform). Most students used their agency and chose to use platforms of their choice to communicate with others as highlighted below:

> *'Straight away after the first day we all got together on Facebook. We use that to network because it is just much more accessible. Blackboard for me is not a tool for networking, it is screens connecting'. (Student 13)*

The ease of access and speed of communication of social media platforms, along with their familiarity with it, was a driver for students to initiate the creation of private groups using online platforms. Through these groups, most students benefitted from various forms of support including sharing resources, peer feedback on assignments and moral and emotional support. Tutors speculated that students made their own connections either from meeting at the face-to-face sessions or through social media platforms. Tutor 3 commented *'Last year's group set up their own WhatsApp group to communicate with each other. I didn't get to be part of it, they just had it for themselves and I am not sure how much they used that for their own internal support'*. Being placed outside of these groups meant that tutors were unsure of how they were used by the students. The student theme 'Private Communication' seems to contrast with the tutor theme of 'Visibility' which was contrived from tutors reporting that they liked to see and feel in control of learning, yet students took control of their own learning and communicated with each other privately through various online platforms.

Individual personality characteristics were perceived to influence engagement with technology across both students and tutors. Both students and tutors reflected on characteristics of their personality as influencing their engagement with different types of technology. One student reflected that it was her character that made her prefer face-to-face interaction rather than communication through the BBDBs:

> *'I prefer talking to people at face-to-face days, I wouldn't have chosen to use the chat rooms online. I don't know why (laughs) I think it is just my character'. (Student 7)*

Similarly, another student discussed how it was probably aspects of their personality that influenced their engagement with the BBDBs and online platforms more generally:

> *'Because I do not use a lot of social media, I am not one to... I read all the posts, but I would not contribute. I don't know if it is just my personality and because I am not into social media and that is why I am not using it'. (Student 11)*

Interestingly, it was noted that whilst some students discussed how aspects of their personality characteristics influenced their decision not to engage with formal platforms such as the BBDBs, the same students had used informal online platforms to communicate with others suggesting that they had more confidence to use platforms outside of the BB area.

When discussing their reluctance to use Facebook, one tutor discussed how they desired their own privacy, a trait which influenced their engagement with it:

> *'I think it is a privacy thing, I don't like the fact of everybody knowing what you are doing really'. (Tutor 3)*

When reflecting on people's engagement with other online forums outside of the BB area, another tutor observed that people's personalities seemed to influence their engagement:

> *'When you end up with a few people who seem to use [online forums] quite frequently, why they do that, and other people don't? Is it something to do*

with their personality? I see some of those people who use the discussion threads and I suppose I know them better; they are outgoing, gregarious people by nature, and they seem to like to contribute an awful lot to the online community. I don't do that, so I suppose I empathise with teachers who don't do that. (Tutor 2)

The extract above illustrates the empathy the tutor feels for students who are not confident to post their thoughts on discussion boards, which highlights that the tutor shares similar feelings as the students in this regard.

Both students and tutors also reflected on their previous experiences when discussing their current engagement with technology. For some students, their past experiences seemed to undermine their confidence to engage with technology as highlighted below:

'My parents brought me up that you spoke to someone rather than talking over the internet and even now I will choose to ring somebody rather than go over the internet. I found it to be quite a daunting experience that quite a lot of the course would be done over the Internet. For me, that was my biggest worry when I started the course. I was concerned about logging on, and chatting to people. (Student 14)

Interestingly, the above student's concerns regarding their engagement with the online programme was specifically related to interacting with others through the technology rather than having more general fears about using the technology. For example, the prospect of 'talking over the internet' seemed a frightening and unfamiliar experience in comparison to the familiarity of speaking over the phone.

In a similar way, tutor 2 attributed their feelings of discomfort with different types of online technology to aspects of their upbringing:

'If you were more au fait with online and younger people who are very comfortable with online then… People might say 'Well you can get online as well' but me… whether it is me and the stage I am at and not being brought up so much with online, I don't personally feel comfortable with it'. (Tutor 2)

In comparison, another student who depicted themselves as a 'prolific' user of technology commented:

'I have grown up with that kind of technology, from my days at high school when you started discussions online. That is what you did so it seems like quite a natural form of discussion for me and I am quite happy to have a discussion in that way'. (Student 10)

The above student's early experiences of technology and using discussion boards whilst growing up seemed to have developed their confidence to engage extensively with this form of technology as an adult.

Summary of Interpretation of Themes

From examining the relationships between themes created from my DA in a holistic way, my findings potentially offer new insights into the complex nature of student and tutor engagement with technology and online learning communities in blended learning programmes. My findings show that student engagement with online communities is extremely complex, and it seems that the factors that influence students' engagement with online communities cannot be attributed to one specific area. Several interrelated factors influence students' engagement with technology, and subsequently their engagement with learning communities. Central to my findings is the discovery that student engagement with technology and online communities seems to be grounded in characteristics which are deeply human in nature.

From reflecting on the interpretation of the themes, several key findings emerged:

1. **Negative emotional experiences related to using the BBDBs had a substantial effect on how students engaged with others through the BBDBs, which impacted on the development of online communities.**
2. **The relationships students built with others through face-to-face interaction impacted on how they engaged with other students through online platforms, which influenced the development of online communities.**
3. **Power relations affected how students and tutors engaged with others through online platforms to develop online communities.**
4. **Students used their agency to engage with others through online platforms of their choice.**

5. **Social media and other online platforms were highly valuable in the development of small online communities.**

6. **Social media and other online platforms provided a space for students to offer each other valuable professional, academic and personal support.**

7. **Students' and tutors' individual personalities and their prior experiences affected the ways they engaged with others through different online platforms.**

CHAPTER 6: DISCUSSION OF FINDINGS

Introduction

At the beginning of this research I was interested in increasing understanding of the factors that impact on the development of educational online communities in a PG course for primary school teachers. More specifically, as the students and tutors involved in this research were engaged with a blended learning programme, I was interested in understanding the factors that impact on their preferences for online and face-to-face learning. I was also concerned with understanding the factors that encourage or discourage people from actively engaging in an e-learning community through the BBDBs. Through exploring the views of the students and tutors, it was my aim to examine these issues in depth to explore the ways tutors can best support the development of e-learning communities in future, in the course under study and in similar blended learning courses.

The following chapter includes a theoretical discussion of the key findings which are structured around the main research questions. The findings are also considered in relation to potential future practical implications. My main research question is stated below:

What affects engagement in an educational online community?

Four subsidiary research questions were developed to address the main research question:

What are the factors that affect students' and tutors' preferences for online and face-to-face learning?
What are the factors that contribute to active engagement in an e-learning community?
What are the factors that discourage active engagement in an e-learning community?
How can tutors best support the development of an e-learning community?

Carrying out interviews and FGs enabled me to explore the participants' views, allowing me to examine the complexity of people's engagement with others through face-to-face interaction, the BBDBs and other online platforms. Through undertaking a detailed TA on the data gathered, I was able to draw out and connect complex themes and issues which impact on the students' and tutors' engagement with the BBDBs and other online platforms. I propose that several of these factors ultimately impacted on the development of online communities in the blended learning programme under study. As a reminder, the key findings are:

1. **Negative emotional experiences related to using the BBDBs had a substantial effect on how students engaged with others through the BBDBs, which impacted on the development of online communities.**
2. **The relationships students built with others through face-to-face interaction impacted on how they engaged with other students through online platforms, which influenced the development of online communities.**
3. **Power relations affected how students and tutors engaged with others through online platforms to develop online communities.**
4. **Students used their agency to engage with others through online platforms of their choice.**
5. **Social media and other online platforms were highly valuable in the development of small online communities.**
6. **Social media and other online platforms provided a space for students to offer each other valuable professional, academic and personal support.**
7. **Students' and tutors' individual personalities and their prior experiences affected the ways they engaged with others through different online platforms.**

I now discuss each subsidiary research question with reference to the key findings, and with consideration of relevant theoretical perspectives.

What are the factors that affect students' and tutors' preferences for online and face-to-face learning?

The evidence indicates that several interrelated factors influenced students' and tutors' preferences for face-to-face interaction and engagement with the BBDBs, including what participants described as their 'personality', the way relationships developed between participants through face-to-face interaction, and the negative emotional experiences that most students and tutors encountered when engaging with the BBDBs.

Students' and Tutors' Individual Personalities

'With my personality, I'm not someone who feels massively comfortable with posting [online]. That just comes down to me as a person; I'm far better having that open discussion when we are in a group situation with people. It's just within my nature; I'm not as comfortable behind a computer screen as I am with people in the real world'. (Student 5)

Both students and tutors referred back to aspects of their personality and character when reflecting on their preferences for online and face-to-face interaction, and also when discussing their engagement with online platforms. For example, some students and tutors admitted to feeling shy and reserved when communicating through the BBDBs in comparison to talking with others, and also when using other online platforms of their choice. In contrast, other students discussed feeling comfortable and confident to engage with both forms of interaction and they attributed this fact, in part, to their outgoing personalities. When discussing personality, McGeown et al. (2014: 279) define it as 'a set of underlying traits that determine how an individual typically behaves, thinks and feels'. Whilst much research has focused on students' motivation, satisfaction and academic achievements in relation to online learning compared with face-to-face learning environments, it has recently been suggested that the impact of personality traits on student perceptions of online learning requires further attention (Bhagat et al., 2019).

Bhagat et al. (2019) found that students' personality types were closely related to their preferences for certain design features of online courses. Other studies have found a similar association between the personality traits of individuals and their level of

acceptance and use of technology (Maican et al., 2019). In Maican et al.'s (2019) study, which focused on University academic staff completing questionnaires to explore aspects of their personality and their acceptance of technology, they found that individuals who were more extraverted, more agreeable and open to experiences, had lower levels of anxiety and higher levels of self-efficacy regarding technology use. These individuals were more motivated to use online communication applications in their academic work, and they used them more frequently than individuals who scored higher for neuroticism. In contrast, individuals who scored higher for neuroticism had higher anxiety and lower self-efficacy levels towards technology, and they were less motivated to use online communication applications. Whilst my study did not set out to explore the effect of personality traits on people's preference for, or engagement with technology, the evidence suggests that many students and most tutors believed their personality impacted on their preferences for, and their engagement with technology and face-to-face interaction.

Relationship Development

'I think the value of the day sessions is huge because you can't take away from face-to-face conversations'. (Student 13)

Another factor which impacted on people's preferences for face-to-face interaction was that it was seen as a more natural way to form relationships with others than through the BBDBs. Both students and tutors found face-to-face interaction to be a more comfortable and quicker way of communicating, which made them feel relaxed, safer and more confident to participate. This finding resonates with the thoughts of Turkle (2015: 3) who asserts that 'Face-to-face conversation is the most human and humanising-thing we do'. She proposes that through being fully present with others we are able to listen, develop empathy, experience being heard and feel understood. Other researchers have also discussed the importance of face-to-face contact for relationship and community building (Booth and Kellogg, 2015, Paskevicius and Bortolin, 2016, Rose, 2017). Furthermore, Bikowski (2007) claims that the building of relationships between students is increased through face-to-face interaction (including spending time together

and conversing in person) in comparison to when communicating through online channels.

My research found that the trust built between students increased their confidence to participate in face-to-face interaction which led to further reification in the form of them sharing their ideas, practice and resources through verbal discussion, which increased the sense of community experienced by students. This finding aligns with other studies which suggest that relationships and trust between students can be built by incorporating face-to-face sessions with online learning, which can increase the sense of community experienced by students (Oliphant and Branch-Mueller, 2016) and support the development of effective online communities (Paskevicius and Bortolin, 2016, Williams et al., 2007). It also concurs with Booth and Kellogg's (2015) study which found that allowing group members to work in a face-to-face way helped to build trust, which then impacted on teachers' engagement with online forums and strengthened the e-learning community.

In my research, the fact that the BBDBs were not seen as an effective tool for networking, and they were described as being stilted and unnatural, was a factor which affected students' preferences for face-to-face interaction. This finding is in line with Kennedy and Gray's (2016: 426) research which revealed that students were negative about the lack of a perceived 'emotional link' with others in the group which stemmed from using BBDBs. The authors conclude that communication through BBDBs can lead to students feeling less connected to others and potentially more isolated. In addition, my findings revealed that the BBDBs evoked a negative emotional response in many participants, a finding which will be discussed in greater depth later in this chapter. In contrast, through having the chance to interact verbally with each other when together in a physical way, students in my study were positive about the deepened connection they made with others and reported feeling a stronger sense of community. Similarly, Bikowski (2007) found that all students interviewed in her study were more likely to form relationships with others and post comments through the text-based forum once they had spoken over the phone and/or met in person, which increased the sense of community for the students involved. Thereby, it could be proposed that strong

relationship development between students might increase the chances of success in relation to online communities.

Tutors also expressed a preference for face-to-face learning due to them feeling a stronger connection with their students. Being with them in a physical way gave tutors a sense of being visible and being involved with the learning that occurred, enabling them to provide personalised teaching to individuals. In contrast, all tutors felt it was more difficult to get to know students when teaching through the BBDBs. Whilst tutors value the way BB allows generic communication to larger student groups, they also view the BBDBs as limited in terms of enabling them to meet student needs in comparison to the personal contact made through face-to-face interaction. This finding is similar to the results of Kear et al.'s (2012) study which identified that educators found it more difficult to identify and meet the needs of students when using web conferencing compared with tutoring face-to-face, a finding attributed to a lack of nonverbal clues when using web conferencing. Tutors in my study were more able to show they cared for their students through face-to-face interaction whereas they were less certain of the difference they made in online teaching, which is similar to Rose and Adams (2014) who found that tutors felt troubled by their inability to get to know their students as real people online. They suggest that this can lead tutors to perceive themselves as not showing their students they care enough, a finding which aligns with my findings.

Furthermore, tutors in my study held firm beliefs that they could teach more effectively through face-to-face interaction which impacted on their preference for teaching in this way, a discovery which concurs with Petit dit Dariel et al.'s. (2013) research. In their study, nurse educators' responses to e-learning were affected by their strongly held beliefs that human contact is the most crucial aspect of the learning process, an outcome which resonates with my findings. Similarly, Smith and Herckis (2018) discovered that faculty members hold distinct views of what good teaching and learning experiences involve, including relational, content-focused, measurable, and practical experiences, which heavily influence their approach to teaching. They discovered that educators usually lean towards one main orientation to guide their teaching. Interestingly, the most significant focus for educators who hold a relational view with

regards to teaching and learning is the importance of interpersonal emotional bonds with others, which echoes my findings. Smith and Herckis (2018: 15) state 'These faculty [members] tend to stress a feeling of emotional connection as the central characteristic of good teaching'. Tutors in my study repeatedly emphasised the value they placed on having physical contact to build emotional connections with their students, suggesting they might hold a relational view with regards to good teaching and learning.

Prior Experiences

'I think it may be because we are [primary school] teachers. That is our job - we teach. The bottom line is I am a teacher and I am not a teacher who has taught online previously'. (Tutor 1)

Tutors also reflected that their beliefs were underpinned by their prior experiences of teaching in a face-to-face way in their former roles as primary school teachers. The participants involved in this research held between 3 and 29 years of experience of face-to-face teaching in primary school settings. Their prior experiences meant they were skilled in understanding and applying pedagogy appropriate to face-to-face teaching rather than online interaction, which may have impacted on their preferences for face-to-face and online learning. Comparably, both Youde (2020a) and Petit dit Dariel et al. (2013) noted that educators' beliefs were influenced by their prior experiences of e-learning. For example, Youde (2020a) observed that tutors' previous negative experiences of online learning influenced their perceptions and potentially their delivery of e-learning. Similarly, Petit dit Dariel et al. (2013) noticed that some nurse educators held sceptical beliefs regarding e-learning due to their past (negative) experiences of using e-learning, which influenced the way they used e-learning in their practice. These study findings support the notion that tutors' prior experiences will ultimately influence their future preferences, actions and practice.

Wenger's (1998) Communities of Practice Theory

'When you are talking to someone, the discussion goes off just from the response you have had, and it goes off in a different direction which you wouldn't necessarily get online. I suppose you get more depth when you are talking face-to-face'. (Student 7)

To examine why most participants in my study expressed a preference for verbal face-to-face conversation to online text-based interaction, and to understand why they viewed spoken conversation as a better way of making relationships with others, I turn back to Wenger's theory (1998).

Wenger (1998) explains that spoken language in the form of a conversation is a good example of the duality of participation (being actively involved) and reification (in the form of words) being 'tightly woven' which results in spoken conversations being a strong form of communication. Through taking part in small group activities and actively participating in spoken conversations at the face-to-face sessions, students shared ideas about their practice. Conversations such as these enabled students to form deeper connections with others, which resulted in them negotiating meaningful learning experiences. Similarly, other studies have shown that participating in group activities in blended learning courses can help students to get to know each other as well as developing a sense of belonging (Masika and Jones, 2016).

My findings indicate that people preferred face-to-face sessions because they experienced mutual engagement through synchronous interaction, whereas this was perceived as more difficult to achieve when interacting through the asynchronous BBDBs. Mutual engagement is a crucial aspect of community development according to Wenger's CoP theory (1998). Through having a shared passion for their subject, and through participating in group activities and discussions, students and tutors were mutually engaged with each other and they encountered experiences that were meaningful to them, a fundamental element which underpins the development of community building (Wenger, 1998). The feeling of learning together helped to develop a sense of community for both students and tutors. Furthermore, the building of trusting relationships through face-to-face interaction served as a stimulus for most students to create their own private groups through online platforms such as Facebook. Through being mutually engaged and having meaningful encounters in this way, the students collectively negotiated the creation of their own practices, which is indicative of another important element of Wenger's CoP theory (1998: 77) named as 'joint enterprise'.

What are the factors that contribute to active engagement in an e-learning community?

Student Agency

'We got to know each other as a group, and then we added each other on Facebook, and I think someone just put the odd comment in a group chat and then it just built from there.' (Student 17)

Whilst most students in my research did not contribute to the BBDBs, through making friends at face-to-face sessions students experienced increased levels of trust to share their ideas through other online platforms. This finding corroborates the ideas of Hilliard et al. (2020) who suggests that when students get to know each other early on in courses, it can help to build positive relationships and trust between them. It also provides support for Matzat's (2013) research which found that the strength of offline community groups can help with the success of online communities. Most students in my research resisted the invitation by tutors to use the BBDBs to communicate with each other. Instead, they exercised individual and collective agency, through actively negotiating their choice of technology and peers to create their own small online communities through platforms including Facebook, What's App, private emails and text messaging.

Agency has been described as a vital part of the perception of freedom for humans (Arasaratnam-Smith and Northcote, 2017), and active agency refers to people exercising 'some governance in their own lives' (Archer, 2007: 6). Fundamental to human agency are powers which allow 'people to reflect upon their social context, and to act reflexively towards it, either individually or collectively' (Archer, 2000: 308). Archer (2007) explains that both structural and cultural powers impact on humans' reflexive internal conversations and their agency. For example, people are routinely faced with situations that are shaped by properties of culture and structure (i.e. constraints and enablements) which either increase or reduce a person's motivation to take a particular course of action. The person then reflexively deliberates about their own concerns in relation to the structurally shaped circumstances they are faced with, before taking any action.

In relation to my findings, it could be proposed that students were confronted with the invitation to engage with the BBDBs, which were part of the structurally shaped circumstances related to the course. However, through personal deliberation about their concerns (e.g. the fact that the BBDBs were not perceived as a good way to network with others) and their circumstances (e.g. the fact that the BBDBs were not a compulsory element of the situation), it could be suggested that most students used their power of agency to resist using the BBDBs. Furthermore, they changed their actions in the direction of success through identifying better ways to communicate online, thereby enhancing their ability to network (and develop their communities) through other online platforms. Whilst my research evidence suggests that the students' reflexive decisions regarding their apparent resistance to engage with the BBDBs were based on a multitude of factors (such as the quick speed of other online platforms in comparison to the BBDBs), the fact that students were able to shape the situation to suit themselves was itself a factor that impacted on the success of small online communities which operated outside of the University online platform. Students did not perceive the non-compulsory BBDBs to be a constraint in relation to them shaping the situation to suit their personal concerns. This finding concurs with other studies which show that students use multiple online spaces and technological devices innovatively to suit their own personal situation (Gourlay and Oliver, 2013), which enables them to personalise their own learning (Trust and Horrocks, 2019).

Issues of Power

'As a tutor it is really difficult because you have got no control over your students' learning (online). You don't know what they are doing, and you can't impact on that'. (Tutor 1)

Whilst the students used their agential powers of resistance (Archer, 2007) by avoiding participation with the BBDBs, tutors were troubled by the lack of visibility of student communication through BB. By not being aware that students had created their own online groups, tutors felt potentially disempowered, with loss of control over online communication. However, if the desired expectation in distance learning is for students to set up their own learning communities then students need to be empowered to have more freedom without strict monitoring from tutors (Vlachopoulos, 2012).

Vlachopoulos's (2012) study showed that when tutors were heavily involved in setting up the online learning environment (i.e. facilitating discussions), students mostly worked towards satisfying their tutor. Comparatively, when students were given autonomy in their learning, they took control over their interactions with less tutor input, and there was a stronger community feeling. Vlachopoulos (2012: 1004) concludes that rather than trying to ensure there is a balance of power between tutors and students, a community of empowered learners 'who are willing to exercise their power to benefit the community' is needed.

The concerns raised by tutors in my research were related to what might be lost when students fail to engage with the BBDBs, which was one of the motivating factors for me to undertake this research. It might be the case that once tutors become aware of the ways that students frequently use other online platforms to support their studies, they might feel more empowered to explore their online pedagogy to further support their students. My findings could help tutors to understand the actions of the students in relation to their social situation (Archer, 2007), including the perceived constraints (i.e. the BBDBs were not viewed as a constraint as they were not compulsory) and the perceived enablements (i.e. students benefitted from various types of peer support through using social media platforms) of the situation, which might inform tutors' future actions and practice.

Usability of Online Platforms

'I would be quicker and much more willing to reply in a familiar context. I think the BBDBs look quite serious whereas Facebook is already built to add photos, to add videos, to add quick comments and it is much more user friendly. I think because it is more user-friendly people are more likely to use it over a professional platform'. (Student 7)

Part of the reason for students in my study actively choosing to use other online platforms to build their communities was the quickness, ease of access and familiarity with such platforms in comparison to the BBDBs. McLead and Vasinda (2008: 261) discuss how newer technologies (i.e. Web 2.0) enable two-way control of communication which empowers communities to 'collectively create meaning and

value' whereas older technology (i.e. Web 1.0) involves one-way communication whereby the power lies in the hands of the creator. The discussion area in BB is predominantly an instructor regulated platform which was designed for most activities to take place in the form of print whereas more advanced digital media (such as Facebook) allows users to communicate in a more creative, and less controlled and regulated way (Williams, 2013). Communication through these platforms is also faster which potentially allows students to better connect with others (Carpenter and Green, 2017). Similarly, the students in my study reported the speed of other online platforms to be quicker than the BBDBs and easier to use which meant communication was enhanced, and most chose to use web 2.0 platforms (such as Facebook) to communicate with others. The evidence suggests that the usability of other online platforms in comparison to the BBDBs, was a factor that contributed to the students' active engagement in e-learning communities outside of the BB area.

This finding supports Davis's (1989) technology acceptance model (TAM) and other research (Venkatesh and Davis, 2000, Venkatesh et al., 2003, Mazman and Usluel, 2010, Owusu et al., 2019) which has shown that two factors are particularly important regarding people's acceptance of, and use of technology. These two factors are the extent to which people perceive the technology to be useful (to enhance their performance), and the effort people believe they will need to exert in order to use the technology effectively. Davis's (1989) original technology acceptance model (TAM) was extended to create the TAM2 model (Venkatesh and Davis, 2000), which was later developed into the Unified Theory of Acceptance and Use of Technology model (UTAUT) (Venkatesh et al., 2003). The UTAUT model goes further to suggest that social influence (i.e. the user's perception of whether social norms encourage or discourage their use of the technology) and facilitating conditions (i.e. the user's perceptions of internal or external constraints) also influence the user's engagement with technology. Other studies have shown that the perceived usefulness of Facebook is the most important factor in students' decisions to use it for educational purposes, along with ease of use, social influence, facilitating conditions and community identity (Mazman and Usluel, 2010). Similarly, through using aspects of other technology acceptance models to investigate students' perceptions of the use of social networking sites (SNS) for

academic purposes, Owusu et al. (2019) found that students perceived SNS to be useful and easy to use, which increased their motivation to use it, an outcome which aligns with my findings.

Valuable Peer Support through Using Other Online Platforms

'We have almost set up that learning community where we have got a shared purpose. We are able to support one another either with what we are doing or just cajoling one another, enthusing one another, encouraging or suggesting different lines to go along'. (Student 18)

Using other online platforms offered the students in my research a worthwhile way to maintain the friendships already built through face-to-face interaction, a finding which supports a raft of studies that have shown that informal online environments (such as Facebook) play a key role in maintaining friendships (Trust and Horrocks, 2019) and student interaction outside of the classroom (Cramp and Lamond, 2016, Owusu et al., 2019). Students have also reported feeling more comfortable with the informal and fluid nature of communication through familiar platforms such as Facebook (Cramp and Lamond, 2016), which resonates with my research. In Cramp and Lamond's (2016) study, engagement with Facebook helped students to merge academic communication with social communication which ultimately felt more like face-to-face communication. In this way, learning was described more like a social activity. However, participation was mandated in Cramp and Lamond's (2016) study which was described as unnerving by some students. In contrast to Cramp and Lamond's (2016) findings, whilst students in my study felt unnerved by engaging the BBDBs, they used their autonomy to create their own meaningful participation with others (using platforms such as Facebook), suggesting that human agency was a crucial factor in the development of online communities in my research.

Through forming their own private online groups, most students benefitted from various forms of meaningful support including emotional support, sharing resources and receiving peer feedback on academic assignments. In this way, there was evidence of students developing a shared repertoire, which is the third aspect of practice essential to community development (Wenger, 1998), which involves group members developing

routines and resources that become part of the community's practice. This activity further encouraged students to actively engage in online communities outside of the BBDBs. This finding offers support for other studies which indicate that students use online platforms such as Facebook for educational purposes, including for communication, collaboration and for sharing resources and academic materials (Mazman and Usluel, 2010, Owusu et al., 2019). Through shaping the situation to suit themselves, students guided their own learning relevant to their needs, a finding which aligns with Carpenter and Green's (2017) study which showed that students self-directed their own informal learning when using social media platforms.

Using social media platforms also offered a space for students to provide support for each other in a personal sense, as well as academically and professionally. Comparably, in a study by Satchwell et al. (2015), a small group of EdD students instigated the creation of a 'secret' Facebook group which was used effectively as a tool to offer emotional and academic support throughout their course. One of the factors that contributed to the group's success was the fact that the group was not led or influenced by the tutor and was completely owned by the students. Similarly, in my research the private online groups were owned by the students, and they offered a space for friendship development, where students felt morally supported and motivated by others, which further strengthened their small online communities.

Posthumanism and Engagement with Online Platforms

'A large percentage of people have Facebook on their phone. Facebook is open on a Tab in a browser and it is chundering along and you get a notification when somebody has commented on something and it is tied into something you are already doing'. (Student 10)

Crucially, the chosen social media platforms used by students were already an integral part of their everyday lives in most cases, which further impacted their decisions to use these technologies. In some cases, students perceived themselves to be connected with these informal forms of technology both in their personal and professional lives. For example, one student commented: *'[Blackboard] it is not your day to day is it? Facebook, Twitter, WhatsApp, they are the ones you are using all the time on a social level, but you*

can switch them quite quickly to professional if you want to'. In this way, my findings could show support for the posthuman idea that human beings are entangled with technology in inextricable ways (Bayne and Ross, 2013).

Critical posthumanism questions the 'common sense' ideas about what it means to be human (Bayne and Ross, 2013: 100) and the notion that human beings stand at the centre of all things whether they be living or non-living. Rather than seeing humans as observers of, and separate from the world, posthumanism views human existence as being produced 'within and through discursive practices' (Bayne and Ross, 2013: 100), viewing humans as being 'entangled with the world' (Bayne and Jandric, 2017: 14) and the networks with which they engage. In terms of education, posthumanism challenges the humanist perception that education serves solely to bring out the potential of humans (Bayne, 2018), rather it considers education as a gathering of different elements (Edwards, 2010 in Bayne, 2018: 4). This perspective, Bayne (2018) explains is particularly useful when considering aspects of digital education, especially in terms of understanding how we are inextricably linked with non-human elements such as machines and technology.

Some authors rationalise that over time and with continued use, technology becomes part of human beings (Porter, 2002, Bray, 2013). To exemplify this argument, Porter (2002) describes how, over many years, he and his computer have become partners when composing his writings. He claims that the machine has become part of his identity and his practice as a writer. Bayne and Ross (2013) go further to suggest that when humans and machines come together or are entangled in a deliberate way, they can create something better. They strengthen their argument about humans being entangled with technology systems through their reflections on a fully online course, in which students were required to work closely with online technology to produce digitally created and assessed material (Bayne and Ross, 2013). The assignment task named the 'life-stream', captured and collated into chronological order, a stream of each student's digital web content (such as tweets, blogs and posts), which were submitted as a digital essay. Because the life-stream was partly created by the students and partly organised by the computer software, Bayne and Ross (2013: 102) propose

that the resulting completed work was jointly authored by the student and the network through a 'messy partnership'. However, the course content in this study was specifically designed to develop students' understanding of concepts such as digital literacy and post humanism which might have attracted people who already had a strong interest in digital education, thus impacting on the study results.

Given that my research discovered that most students utilised a range of online platforms that they already seemed to be entangled with in their everyday lives, and given that these forms of technology were used to provide each other with invaluable meaningful assistance, I propose that my findings show some support for the ideas of Bayne (2018) and Porter (2002). These authors suggest that through different kinds of positive combinations between humans and computers, our jobs and practice can be improved. Through their entanglement with various online platforms, small groups of students in my research offered each other important academic and emotional support which helped them to persevere with the course, as shown in the comment below:

> *'I genuinely don't think I would have done this experience without X. For example, the emails just going back and forth with reassurance, 'Am I on the right lines with this?', 'Is this the right research for doing this?' It was constant for me and I need that constant reassurance. We were constantly texting each other back'. (Student 20)*

Other studies have found similar results, identifying that students coordinate 'material objects, digital objects, and other human actors' to create their own spaces in which to engage with academic, professional, or personal tasks (Gourlay and Oliver, 2013: 94). In my research, without the intermingling of people and technology, it would have potentially been more difficult for students to have experienced a continuous level of valuable peer support throughout the programme due to the physical distance between students. These gatherings of technology and human beings were reported to have enhanced the overall student experience, a finding which shows support for Bayne and Jandric's (2017) idea that humans and technology can congregate together to create something better.

What are the factors that discourage active engagement in an e-learning community?

Usability of the BBDBs

'Facebook was a lot quicker, although I could get BB on my phone, I had to put my password in every time whereas Facebook was just there'. (Student 4)

The evidence suggests that the usability of the BBDBs, including the time it takes to use and communicate with others in comparison to other online platforms, was a discouraging factor for most students in terms of them actively engaging with the BBDBs. This finding provides support for Williams (2013) who claims that the usability of BB can lead students to be attracted to other digital platforms. Furthermore, the BBDBs were viewed as restrictive in terms of allowing relationships and trust to develop between students, and between students and tutors, which was a barrier to student engagement with them. Moreover, the unfamiliar nature of the BBDBs (including students not knowing who they were posting to and feeling wary of them) discouraged students from engaging with others through this platform. This observation concurs with other studies which have shown that trust issues between members can be a potential barrier for online communities in achieving their full potential (Matzat, 2010, 2013). It could be suggested that most students in my study contemplated these issues before acting with agency to deliberately adapt their situation to improve it (Archer, 2000), by using other familiar online platforms to create online communities.

Negative Emotional Experiences

'It is easier to say things, I'm too scared of writing things down (online) in case others say 'Oh that is silly' or they dismiss it. It is more permanent in a way as well'. (Student 11)

The negative emotions experienced by most students when engaging with the BBDBs was another salient factor which prevented them from actively engaging with them. The negative emotional reactions students experienced were evoked by concerns about being misinterpreted or judged by others. Thoughts of the concrete and permanent nature of text-based communication resulted in students feeling both pressured and

reluctant to post comments. This finding aligns with other research which has identified that stress, anxiety and reluctance can be part of the range of feelings experienced when students engage with online learning (Kennedy and Gray, 2016, Lukman & Kranjnc, 2012, Reilly et al., 2012) and online discussion forums in particular, which can lead to non-participation (Griffin and Roy, 2019).

This finding is also consistent with studies which have shown that the emotional response of students can impact on their engagement with online communication (Hughes et al., 2007, Guldberg and MacKness, 2009, Reilly et al., 2012). In Du et al.'s (2016) study, negative emotions were induced in students by a lack of online interaction from others and from unsatisfying communication with peers. Similarly, Hilliard et al. (2020) found that the anxiety students experienced before and during an online collaborative project led to a decrease in participation with the online forum. Their results showed that the perceived reasons for the anxiety stemmed from the students being required to post comments on the forum, from them not knowing the other students and worrying about being judged by others, a discovery which concurs with my findings.

Similarly to the students, most tutors in my research reported experiencing negative feelings of anxiety and a lack of confidence when posting comments online due to thoughts about them being misinterpreted. Tutors also held a perception of text-based communication being more concrete and less fluid than verbal communication. Such thoughts and emotions resulted in them being more cautious when contributing their comments to online platforms both within and outside the University setting, which is similar to Herckis's (2017) research. In a long-term study which was designed specifically to understand why academic staff fail to change their teaching styles, Herckis (2017 cited in Matthews, 2017) found that the main reason was due to lecturers being afraid to look stupid and embarrass themselves in front of their students.

A number of studies have explored tutors' perceptions of synchronous discussion tools and they have found that tutors can feel anxious when engaging with unfamiliar communication tools such as web conferencing (Kear et al., 2012, Kozar, 2016). In

Kozar's (2016) study, webcam tools were used a great deal by tutors in the first two weeks in order for students to meet them, however, usage of the tools reduced after this time. More than half the tutors reported that one of the main reasons for this reduction was that videoconferencing made them feel self-conscious. The authors speculated that these feelings were related to the fact that tutors could see their own face on the camera as well as being able to view their students' faces, which is different to when tutors teach in a face-to-face way. Similarly in Regan et al.'s (2012) investigation, which focused on the emotions of online instructors, tutors reported experiencing more negative than positive emotions with regards to online learning such as anxiety, apprehension and feeling insecure. Interestingly, their findings revealed that tutors who had more experience of the technology and online teaching reported experiencing positive emotions (such as pride and satisfaction) from online teaching, implying that people's prior experiences of using technology could be related to their feelings towards using it.

In my research, an outcome of students being reluctant to engage with the BBDBs was a perceived lack of connection with others, which further reduced student participation, resulting in them having even fewer meaningful experiences. These findings provide support for Wenger's (1998: 67) argument that there must be a balance of participation and reification to create meaningful experiences for learners, as any imbalance can result in an 'experience of meaninglessness' for learners. In contrast to the meaningful experiences students encountered through spoken conversations, the lack of participation with the BBDBs resulted in less evidence of any form of reification or meaningful experience for the students which, in turn, led to a further reduction in their participation with the BBDBs.

From reflecting back to Wenger's (1998) theory, it could be argued that participating with verbal and written communication produced different 'forms of meaning' or reifications for participants. For example, students experienced meaning and felt a stronger sense of community in face-to-face sessions. In contrast, communication through text-based communication using the BBDBs was viewed as challenging. My findings might suggest that the participants' emotional reactions towards the two

different 'forms of meaning' impacted, in part, on their level of participation. For example, the perceived permanence of written communication on BB, combined with not knowing other members, elicited strong negative emotional reactions from students which inhibited text-based discussion with others, suggesting that several interrelated factors discouraged students' active engagement with the BBDBs. However, once students formed relationships, their anxieties were reduced and they were happier to communicate through their chosen online platforms, which allowed for a balance of participation and reification to create meaningful experiences (Wenger, 1998).

It would make sense then to suggest that Wenger's (1998) notion of the duality of meaning is affected by the emotions experienced by learners. For example, students were less likely to engage with others through the BBDBs if they experienced a negative emotional reaction. In contrast, students felt happier to participate with others through talking, and they were more likely to experience reification from which to negotiate further meaning which, in turn, increased their participation. Emotions were therefore an important factor that influenced the extent to which students participated with each other through face-to-face interaction, the BBDBs and other online platforms. This is particularly important in terms of comprehending the underlying factors that impact on the development of online CoPs, especially when educators hope to facilitate their development in blended learning courses.

In comparison to my findings regarding the BBDBs, other research has shown that students can experience positive emotions as well as negative emotions when engaging with online learning (Conrad, 2002, Reilly et al., 2012) such as excitement (Zembylas et al., 2008). Furthermore, other studies show that feelings of anxiety can be reduced as students' confidence to post comments on online forums grows (Kennedy and Gray, 2016). These results align to some extent with my research which found that students who were most comfortable using the BBDBs had more experience of online forums. Another recent study found that students perceived their anxiety to be facilitative rather than debilitative when they were required to communicate with others online as part of an assessed task (Hilliard et al., 2020), which is an interesting finding that could be considered for future practice and research. However, students in my research were not

required to contribute to the BBDBs as part of an assessed task, and they communicated with others through online platforms of their choice.

Other authors have discussed the benefits of asynchronous text-based communication, particularly for students who are more reserved about communicating with others. Arasaratnam-Smith and Northcote (2017) emphasise that asynchronous text-based communication allows students to be in control of what they post and how they present themselves, as well as giving them time to respond thoughtfully to others. They explain that due to the lack of non-verbal cues, reserved people can hide their shyness and therefore be more confident to reach out to others when using text-based communication as opposed to face-to-face situations. Furthermore, they assert that asynchronous written chats do not encourage social pressure for people to fit in which can occur during face-to-face sessions, which could be a benefit in terms of making friendships with others, particularly for those who do not operate so well during face-to-face interaction. However, the current study findings do not support Arasaratnam-Smith and Northcote's (2017) work with regards to most students' use of the BBDBs.

Whilst my findings show support for the idea of human beings and technology interweaving together to create an improved situation (Porter, 2002, Bayne and Ross, 2013) in the sense that students had a better overall experience through them using online platforms they were already connected to in their daily lives, my findings also suggest that there are several intertwined human responses (such as emotions, relationships, power relations, agency, personality and beliefs stemming from prior experiences) which impact on people's engagement with technology. In relation to post humanistic thought, this discovery might suggest that there are elements that are unique to human beings which separate us from technology, and which can influence people's 'entanglement' with the system. For example, students in my research evaluated their environment and responded accordingly, making explicit choices regarding their engagement with technology, based in part on their emotional experiences. The negative emotions experienced influenced people's decisions not to engage further with the BBDBs. Notably, in my research these anxieties were specifically related to engaging with other humans *through* the BB technology. Interestingly,

participants did not report experiencing negative emotions regarding engaging with other elements of the BB technology.

It is worthy of note that studies which show that the intermingling of technology and humans can potentially create an improved situation and experience (Bray, 2013), primarily focus on the entanglement of the human with the machine rather than the entanglement of humans and machines for communication with other humans. For example, Bray (2013) insists that her use of a bespoke word processing tool named Scrivener (which had been designed in a specific way by Blount (2011 in Bray, 2013: 205) after he noticed various limitations of using Microsoft Word when writing), provided her with an improved writing experience as it contained less distractions than her usual word processing tool. Similarly, Bayne and Ross's (2013) research focused closely on the partnership between the student and the machine rather than examining the flow of communication between students with each other through the machine. The authors themselves admit that relationships and communications between people were not visible in the course, or explored in their research. Their work did not explore the social aspect of technology or the development of online communities.

My findings might suggest that when people interweave with technology to communicate with other human beings, the entanglement is more complex than when people interweave with technology as a solo activity. Some authors insist that it is important to consider what is lost, displaced or absent when students are face-to-face with screens rather than with other human beings (Rose, 2017). In her study, Rose (2017) found that 'facelessness' was a theme which led students to experience difficulties when trying to form meaningful, caring relationships with others online. Despite using copious presence-enhancing strategies in the online course, participants reported engaging with faceless others as feeling unreal or feeling they were 'ghostly presences'. Similarly, some students in my research may have experienced 'uncanny' online encounters with the BBDBs, which possibly triggered a negative emotional reaction for them. 'Uncanny' feelings are concerned with sensations of something being familiar whilst at the same time being strange, mysterious and deeply unfamiliar, feelings which Bayne and Jandric (2017: 11) suggest are still a big part of digital

education. In Rose's (2017) study, the use of online presence-enhancing strategies did not compensate for the loss of the face, and both students and tutors reported feeling a greater personal connection to others when communicating through face-to-face interaction, an outcome that concurs with my study findings.

My findings suggest that the entanglement between human beings and technology can be affected by several interconnected human responses such as emotions, relationships, power relations, agency, and the personality and prior experiences of people. The students' active engagement with the BBDBs, and ultimately the development of online communities through the BBDBs, was affected by these interrelated factors. Identifying and understanding the factors that potentially impact on the students' engagement with technology in this way should help to inform the future practice of tutors with regards to supporting e-learning communities.

A Framework for Analysing Literacy Practices

To make sense of my findings in a more holistic way, I used the Literacies for Learning in Further Education (LfLFE) framework (Ivanič et al., 2009) to further analyse the findings. The LfLFE research (Ivanič et al., 2009) was underpinned by the fundamental principle that communication (including literacy) is integral to learning and teaching, and is not a specific set of skills to be leant alone. In this way, the LfLFE framework was appropriate for my research as it offered a worthwhile way to examine the communicative aspects of online pedagogy and practice, providing a way to understand, describe and compare the literacy practices under study in this research.

As discussed in the literature review chapter, the LfLFE project (Ivanič et al., 2009) was a three-year project which was guided by a social view of literacy, which assumes there are many literacy practices situated in different contexts and entwined with various social practices (Street, 2003). In the LfLFE project, college students were found to be proficient communicators who used a range of modes and media for reading and writing (including digital literacy practices) in their daily lives. These everyday practices allowed students to participate with others, and they were purposeful to them. They were also

agentic and self-determined, meaning that the student was in charge of the practice and able to determine the activity, as well as the time and place. Importantly, students identified more closely with their preferred literacy practices than the formal literacy practices they used in college. These practices were referred to as 'vernacular literacy practices' (Ivanič et al., 2009: 22) as they were learned through students participating in purposeful practices in different domains of their life (such as home, college and work), rather than through formal writing and reading practices in an educational context.

From investigating the differences between the literacy practices that students used in and out of college (Satchwell and Ivanič, 2010), several common factors were derived, and these emerged as a list of aspects of literacy practices. This list included the roles and subject-positions inscribed in the practice, the values associated with the practice, participants, audience, purpose, text-type, artefact, medium, mode, content, activity, place, and time/duration. Each of the aspects of literacy practices can be configured in an unlimited number of ways, and Satchwell and Ivanič (2010: 51) explain that any change in how an aspect is configured 'changes the nature of the practice'. Furthermore, each aspect can be changed to increase the students' engagement with the literacy practice in question (Ivanič et al., 2007).

To explore the extent to which each of the aspects could be configured, Satchwell and Ivanič (2010) created a model which mapped the characteristics of the students' chosen literacy practices with the aspects of literacy practices (derived in the LfLFE project). To indicate how each aspect could be experienced by individuals on a continuum, the model included the aspects of literacy practices listed as a central column, and the characteristics of students' everyday literacy practices listed in the left-hand column, with opposite attributes to those characteristics specified in the right-hand column. Satchwell and Ivanič (2010) suggest that for each aspect of literacy practices, there could be several continua in addition to the ones suggested in figure 6. For example, although the 'purpose' aspect is noted as 'clear to ambiguous' on figure 6, another continuum could be added to show 'single-purposed to multi-purposed'. Below is the framework presented by Satchwell and Ivanič (2010):

	Aspects of Literacy Practices	
Experienced as…		**Experienced as…**
Identified with…	**Roles and Subject positions inscribed in the practice**	Not identified with…
Shared…	**Values associated with the practice**	Not shared…
More than one…	**Participants**	One…
Clear…	**Audience**	Ambiguous…
Clear…	**Purpose**	Ambiguous…
Non-linear…	**Text-type**	Linear…
Personal…	**Artefact**	Impersonal…
Multimedia…	**Medium**	Mostly paper…
Multimodal…	**Mode**	Monomodal…
Generative…	**Content**	Non-generative…
Agentic…	**Activity**	Imposed…
Not designated…	**Place**	Designated…
Self-determined…	**Time/Duration**	Specified…

Figure 6: Aspects of literacy practices and illustrative continua of configurations. (Satchwell and Ivanič, 2010: 53)

By analysing two different literacy practices used by the students either within their lives outside of college (i.e. text messaging) or in college as a course expectation (i.e. completing an NVQ logbook), Satchwell and Ivanič (2010) used the framework as a heuristic to understand and compare literacy practices. To represent impressionistically their analysis of how the two different literacy practices were experienced by the students, the authors drew a 'spaghetti' line to show where on the continua students experienced each aspect of the practice. These visual representations gave a 'broad-brush indication' of how the different literacy practices were experienced by the students, which enabled comparisons to be made between them (Satchwell and Ivanič, 2010: 54).

Given that the aforementioned framework can be utilised as an instrument to critique, analyse and compare students' literacy practices (Edwards, 2012), as well as for refining pedagogic practice in educational settings (Satchwell and Ivanič, 2010), the tool was a worthwhile way of further understanding my findings. As discussed in the literature review chapter, this analysis required me to conceptualise online communication as a literacy practice embedded within the social practice of the given educational context (Street, 2003). Therefore, I take the view that online communication between people can be characterised as a complex social engagement with a specific form of literacy. Examining the specific aspects of literacy practices (as outlined in the literacy practice framework) in relation to my results was a useful way of making sense of my findings. Before using the tool, I changed the 'Mostly paper' characteristic to 'Mostly text-based' as this was a more appropriate way to describe the students' experiences on the course under study. I added another continuum to the 'Purpose' aspect of literacy practices to show the range from 'Multipurposed' to 'Single purposed' to reflect the fact that most students in my research had used some practices for more than one purpose. An additional continuum was also added to the 'Time/Duration' aspect, showing the range from 'Fits easily into everyday life' to 'Doesn't fit easily into everyday life' to reflect the reported experiences of the students in my research.

To illustrate how the students experienced each literacy practice, in a similar way to Satchwell and Ivanič (2010) I firstly plotted and then drew a coloured line to indicate where on the continua students experienced each aspect of the practices being compared. Using the framework in this way enabled me to firstly understand how students experienced the literacy practices of face-to-face communication, the practice of using the BBDBs and other online platforms. This analysis then allowed me to compare how students experienced these different literacy practices. The presentation of figure 7 shows how students experienced the practice of using the BBDBs as shown in blue on the figure below:

How Students Experience the BBDBs

Use of the BBDBs		
Aspects of Literacy Practices		
Experienced as…	◄· ►	**Experienced as…**
Identified with…	**Roles and Subject-positions inscribed in the practice** · · · ►	Not identified with…
Shared…	**Values associated with the practice** · · · ►	Not shared…
More than one… ◄· · · · ·	**Participants**	One…
Clear…	**Audience** · · · ►	Ambiguous…
Clear…	**Purpose** · · · ►	Ambiguous…
Multipurposed…	**Purpose** · · · ►	Single purposed…
Non-linear…	**Text-type** · · · ►	Linear…
Personal…	**Artefacts, Tools and Resources** · · · ►	Impersonal…
Multimedia…	**Medium** · · · ►	Mostly text based…
Multimodal…	**Mode** · · · ►	Monomodal…
Generative…	**Content/Topic** · · · ►	Non-generative…
Agentic…	**Activity** · · · ►	Imposed…
Not designated…	**Place** · · · ►	Designated…
Self-determined… ◄· · · · ·	**Time/Duration**	Specified…
Fits easily into everyday life…	**Time/Duration** · · · ►	Doesn't fit easily into everyday life…

Figure 7: How Students Experience the BBDBs

Figure 8 below shows how students experienced face-to-face communication in dedicated sessions as shown in orange:

How Students Experience Face-to-Face Sessions

Face-to-Face Communication		
Aspects of Literacy Practices		
Experienced as...	◄••••••••••••••••••••••••••►	Experienced as...
Identified with...	**Roles and Subject-positions inscribed in the practice**	Not identified with...
Shared...	**Values associated with the practice**	Not shared...
More than one...	**Participants**	One...
Clear...	**Audience**	Ambiguous...
Clear...	**Purpose**	Ambiguous...
Multipurposed...	**Purpose**	Single purposed...
Non-linear...	**Text-type**	Linear...
Personal...	**Artefacts, Tools and Resources**	Impersonal...
Multimedia...	**Medium**	Mostly text based...
Multimodal...	**Mode**	Monomodal...
Generative...	**Content**	Non-generative...
Agentic...	**Activity**	Imposed...
Not designated...	**Place**	Designated...
Self-determined...	**Time/Duration**	Specified...
Fits easily into everyday life...	**Time/Duration**	Doesn't fit easily into everyday life...

Figure 8: How Students Experience Face-to-Face Communication

Figure 9 presented below shows a comparison of how students experienced the practice of face-to-face communication in dedicated sessions (highlighted in orange) compared with the practice of using the BBDBs (highlighted in blue).

How Students Experience Face-to-Face Sessions Compared with the BBDBs

Face-to-Face Communication	Aspects of Literacy Practices	Use of the BBDBs
Experienced as...		Experienced as...
Identified with...	Roles and Subject-positions inscribed in the practice	Not identified with...
Shared...	Values associated with the practice	Not shared...
More than one...	Participants	One...
Clear...	Audience	Ambiguous...
Clear...	Purpose	Ambiguous...
Multipurposed...	Purpose	Single purposed...
Non-linear...	Text-type	Linear...
Personal...	Artefacts, Tools and Resources	Impersonal...
Multimedia...	Medium	Mostly text based...
Multimodal...	Mode	Monomodal...
Generative...	Content	Non-generative...
Agentic...	Activity	Imposed...
Not designated...	Place	Designated...
Self-determined...	Time/Duration	Specified...
Fits easily into everyday life...	Time/Duration	Doesn't fit easily into everyday life...

Figure 9: How Students Experience Face-to-Face Communication Compared with the BBDBs

The blue illustrative line highlights that students did not identify with, or highly value the practice of using text-based discussion through the BBDBs, whereas students closely identified with, and highly valued face-to-face communication. This was probably related to face-to-face communication strongly resonating with their roles as primary school teachers who taught in mostly face-to-face ways. All the students involved had several years of experience of face-to-face teaching in primary school settings. This resonance to their professional practice meant students more clearly understood the purpose of the practice, and they understood the audience in comparison to using the BBDBs (as shown by the orange line). The content and activity of the text-based discussions through the BBDBs was experienced as non-generative and imposed as topics were chosen by staff. In contrast, the content and activity in face-to-face sessions was experienced as both imposed by staff yet generative to a degree as students explored topics together during face-to-face activities. In contrast to the BBDBs, face-to-face

interaction involved the use of multimedia (i.e. paper, text, speech) and multiple modes (i.e. sound, video), and it was multi-purposed in the sense that students could meet others, make friends, share their ideas and practice, listen to speakers as well as engaging with academic tasks, which was viewed by students as stimulating activity. As shown by the coloured lines, the 'Place' aspect was designated for both face-to-face communication and the BBDBs, although students could self-determine when to engage with the BBDBs and for how long, whereas the time and duration was set for face-to-face interaction. The BBDBs did not fit easily into the students' everyday lives in terms of the time taken to use them which impacted on students' engagement with them.

Figure 10 presented below shows how students experienced the practice of using other online platforms such as Facebook (highlighted in yellow).

How Students Experience Other Online Platforms

Use of Other Online Platforms		
Aspects of Literacy Practices		
Experienced as...	◄· ►	Experienced as...
Identified with...	Roles and Subject-positions inscribed in the practice	Not identified with...
Shared...	Values associated with the practice	Not shared...
More than one...	Participants	One...
Clear...	Audience	Ambiguous...
Clear...	Purpose	Ambiguous...
Multipurposed...	Purpose	Single purposed...
Non-linear...	Text-type	Linear...
Personal...	Artefacts, Tools and Resources	Impersonal...
Multimedia...	Medium	Mostly text based...
Multimodal...	Mode	Monomodal...
Generative...	Content/Topic	Non-generative...
Agentic...	Activity	Imposed...
Not designated...	Place	Designated...
Self-determined...	Time/Duration	Specified...
Fits easily into everyday life...	Time/Duration	Doesn't fit easily into everyday life...

Figure 10: How Students Experience Other Online Platforms

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Figure 11 shows a comparison of how students experienced the practice of using other online platforms (highlighted in yellow) with how they experienced using the BBDBs (highlighted in blue).

Use of Other Online Platforms	Aspects of Literacy Practices	Use of the BBDBs
Experienced as...	◄ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ►	Experienced as...
Identified with...	Roles and Subject-positions inscribed in the practice	Not identified with...
Shared...	Values associated with the practice	Not shared...
More than one...	Participants	One...
Clear...	Audience	Ambiguous...
Clear...	Purpose	Ambiguous...
Multipurposed...	Purpose	Single purposed...
Non-linear...	Text-type	Linear...
Personal...	Artefacts, Tools and Resources	Impersonal...
Multimedia...	Medium	Mostly text based...
Multimodal...	Mode	Monomodal...
Generative...	Content/Topic	Non-generative...
Agentic...	Activity	Imposed...
Not designated...	Place	Designated...
Self-determined...	Time/Duration	Specified...
Fits easily into everyday life...	Time/Duration	Doesn't fit easily into everyday life...

Figure 11: How Students Experience Other Online Platforms Compared with the BBDBs

As can be seen from the illustrations shown through the yellow line, most students already understood the purpose of other online platforms and they knew from their previous experiences of using them that they were purposeful in terms of maintaining friendships. Once students had decided which online platform to use they were able to choose how to facilitate these communications, and they were able to use them in multiple ways (e.g. for academic, moral and emotional support), whereas the BBDBs were viewed as single-purposed in the sense that students were expected to communicate with others about academic issues initially suggested by the tutors.

The yellow line above indicates that students selected people and knew their audience based on the relationships they made at face-to-face sessions, whereas with the BBDBs students were unsure of their audience (as highlighted by the blue line). Furthermore, other online platforms allowed students to see more easily who they were communicating with (i.e. through photographs). From following the yellow line it can be seen that students chose the activities and content of the literacy practice and in this way the activity aspect was agentic. In contrast, the activity and content of the BBDBs was mainly chosen by the tutors and therefore imposed on students to some extent. Engaging with the BBDBs mainly involved both reading from a screen and typing using a keyboard through virtual communication, whereas other online platforms offered the students various mediums (e.g. text, images) and modes (e.g. sound, video). The content was therefore seen to be interesting and generative, as it was mostly created by the students themselves (e.g. students shared resources of their choice through other online platforms). In contrast, most students were reluctant to share their ideas through the BBDBs due to the perceived permanence of text-based communication, therefore the content was less generative and interesting to the students.

Using other online platforms meant that students could designate the place and space of their choice, as indicated by the yellow line. Crucially, the evidence from my research suggests that the students' willingness to participate with other online platforms was partly related to the fact that students already used these forms of technology, and they fitted more easily into their everyday lives (as shown by the yellow line) as they were already constantly connected to them through their phones. Activity was therefore agentic as well as being quicker and easier, which was an important factor that impacted on the development of online communties outside of the BB area.

Importantly, most students already valued (and held shared values), identified with, and had a positive relationship with these forms of digital literacy, aspects which Satchwell et al. (2013) suggest are crucial to people's level of meaningful engagement with the literacy practice in question. For instance, platforms such as Facebook were viewed as part of some students' identities as they used them in their personal and professional lives. A study by Brzeski (2017) confirmed the findings of Ivanič et al. (2007) which

revealed that an individual's identity (or their sense of self) impacts on their engagement with literacy practices in terms of the practices they choose to engage with. Students used online platforms which were personally relevant to them. For example, one group chose to utilise Facebook because they used this in their daily lives, whereas another group used a mixture of private emails and text messaging as these were platforms they were accustomed to using. Students were more attuned to online platforms already familiar to them, which concurs with Mannion et al. (2009) who found that students were more engaged with literacy practices that resonated with the literacies they used in their everyday life.

In contrast, the evidence suggests that most students did not value (or hold shared values), identify with, or see a clear purpose for engaging with the BBDBs, which is shown by the blue line above. Although the purpose of them was clearly outlined in terms of academic expectations, students chose other digital literacies which they believed would afford them both academic and emotional support. Moreover, the BBDBs did not resonate in the same way with certain aspects of the students' lives, and they were perceived to be a public (rather than private) space, which partly explains why participation with the BBDBs was resisted.

Figure 12 provides a detailed summary of how students experienced the aspects of face-to-face communication, the BBDBs and other online platforms.

Aspects of a Literacy Practice		
How Students Experience Face-to-Face Communication	**How Students Experience the Blackboard Discussion Boards**	**How Students Experience Other Online Platforms**
Roles and Subject Positions Students identified with, and valued face-to-face interaction.	**Roles and Subject Positions** Students did not identify with, or value using the BBDBs.	**Roles and Subject Positions** Students identified with, and valued other online platforms.
Participants More than one participant.	**Participants** More than one participant.	**Participants** More than one participant.
Audience Students knew and understood their audience.	**Audience** Students were unsure of their audience when using BBDBs.	**Audience** Students knew and understood their audience.
Purpose(s) Students understood the purpose of face-to-face interaction. Face-to-face interaction was multi-purposed (e.g. students shared their ideas and engaged with academic tasks).	**Purpose(s)** Students were unclear of the purpose of engaging with the BBDBs. The BBDBs were single-purposed (e.g. students were expected to communicate about academic issues suggested by the tutors).	**Purpose(s)** Most students understood the purpose of other online platforms. Students used other online platforms in multiple ways (i.e. for academic, moral and emotional support).
Text-type Face-to-face communication was viewed as non-linear as learning was varied and interactive.	**Text-type** Engagement was viewed as linear as BBDBs posts were created and read from beginning to end.	**Text-type** Engagement was viewed as non-linear as students interacted through varied communication pathways.
Artefacts, Tools and Resources Students used pens, paper and notebooks of their choice.	**Artefacts, Tools and Resources** Students used computers to engage with the BBDBs.	**Artefacts, Tools and Resources** Students chose to use a range of personal handheld devices.
Medium Face-to-face communication involved the use of multimedia (i.e. paper, sound, electronic media).	**Medium** Communication was through a single medium (i.e. electronic text based communication through a computer).	**Medium** Engaging with other online platforms involved the use of multimedia (i.e. electronic media and sound).
Mode Multiple modes of communication used (i.e. written text, speech).	**Mode** Engaging with the BBDBs involved a single mode of communication (i.e. text based communication).	**Mode** Multiple modes of communication used (i.e. text, pictures, symbols, speech).
Content Content was mostly imposed as main topics were chosen by staff. Content was also generative as students explored topics together during face-to-face activities.	**Content** The content of the BBDBs was mainly created by the tutors and therefore imposed on students to some extent.	**Content** Content was generative as it was chosen and created by the students (i.e. students chose topics to discuss through other online platforms).
Activity Mostly imposed as paper based tasks were set in face-to-face sessions, yet activity was also agentic as students shared ideas.	**Activity** The activity of the BBDBs was mainly created by the tutors and therefore imposed on students.	**Activity** Activity was agentic as students chose their online platform and how they facilitated their communications.
Place The place was designated.	**Place** The place was designated.	**Place** Students self-determined the place.
Time/Duration Timing was set and face-to-face communication did not fit easily into students' everyday lives	**Time/Duration** Students self-determined when to engage with the BBDBs. The BBDBs did not fit easily into the students' everyday lives in terms of the time taken to use them.	**Time/Duration** Students self-determined when to engage with other online platforms. Other online platforms fitted easily into the students' everyday lives.

Figure 12: A Summary of How Students Experience Aspects of Different Literacy Practices in a Blended Learning Course

Explicitly examining aspects of literacy practices is useful in understanding the complex reasons why students in my research chose to use other online platforms rather than the BBDBs, and how these decisions impacted on the development of online communities. My findings offer support for the idea that when students have some choice within a literacy practice, they are more likely to identify with, value and participate with the practice (Satchwell et al., 2013, Carpenter and Green, 2017). My findings also support the idea that if the relationship between the literacy practice and the individual is negative then engagement with the practice might be compromised (Satchwell et al., 2013) as this seemed to be the case in my research regarding engagement with the BBDBs.

This analysis provided a strong starting point for reflecting on how tutors might modify aspects of their practice to resonate with students' preferred digital literacies. Being aware of the interrelated factors that impact on students' engagement with digital literacies potentially places tutors in a stronger position to understand what drives or prevents students from actively engaging in e-learning communities. Lecturers in the final phase of the LfLFE project were able to identify ways of 'fine-tuning' aspects of their course to create a stronger resonance with literacies that students already understood and valued in their situated contexts (Mannion et al., 2009: 336). In this way, tutors embraced the characteristics of the students' everyday literacies to enhance their learning experience in college (Ivanič et al., 2007).

In light of the main findings and the analysis of the students' experiences of face-to-face communication, the BBDBs and other online platforms in relation to LfLFE framework (Ivanič et al., 2009), the next sub-section explores ways that tutors could fine-tune aspects of the course under study to better support the development of e-learning communities, thus addressing the fourth subsidiary research question.

In which ways can tutors best support the development of an e-learning community?
As students reported not knowing their audience when using the BBDBs, and given that the relationships that developed between students during the face-to-face sessions were the stimulus for them to use online platforms of their choice, holding dedicated

face-to-face tutorials would help to build trusting relationships between group members (Hilliard et al., 2020). Experiencing feelings of friendship and trust is crucial for students to experience a sense of community in online courses (Bikowski, 2007), and my findings support this notion. Bikowski (2007) proposes that online courses should be specifically designed so that students have opportunities to form friendships through tutors modelling effective online communication, setting assignments that require increased social presence or coaching students on how to build relationships. However, my findings show that students naturally formed friendships through being together in a face-to-face way. Tutors could therefore plan for students to have dedicated opportunities to get to know each other through being physically present together, which would enable them to be clearer of their audience when using online platforms. Although this may incur an additional cost to HEIs in terms of venues and time, it could be an investment worth making to support the development of authentic online educational communities wherein students support each other with the challenges of PG study.

Tutors may wish to use face-to-face interaction or online drop-in sessions to 'tune in' to students' prior experiences of technology by trying to understand how they engage with online platforms in their everyday lives. By examining the 'lived practice' of the students and their use of technology, Gourlay and Oliver (2013: 94) (Gourlay and Oliver, 2013)were able to identify areas of difficulty regarding the technology used in students' everyday lives that could be addressed in the future. Educators should therefore pay attention to the characteristics of students' everyday literacy practices in order to 'fine-tune' their practice to ensure it resonates with the practices that students identify with (Satchwell and Ivanič, 2010: 66). Therefore, tutors might modify aspects of their practice to make them more compatible with students' vernacular literacies to maximise opportunities for students to engage with others online.

Holding dedicated face-to-face tutorials could also significantly reduce students' anxieties related to people they do not know (Lawless and Allan, 2004), which was a finding derived from my research. Exploring the role of affect in online learning may reveal 'some of the ''whys'' of the success and failure of online collaborative learning'

(Du et al., 2016: 955), and much can be gained from considering the role of emotions as students become online learners (Zembylas et al., 2008). Helping students to feel more connected to others might help them to deal with negative emotions in online learning (Du et al., 2016) as well as decreasing their levels of apprehension (Hilliard et al., 2020).

When discussing the role of emotions in online learning, Hilliard et al. (2020) suggest that tutors should encourage students to actively use problem solving coping strategies (such as seeking information and taking control) rather than emotion-focused coping (such as seeking emotional support from peers) or avoidance coping strategies (such as disengagement) to ease their anxiety. In their study, students who used problem solving coping strategies reported a greater reduction in their anxiety levels than when using other strategies. However, communication via the BBDBs was a compulsory element of the course in Hilliard et al.'s study, therefore students may have been obliged to use such coping strategies. In contrast, communication through the BBDBs was not compulsory for students in my study, and my findings show that many students naturally eased their anxiety by using emotion-focused coping strategies through seeking emotional support from their peers, which prompted them to communicate through other online platforms. Nevertheless, tutors may wish to explore a range of coping strategies with students to help them to find ways to manage their anxieties regarding engaging with online platforms in the University setting.

Most tutors in my research also felt anxious and frustrated regarding the lack of communication on the BBDBs and they did not seem to know what to do to help, despite trying various strategies. This finding is similar to Regan et al.'s (2012) research which found that online educators felt overwhelmed at times by the task of making online learning meaningful to students. Another way tutors could deal with anxiety in relation to the BBDBs might be to encourage students and tutors to explore their negative feelings together through face-to-face interaction and/or by dedicating an online forum to the topic of emotions. Tutors could devote time on the induction day to discussing the emotional element of online communication and how it can affect everyone in different ways. Holding such discussions might also address tutors' feelings of being less in control when teaching online compared with face-to-face teaching, which was a

factor that impacted on tutors' preferences for face-to-face teaching. These discussions might also allay tutors' concerns about the potential power dynamic between them and the students with regards to the BBDBs as tutors in my research admitted being unsure of how to act to reduce the perceived power imbalance regarding the BBDBs. Furthermore, some students admitted feeling worried about being judged by their tutor when using the BBDBs. Taras (2016) suggests that for students to feel truly empowered they need to have a common forum to question and develop understanding of the issues at hand with their tutors. Incorporating dedicated discussions into face-to-face sessions might empower both tutors and students by reassuring students that tutors share similar feelings to them.

As most students experienced the BBDBs in a negative way and did not use them to communicate with others, my research raises important questions about the value and purpose of the BBDBs as a mode of online communication. In view of the fact that students did not experience the BBDBs as valuable and they were unclear of the purpose of them (as shown in the analysis of the findings against the LfLFE framework from page 154), tutors may wish to reconsider the purpose of them as well as contemplating whether they are a worthwhile online platform to offer to students. Williams (2013: 179) argues that BB provides a 'simulation' of engaging with the online world due to the fact that it is an enclosed system that limits contact to the rest of the web. The VLE Baseline requirements from the University in which this research took place stipulate that the BBDBs should be used as one way of encouraging two-way interactions between students. However, they also suggest that the requirements will evolve in response to feedback from students and staff. Therefore, tutors may wish to explore whether it is feasible to offer a broader selection of online platforms both in and outside of the University environment so that students can use their agency to choose their preferred platform.

By paying closer attention to the characterisitics of students' everyday practices, tutors might be able to fine-tune their pedagogy to achieve closer resonance with their students' favoured digital practices rather than them solely using the BBDBs. For example, tutors might consider offering technology that provides quicker

communication as well as incorporating a wider range of modes (such as video and sound) rather than solely text-based communication. Offering students other types of technology that allow the human voice to be expressed through digital recording might help students to feel more connected (Kennedy and Gray, 2016). Web-conferencing might be another way of supporting students to maintain relationships, as it can be more emotionally rich (Hilliard, 2020) thus promoting relationship development between students (Delmas, 2017). However, as the issue of 'facelessness' in asynchronous environments cannot be easily fixed by employing videoconferencing (Rose, 2017: 28), preserving some face-to-face contact (involving students working together in small groups) would be advisable. Therefore, tutors might wish to give students 'voice and choice in what and how they learn' (Trust and Horrocks, 2019: 113) by offering them the choice of using a wider range of technology, as well as preserving face-to-face sessions specifically aimed at letting students get to know each other.

Whilst tutors in my study harboured feelings of losing control regarding the students' lack of engagement with the BBDBs, these feelings might have stemmed, in part, from them not being aware that students had created their own online groups. Without knowing why students resisted using the BBDBs, tutors may have found themselves to be passive rather than active agents of the circumstances even though they reported making several attempts to improve the situation over the years. My findings will hopefully raise awareness of the complex reasons why students resisted using the BBDBs, which may or may not help to alleviate tutors' feelings of losing control. These new insights may further encourage tutors to understand the actions of the students in relation to their social situation, including the enablements (e.g. having free access to social media platforms) and the perceived constraints of the situation (e.g. the BBDBs were not a compulsory aspect of the course), helping them to determine an appropriate course of future action.

Given that students in my research highly benefitted from using other online platforms in comparison to using the BBDBs, tutors might wish to promote the students' agential power through encouraging them to explore and critique various online platforms and the different purposes they could be used for. In doing so, tutors might feel more

empowered with regards to supporting online communication. Recent studies suggest that students should be encouraged to use platforms such as Facebook to vent their emotions, and to provide each other with social and emotional support (Hilliard et al., 2020). Therefore, tutors might wish to emphasise the importance of students creating their own private online groups as a way of supporting each other through the programme. They may also consider inviting past students to return to talk to new students about their experiences of having valuable support from friends on the course through using various online platforms.

Tutors may benefit from having extra support from the University in terms of training or further research about online communities to develop their own understanding and practice. Whilst most students in my research engaged with private online communication, two students reported that they had not been part of a private online group after meeting others at face-to-face sessions. Whilst one student explained they had not joined the course to make friends or to be part of a community, the other student said they would have liked more tutor input to help the BBDB discussions to develop. This observation might suggest that tutors would benefit from training regarding the pedagogy of e-learning communities. Extra support may help tutors to feel optimistic about the development of online communities, as positive feelings towards online learning are more likely to be fostered by tutors if they feel strong faculty support at an institutional level (Puritz Cook, 2018).

Fostering Caring Relationships

My findings revealed that tutors held concerns about not being able to foster caring relationships with their students when teaching online compared with face-to-face teaching. There is an apparent dearth of literature relating to the nature and role of care in online teaching and learning (Rose and Adams, 2014). As students like to feel a personal connection and empathy from their tutor (Sitzman and Woodard Leners, 2006), offering face-to-face sessions could help tutors to build rapport with their students which may allow them to show they care when communicating through online platforms. Students also feel cared for in online and blended environments if they have

prompt feedback and multiple opportunities for tutor interaction through emails, telephone and face-to-face contact (Sitzman and Woodard Leners, 2006). Furthermore, through tutors being empathetic to the needs and pressures students often face, relationships between tutors and students can be strengthened (Youde, 2020b).

By tutors consistently using such strategies, students will develop trust in their tutor, which is important as a lack of trust in the tutor can be a barrier to some students feeling cared for online (Kim and Schallert, 2011). Tutors who have concerns about not appearing to be caring enough online might also wish to discuss with their students how they can best support caring relationships. Such discussions might forge stronger emotional connections thus allowing tutors to show they care, which would allay their fears and further improve their practice.

Chapter summary

This chapter has presented a detailed discussion of my research questions through close examination of my main findings. The chapter also analysed the main findings against key literature, including Wenger's (1998) CoP theory and the LfLFE framework (Ivanič et al., 2009), which aided understanding and comparison of the practices of face-to-face and online communication, assisting me to identify potential ways for tutors to support online community development. The final chapter presents the conclusions drawn from this research and outlines several recommendations for future research. The contributions made by this research to the pedagogy and theory of online learning are also presented, along with my reflections on the doctoral journey.

CHAPTER 7: CONCLUSIONS AND RECOMMENDATIONS

The conclusions and recommendations which arose from this research are presented in this chapter. The contributions made to the pedagogy and theory of online learning are also presented. I also discuss the authenticity and limitations of my research and several potential ideas for future research. The thesis closes with my reflections on my doctoral journey.

The main research question of this case study was:

What affects engagement in an educational online community?

The overall finding of this research is that students' and tutors' engagement with educational online communities is affected by a combination of several interconnected factors. Some of these factors are distinctly related to being human (such as emotions, relationships, power relations, agency, prior experiences and personality), whilst other factors relate more specifically to the usability of technology (for example, the ease and speed of communication through social media platforms in comparison to the BBDBs). There is evidence to suggest that students' engagement in educational online communities in this case study was influenced by these factors. Additionally, the online communities identified in this research were created using social media platforms, and the evidence indicates that these online communities were a valuable source of professional, academic and personal support for most students involved.

Through a close examination of the main findings, the discussion in Chapter Six addressed each of the four subsidiary research questions developed to address the main research question: **What are the factors that affect students' and tutors' preferences for online and face-to-face learning?; What are the factors that contribute to active engagement in an e-learning community?; What are the factors that discourage active engagement in an e-learning community?; How can tutors best support the development of an e-learning community?** The overall finding and the seven main findings are supported by the themes identified from the TA in Chapter 5.

Conclusions

The conclusions of this research are drawn from the main and subsidiary research questions and the main findings. This thesis identified that people's engagement with online communities is affected by several interrelated factors including emotions, relationships, power relations, agency, the usability of online platforms, people's prior experiences and their personalities. These factors influenced students' and tutors' engagement with both the BBDBs and other online platforms (such as Facebook). Central to my findings is the discovery that student engagement with technology and online communities seems to be grounded in characteristics which are deeply human in nature. These factors (which are closely associated with being human) are crucial to people mutually participating with, and making meaning together online, which are aspects that underpin effective community development (Wenger, 1998).

In this way, this thesis has identified several intertwined 'external factors' related to the social and material aspects of the environment (Illeris, 2009: 12), including students' feelings and motivations, which are crucial to students engaging in learning together online. These identified factors are also closely related to, and support the process of learning (Illeris, 2009) in a broader sense. Therefore, these conclusions may be useful to educators who are designing online or blended learning courses in terms of understanding the factors that are crucial for meaningful engagement and learning.

To further explore student engagement with online communities, this research examined the findings against the LfLFE framework (Ivanič et al., 2009). Through perceiving online communication as a complex social literacy practice and using the LfLFE framework (Ivanič et al., 2009) to analyse how students experienced the practices of face-to-face and online interaction, this research has revealed that students experienced communication through other online platforms (such as Facebook) more favourably than the BBDBs. Students' positive, prior experiences of social media platforms influenced them to engage with technology they were already using in their everyday lives. In consideration of this outcome it can be concluded that when contemplating the use of online platforms, educators should pay close attention to the conditions that will enable students to have a positive experience, depending on the

purpose of the online community. For example, if tutors wish to build an online community wherein students discuss academic issues, then as well as defining the purpose of the community with the students, educators may wish to offer a manageable range of University online platforms which resonate more closely with the technology that students use in their daily lives. In this scenario, students might be more likely to engage with technology they feel more comfortable with, and importantly had some choice in using. Alternatively, if the purpose of the online community was focused on students giving each other valuable peer support then educators may wish to encourage students to use their preferred external online platforms outside of the university environment. I would suggest that whatever the purpose of the online community, educators should consider each of the connected factors identified in this thesis, in particular the human aspects, as these elements seem to encompass all the other issues noted in this research, and they seem to be crucial to student engagement with online communities.

Given that most students in my research highly benefitted from creating their own online communities through engaging with platforms they were already connected with in their everyday lives, it can be concluded that this research provides support for the idea that humans and technology can congregate together to create something better (Bayne and Ross, 2013, Bayne, 2018). Indeed, without communicating through the online platforms they engaged with, the students may not have received the same consistent level of peer support which encouraged them to persist with the challenging level of the course. Nevertheless, this research also identified that certain human responses (e.g. emotions such as anxiety) can impact on people's experiences of technology, which can influence whether they choose to entangle themselves with others through online platforms in the first place. In this sense, the thesis adds to a growing body of literature which seeks to understand how humans are inextricably linked with non-human elements such as technology (Bayne and Jandric, 2017).

In conclusion, this research demonstrates that people's engagement with online communities is extremely complex and cannot be attributed to one specific area (such as technology). Whilst online platforms both within and outside of the BB area have

advanced since the outset of this research, I would argue that the issues raised in my research are still highly relevant to the current landscape regarding online learning and communication. Furthermore, this thesis suggests that the issues raised in my research are equally as important as the particular online platform being used as people's engagement seems to be grounded in attributes which are deeply human in nature. Educators should therefore consider both human responses (such as emotions, relationships, power relations, agency, people's prior experiences and their personalities) as well as non-human factors (such as the usability of technology) when designing online and blended learning programmes.

Contribution to Practice and Theory

The findings of this research contribute to the pedagogy of e-learning in terms of identifying several interconnected elements (e.g. emotions, relationships, power relations, agency, prior experiences, personality and the ease and speed of communication through social media platforms in comparison to the BBDBs) which impact on students' engagement with online platforms and online educational communities. Given that the educational online communities identified in this research were created using social media platforms, and these online communities were a valuable source of professional, academic and personal support for most students involved, tutors might closely consider the everyday digital literacy practices of their students. The current Covid-19 pandemic has undoubtedly impacted upon teaching and learning in HEIs in terms of the way courses are delivered and the ways tutors teach (Bryson and Andres, 2020). The new insights derived from this research hold important implications for future practice in this regard as they could help educators who are designing blended learning courses to better understand the factors that impact on the development of online learning communities. More specifically, the findings highlight the importance of educators in HEIs considering the emotional aspects of communicating online, as well as focusing on the technological aspects. Additionally, these findings may inform future guidance at University A in relation to the pedagogic practice of developing online learning communities.

Through conceptualising online communication as a social literacy practice (Street, 2003) and using the LfLFE framework (Ivanič, 2009), this study increases understanding of how students experience different aspects of the practices of face-to-face and online communication (as discussed in chapter 6). In this way, this research extends the LfLFE framework (Ivanič et al., 2009) to include online practices that were not considered in the original study. My research has also shown that this updated version of LfLFE framework can be applied into a different educational context, and used as a tool in a HE setting, to support educators to examine and compare different online literacy practices to inform their online practice. This updated version of the LfLFE framework could also be applied into other different educational contexts, and used by other educators to aid them with closely examining aspects of their online practice. Whilst educators should always take a holistic view of student engagement with online communities, by identifying individual factors that affect online engagement, educators may be able to change one or more aspects to increase student engagement with online communities.

This thesis also contributes to gaps in literature regarding the impact of affective factors on tutors' and students' engagement with online communication, which Reilly et al. (2012) argue is limited in comparison to literature which explores aspects of cognition in face-to-face courses compared with e-learning. Whilst attention to the emotional elements of online learning has increased substantially in the last ten years, much of this research has focused on individual learning situations rather than social aspects of e-learning (Hilliard et al., 2019). Furthermore, there is a dearth of literature in terms of the emotions of geographically dispersed adult learners who may be in full or part-time employment (Hilliard et al., 2019). In this way, my research contributes to the body of knowledge regarding the role of emotions on student engagement with online communication for PG, professional learners who are in full-time employment.

This thesis also contributes to the body of literature regarding post-humanism which views 'humans as entangled with the world' (Bayne and Jandric, 2017: 14). Research on this matter has so far focused on the partnership between the student and the machine rather than examining the flow of communication between students with each other

through the technology. My findings imply that when people interweave with technology to communicate with other human beings, the entanglement is more complex than when people interweave with technology as a solo activity. By exploring communication between students through online platforms, and identifying that several interconnected human responses (such as emotions, relationships, power relations, agency and the personality and prior experiences of people) impact on people's entanglement with others through online platforms, this thesis increases understanding of the complexity of the relationship between students and technology.

Additionally, my findings offer a contribution to learning theories which consider the conditions, resources and factors needed for people to engage their minds (Bruner, 2009) through identifying several significant factors which impact on people's engagement with others through technology. More specifically, my findings further contribute to Wenger's CoP theory (1998: 51) in relation to understanding the factors that impact on participation, reification and the creation of 'meaningful experiences' when using technology to facilitate online communication between students, all of which underpin community development (Wenger, 1998). Wenger et al. (2009) suggest that technology provides new ways for people to connect and participate in communities. However, designing social infrastructures that foster meaningful engagement is a challenging yet crucial task (Wenger, 1998). Wenger (1998) suggests that educators need to make early decisions about appropriate provision to encourage participation, reification and the negotiation of meaning. The factors highlighted in my findings (i.e. emotions, relationships, power relations, agency, prior experiences and personality) offer a contribution to theory and practice in terms of drawing attention to important aspects to consider at the course design stage, to encourage meaningful engagement when people are communicating online. Based upon factors raised in my findings, educators could make small changes to practice when they are designing online and blended learning courses in order to encourage, support and nurture meaningful online engagement between students. For example, educators might consider students' emotions when they are engaging with online platforms, as well as giving students some choice with the online platforms and the people they communicate with. My findings could be crucial for educators to create the conditions required to enhance

participation, reification and the creation of meaningful experiences (Wenger, 1998) online, which could enhance the development of effective online communities.

Recommendations

The following recommendations are drawn from the study findings and conclusions. I have made separate recommendations for HEIs and for educators who teach on similar blended learning programmes. I have also outlined several directions for future research that emerged from this study.

For Higher Education Institutions (HEIs)

Face-to-Face Interaction (where possible)

- The main findings support the notion of holding regular face-to-face days within blended learning programmes to encourage students to communicate with others online (Bikowski, 2007) and to support the development of online educational communities.

- Finding 2 suggests that the relationships built between students during face-to-face sessions were crucial to them feeling secure and confident to engage with others online. Finding 4 suggests that students chose to engage online with people they had met at face-to-face sessions, therefore, HEIs should prioritise designing online programmes which incorporate dedicated face-to-face sessions specifically aimed at letting students bond with each other.

Further Training for Educators

- HEIs should consider offering support for tutors to further explore the relationship between affect and student engagement with online platforms as Finding 1 shows that the students' negative emotional reaction to the BBDBs impacted on their engagement with them, which affected the development of online educational communities.

- HEIs should consider providing more explicit guidance and training regarding the pedagogy of building online communities to help tutors to better understand the factors that impact on students' engagement with online platforms.

Face-to-Face Interaction and Online Drop-In Sessions

- Tutors may wish to invite students to attend face-to-face and/or face-to-face online drop-in sessions as another way for students to get to know their peers as Finding 1 highlights the importance of students building relationships with others to build their confidence to communicate through online platforms.

- Tutors should consider using these sessions to get to know the students' personalities and their prior experiences of engagement with online platforms as Finding 7 suggests that students' believed these aspects affected their engagement with online platforms.

Consideration of Emotions and/or Feelings

- In consideration of the effects of students' negative emotional reactions on their engagement with the BBDBs as outlined in Finding 2, tutors should use face-to-face sessions to explore how people feel with regards to engaging with the online platforms offered, paying particular attention to any negative emotions experienced.

- Tutors may also wish to share their own emotions regarding technology with students, which might minimize the perceived power dynamic between tutors and students which may impact on students' engagement with the BBDBs (as highlighted in Finding 3). These discussions could reduce people's anxieties regarding online interaction and reassure students that tutors can also experience the same emotions.

- In consideration of the feedback from the students and tutors regarding the BBDBs, tutors should re-examine the overall value of using them.

The Choice of Other Online Platforms

- Finding 5 which relates to students using social online platforms to create small online communities supports the notion of tutors offering students the chance to use alternative online platforms (other than the BBDBs) which resonate with their everyday practices of online communication.

- The recommendation would be to invite students to choose from a wider range of online platforms in negotiation with their tutor, as Finding 4 suggests that student agency was a factor that supported students' engagement with online platforms.

- Allowing students to have some choice in the technology they use to ensure they have a positive relationship with it might increase their engagement with online platforms.

- Letting students use their agency to select their preferred online platform and to choose the people they participate with is strongly recommended as a way of supporting the development of online educational communities.

Future Directions for Research

Several potential areas for further research have been identified and these are outlined below.

- Carrying out further research into the role of emotions in online communication could increase understanding of how people's emotional state impacts on their engagement with others through online platforms.

- Further research into how learners support each other through their engagement with social media platforms could add to the understanding of the benefits and limitations of using such platforms to develop online educational communities, as well as supporting tutors to understand the needs of their students.

- In my research it was noted that two small groups of students who supported each other through using other online platforms achieved distinction grades. Therefore, another pertinent area for further research would be to explore the impact of using online platforms outside of the HEI in terms of supporting students' academic achievement.

- In consideration of the finding that tutors in my research reported experiencing negative emotions when engaging with online platforms both within and outside of the University setting, further research is required to explore the views of tutors.

- My secondary findings highlighted tutors' concerns about not feeling able to show they value and care for students when communicating with them through online platforms, which would be another interesting area to pursue for further research.

- Finally, further research is warranted to explore the posthumanistic idea that when humans and technology are entangled in a purposeful way, they can create an improved situation (Bayne and Ross, 2013). Whilst several studies have shown this to be the case (Bayne and Ross, 2013, Bray, 2013), these studies focus on the entanglement between the human and the machine. Further research into the intermingling of humans with machines to communicate with other humans could increase understanding of the complexity of factors that impact on people's engagement with technology when interacting with other humans.

Strengths and Limitations of My Research

The following section outlines several strengths and limitations of my study. I acknowledge that the results of this thesis represent my interpretation of the data and the findings, and I recognise that this research could have been interpreted in different ways. However, I have tried to maintain a 'vigorous interpretation' (Stake, 1995: 9) of the case by triangulating the data, spending analytic time searching for meaning, and acknowledging my own subjectivity throughout the research process by recognising my own beliefs, values and biases. In this way, I have tried to preserve and represent the 'multiple realities' (Stake, 1995: 12) and the different views of the participants in an honest and genuine manner to produce a detailed representation of this case. It is my hope that I have demonstrated the trustworthiness of my research throughout this thesis, and the reader is convinced of the authenticity of these findings.

As highlighted in chapter 3, I initially considered examining the BBDB posts made by the students as a data collection method. However, the brief nature of the students' posts negated their usefulness, therefore I decided against using these as a data source. If the BBDB posts had been more detailed and more extensive, this information might have been a worthwhile data source, however their brevity indicated the nature of the initial research issue. Nevertheless, the fact that this research explored the experiences and views of the students and tutors regarding their engagement with the BBDBs is a particular strength of the study as it allowed for a deep exploration of the complexities of the situation.

The findings represented in this thesis relate to three tutors and twenty students and as such they may not be generalisable across other educators and students in other contexts. However, they could be relatable to other tutors, students and other blended learning programmes. My hope is that I have presented enough detail so that my readers can relate to the research and to the findings of this study. I hope that educators in the setting where the research took place, and educators in similar situations would be interested in these findings and be able to relate to them in ways that will help them to adapt and improve their practice in this regard.

Reflections on My EdD Journey and Closing Thoughts

The closing section presents my reflections on the research process and my journey through the doctorate.

My initial aim was to explore the factors that affect students' and tutors' engagement in educational communities through the University online platform (i.e. the BBDBs). As a tutor on the course, the focus of this study stemmed from my own observations over several years that student discussion through the BBDBs was low, and from my concerns that students might be experiencing a limited sense of community in the blended learning course. My epistemological stance of interpretivism enabled me to understand the thoughts of the participants regarding certain issues (Bassey, 1999) such as their preferences for, and their engagement with different learning platforms. Through the participants' generous contributions, I was able to explore the perceptions and experiences of both the students and tutors, which produced the data set that resulted in my findings. This process provided me with a detailed insight into the elements that impact on the development of online communities.

Case study seemed an appropriate methodology given that I was interested in understanding the complexity of interactions between human communication and other factors (Cohen et al., 2007) such as technology within the boundaries of the given context. My position as practitioner researcher and partial insider allowed me to get closer to the situation (Costley et al., 2010), and using qualitative methods such as interviews and FGs enabled me to explore the 'multiple views of the case' (Stake, 1995:

64). Using a layered approach to data collection meant that the data gathering and analysis happened in tandem which allowed me to probe more deeply about issues that had arisen in previous interviews, adding depth to my research. Using thematic analysis enabled me to answer my research questions through searching for patterns and themes across the data set (Braun and Clarke, 2006) and examining the similarities and differences in the participants' perceptions (Crowe et al., 2015), which allowed me to gain further insight into their experiences.

The doctoral journey has been particularly enlightening for me in terms of increasing my ability to be reflective and reflexive in my role of practitioner researcher, which is crucial in terms of increasing the quality and trustworthiness of qualitative research (Macbeth, 2001, Finlay, 2002, Henwood, 2008, Day, 2012, Mitchell et al., 2018). Through practising reflexivity I have become aware of the underlying power I have as a researcher with regards to every aspect of the research process including the direction the research takes, my participation in the construction of the data and the way the research is presented. Dealing with large quantities of data and diverse theories has been a challenging aspect for me but an enlightening part of the learning process. By using critically reflexive questioning (Cunliffe, 2004) as a tool to examine my assumptions, my subjectivity and the influence of my position on my research, I hope that I have demonstrated my accountability and produced a genuine piece of research that convinces my readers of its authenticity.

As a tutor teaching on a blended learning course, my confidence has also increased with regards to understanding how students might be supported to engage with online platforms to communicate with others. I also have a deepened appreciation of online communication and its potential to provide PG professional learners with the types of support (i.e. academic, moral and emotional support) that help them to persist with challenging levels of study. Furthermore, the doctoral journey has made me reflect upon my assumptions about the nature of learning more broadly. Whilst I have been an educator for many years, I have come to realise that prior to beginning this journey, due to my previous experiences of being a primary school teacher who was very focused on pupil outcomes, I had not fully appreciated the intricacies and implications of the

external elements that are closely related to, and support learning. Engaging with this EdD research has enhanced my understanding of the conditions which are integral to learning such as the interaction between the learner and their environment (Illeris, 2009). Notably, my research has highlighted to me that human responses such as emotions cannot be separated from learning and therefore educators need to give thought to these important factors when planning online learning courses.

I hope these findings provide a stimulus for critical discussions about how educators can best support future students to participate with, and benefit from engagement in online communities. I believe this research will have a positive impact on my practice, and it may have resonance with other tutors and students engaging with similar blended learning courses.

REFERENCE LIST

ADVISORY COMMITTEE ON MATHEMATICS EDUCATION, 2013. Empowering teachers: success for learners. [online]. (November). Available from: acme-uk.org.

ARASARATNAM-SMITH L. NORTHCOTE M., 2017. Community in Online Higher Education: Challenges and Opportunities. *The Electronic Journal of e-Learning*. 15 (2), pp. 188–198.

ARCHER, M.S., 2000. *Being human: the problem of agency.* Cambridge: Cambridge University Press.

ARCHER, M.S., 2007. *Making our way through the world. Human Reflexivity and Social Mobility*. Cambridge: Cambridge University Press.

ARMSTRONG, J., 2010. Naturalistic Inquiry. In: N.J. SALKIND, ed. *Encyclopedia of research design*. Thousand Oaks, CA: Sage. pp. 880–885.

ATKINS, L. and WALLACE, S., 2012. *Qualitative Research in Education*. London: Sage Publications.

ATKINS, S., YAN, W., MERAGIA, E., MAHOMED, H., ROSALES-KLINTZ, S., SKINNER, D., and ZWARENSTEIN, M., 2016. Student experiences of participating in five collaborative blended learning courses in Africa and Asia: A survey. *Global Health Action*. 9, pp. 1–10.

ATTRIDE-STIRLING, J., 2001. Thematic networks: An analytic tool for qualitative research. *Qualitative Research*. 1 (3), pp. 385–405.

AVALOS, B., 2011. Teacher professional development in Teaching and Teacher Education over ten years. *Teaching and Teacher Education*. 27 (1), pp. 10–20.

BACH, S., HAYNES, P., and LEWIS SMITH, J., 2006. *Online Learning and Teaching in Higher Education*. Berkshire: Open University Press.

BACSICH, P., 2010. Benchmarking E-learning in UK Universities: Lessons from and for the International Context. *International Council for Open and Distance Education*. 4 (1), pp. 9–17.

BAEK, E.-O. and SCHWEN, T.M., 2006. How to Build a Better Online Community, Cultural Perspectives. *Performance Improvement Quarterly*. 19 (2), pp. 51–68.

BARAN, B. and CAGILTAY, K., 2010. Motivators and Barriers in the Development of Online Communities of Practice. *Eurasian Journal of Educational Research*. Spring (39), pp. 79–96.

BARBOUR, R.S. and SCHOSTAK, J., 2011. Interviewing and Focus Groups. In: B. SOMEKH and C. LEWIN, eds. *Theory and Methods in Social Research*. London: Sage Publications. pp. 61–68.

BARGE, J.K., 2004. Reflexivity and Managerial Practice. *Communication Monographs*. 71 (1), pp. 70–96.

BARTON, D. and HAMILTON, M., 1998. *Local Literacies: Reading And Writing In One Community*. London and New York: Routledge.

BARTON, D. and HAMILTON, M., 2012. *Local Literacies: Reading And Writing In One Community*. London and New York: Routledge Re-issued as 'Routledge Linguistics Classic' with new chapter, 2012.

BASSEY, M., 1999. *Case Study Research in Educational Settings*. Buckingham: Open University Press.

BATHMAKER, A.M. and HARNETT, P., 2010. *Exploring Learning, Identity and Power through Life History and Narrative Research*. Abingdon: Routledge.

BAYNE, S., 2018. Posthumanism: A Navigation Aid for Educators. *Journal for Research*

and Debate. 1 (2), pp. 1–7.

BAYNE, S. and JANDRIC, P., 2017. From anthropocentric humanism to critical posthumanism in digital education. *Knowledge Cultures*. 5 (2), pp. 197–216.

BAYNE, S. and ROSS, J., 2013. Posthuman literacy in heterotopic space: a pedagogical proposal. In: R. GOODFELLOW and M.R. LEA, eds. *Literacy in the Digital University. Critical Perspectives on Learning, Scholarship, and Technology.* London: Routledge. pp. 95–110.

BAZELEY, P., 2007. *Qualitative Data Analysis with NVivo.* London: Sage Publications.

BEATY, L., ALLAN, C., and READ, M., 2005. HEFCE strategy for e-learning. [online]. Available from: https://www.immagic.com/eLibrary/ARCHIVES/GENERAL/HEFCE_UK/H050300E.pdf.

BELL, J., 1999. *Doing Your Research Project: A Guide for First-time Researchers in Education and Social Science*. 3rd ed. Buckingham: Open University Press.

BELL, J. and WATERS, S., 2014. *Doing Your Research Project: A Guide for First-time Researchers*. 6th ed. Berkshire: Open University Press.

BETT, H. and MAKEWA, L., 2020. Can Facebook groups enhance continuing professional development of teachers? Lessons from Kenya. *Asia-Pacific Journal of Teacher Education*. 48 (2), pp. 132–146.

BHAGAT, K.K., WU, L.Y., and CHANG, C.-Y., 2019. The impact of personality on students' perceptions towards online learning. *Australasian Journal of Educational Technology*. 35 (4), pp. 98–108.

BIKOWSKI, D., 2007. Internet Relationships: Building Learning Communities through Friendship. *Journal of Interactive Online Learning*. 6 (2), pp. 131–141.

BOELENS, R., DE WEVER, B., and VOET, M., 2017. Four key challenges to the design of blended learning: A systematic literature review. *Educational Research Review*. 22, pp. 1–18.

BOOTH, S.E. and KELLOGG, S.B., 2015. Value creation in online communities for educators. *British Journal of Educational Technology*. 46 (4), pp. 684–698.

BOUD, D., 2001. Using Journal Writing to Enhance Reflective Practice. In: L.M. ENGLISH and M.A. GILLEN, eds. *Promoting Journal Writing in Adult Education. New Directions for Adult and Continuing Education*. San Franscisco: Jossey Basss. pp. 9–18.

BRAUN, V. and CLARKE, V., 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology.* (3), pp. 77–101.

BRAUN, V. and CLARKE, V., 2013. *Successful Qualitative Research: A Practical Guide For Beginners*. London: Sage Publications.

BRAY, N., 2013. Writing with Scrivener: A Hopeful Tale of Disappearing Tools, Flatulence, and Word Processing Redemption. *Computers and Composition*. 30, pp. 197–210.

BRINKMANN, S., 2013. *Qualitative Interviewing, Understanding Qualitative Research*. Oxford: Oxford University Press.

BRITISH EDUCATIONAL RESEARCH ASSOCIATION, 2018. *Ethical Guidelines for Educational Research* [online]. 4th ed. London: BERA. Available from: https://www.bera.ac.uk/researchers-resources/publications/ethical- guidelines-for-educational-research-2018%0A.

BROOKFIELD, S., 1995. *Becoming a Critically Reflective Teacher.* California: Jossey-Bass

Inc.

BRUNER, J., 2009. Culture, mind and education. In: K. ILLERIS, ed. *Contemporary theories of learning: Learning theorists … in their own words*. London: Routledge. pp. 159–168.

BRYSON, J.R. and ANDRES, L., 2020. Covid-19 and rapid adoption and improvisation of online teaching: curating resources for extensive versus intensive online learning experiences. *Journal of Geography in Higher Education* [online]. pp. 1–16. Available from: https://www.tandfonline.com/doi/full/10.1080/03098265.2020.1807478.

BRZESKI, A., 2017. Literacy practices, identity and engagement: integrating multifaceted identities of college students to support learning. *Research in Post-Compulsory Education*. 22 (3), pp. 391–408.

CALLAGHAN, G. and FRIBBANCE, I., 2016. The use of Facebook to build a community for distance learning students: a case study from the Open University. *Open Learning: The Journal of Open, Distance and e-Learning*. 31 (3), pp. 260–272.

CAMBRIDGE DICTIONARY, 2019. *Meaning of Human Nature in English* [online]. [online]. Available from: https://dictionary.cambridge.org/dictionary/english/human-nature.

CAMPBELL, E. and LASSITER, L.E., 2014. *Doing Ethnography Today: Theories, Methods, Exercises*. West Sussex: Wiley Blackwell.

CAMUS, M., HURT, N.E., LARSON, L.R., and PREVOST, L., 2016. Facebook as an Online Teaching Tool: Effects on Student Participation, Learning, and Overall Course Performance. *College Teaching*. 64 (2), pp. 84–94.

CARPENTER, J.P. and GREEN, T.D., 2017. Mobile instant messaging for professional learning: Educators' perspectives on and uses of Voxer. *Teaching and Teacher Education*. 68, pp. 53–67.

CARPENTER, J.P. and KRUTKA, D.G., 2015. Engagement through microblogging: educator professional development via Twitter. *Professional Development in Education*. 41 (4), pp. 707–728.

CHADDERTON, C. and TORRANCE, M., 2011. Case Study. In: B. SOMEKH and C. LEWIN, eds. *Theory and Methods in Social Research*. London: Sage Publications. pp. 53–60.

CHALMERS, L. and KEOWN, P., 2006. Communities of practice and professional development. *International Journal of Lifelong Education*. 25 (2), pp. 139–156.

CLARKE, V. and BRAUN, V., 2013. Teaching thematic analysis: Over-coming challenges and developing strategies for effective learning. *The Psychologist*. 26 (2), pp. 120–123.

CLOUGH, P. and NUTBROWN, C., 2012. *A Student's Guide to Methodology*. 3rd ed. London: Sage Publications.

COFFEY, A. and ATKINSON, P., 1996. *Making Sense of Qualitative Data: Complementary Research Strategies*. London: Sage Publications.

COHEN, L., MANION, L., and MORRISON, K., 2007. *Research Methods in Education.* 6th ed. London: Routledge.

CONRAD, D., 2002. Engagement, Excitement, Anxiety, and Fear: Learners' Experiences of Starting an Online Course. *The American Journal of Distance Education*. 16 (4), pp. 205–226.

CORDINGLEY, P., HIGGINS, S., GREANY, T., BUCKLER, N., COLES-JORDAN, D., CRISP, B.,

SAUNDERS, L., and COE, R., 2015. Developing Great Teaching: Lessons from the international reviews into effective professional development. *Teacher Development Trust*.

COSTLEY, C., ELLIOT, G.C., and GIBBS, P., 2010. *Doing Work-Based Research. Approaches to Enquiry for Insider-Researchers*. London: Sage Publications.

COUSIN, G., 2009. *Researching Learning in Higher Education: An Introduction to Contemporary Methods and Approaches*. Oxon: Routledge.

CRAMP, A. and LAMOND, C., 2016. Engagement and kindness in digitally mediated learning with teachers. *Teaching in Higher Education*. 21 (1), pp. 1–12.

CROTTY, M., 1998. *The Foundations of Social Research: Meaning and Perspective in the Research Process*. London: Sage Publications.

CROWE, M., INDER, M., and PORTER, R., 2015. Conducting qualitative research in mental health: Thematic and content analyses. *Australian and New Zealand Journal of Psychiatry*. 49 (7), pp. 616–623.

CUDDAPAH, J.L. and CLAYTON, C.D., 2011. Using Wenger's Communities of Practice to Explore a New Teacher Cohort. *Journal of Teacher Education*. 62 (1), pp. 62–75.

CUNLIFFE, A.L., 2004. On Becoming a Critically Reflexive Practitioner. *Journal of Management Education*. 28 (4), pp. 407–426.

DANIEL, J.S., 1996. *Mega-Universities and Knowledge Media: Technology Strategies for Higher Education*. London: Kogen Page Limited.

DAVIS, F.D., 1989. Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*. 13 (3), pp. 319–340.

DAVIS, K., 2015. Teachers' perceptions of Twitter for professional development. *Disability and Rehabilitation*. 37 (17), pp. 1551–1558.

DAY, S., 2012. A Reflective Lens: Exploring Dilemmas of Qualitative Methodology Through the Concept of Reflexivity. *Qualitative Sociology Review*. VIII (1), pp. 60–85.

DEARING, R., 1997. *The Dearing Report (1997): Higher Education in the learning society. Main Report* [online]. Available from: http://www.educationengland.org.uk/documents/dearing1997/dearing1997.html .

DEARING, R., 2007. Afterword. In: D. WATSON and M. AMOAH, eds. *The Dearing Report: Ten Years On*. London: Institute of Education. pp. 175–179.

DEDE, C., KETELHUT, D.J., WHITEHOUSE, P., BREIT, L., and MCCLOSKEY, E.M., 2009. A Research Agenda for Online Teacher Professional Development. *Journal of Teacher Education*. 60 (1), pp. 8–19.

DELMAS, P.M., 2017. Using VoiceThread to Create Community in Online Learning. *TechTrends*. 61, pp. 595–602.

DENSCOMBE, M., 2010. *The Good Research Guide for Small Scale Social Research Projects*. Berkshire: Open University Press.

DENZIN, N.K. and LINCOLN, Y.S., 2011. *The SAGE Handbook of Qualitative Research*. 4th ed. London: Sage Publications.

DEPARTMENT FOR EDUCATION, 2016. *Standard for teachers' professional development* [online]. Available from: www.gov.uk/government/publications.

DONMOYER, R., 2000. Generalizability and the Single-Case Study. In: R. GOMM, M. HAMMERSLEY and P. FOSTER, eds. *Case Study Method*. London: Routledge. pp. 45–68.

DRAKE, P., 2010. Grasping at methodological understanding: A cautionary tale from insider research. *International Journal of Research and Method in Education*. 33 (1), pp. 85–99.

DRAKE, P. and HEATH, L., 2011. *Practitioner Research at Doctoral Level. Developing Coherent Research Methodologies*. Abingdon: Routledge.

DU, J., ZHOU, M., XU, J., and LEI, S.S., 2016. African American female students in online collaborative learning activities: The role of identity, emotion, and peer support. *Computers in Human Behavior*. 63, pp. 948–958.

DUNCAN-HOWELL, J., 2009. Online Professional Communities: Understanding the Effects of Membership on Teacher Practice. *The International Journal of Learning*. 16 (5), pp. 601–613.

EDWARDS, M., 2012. Literacy practices: using the literacies for learning in further education framework to analyse literacy practices on a post-compulsory education and training teacher education programme. *Student Engagement and Experience Journal*. 1 (1), pp. 1–10.

ELKJAER, B., 2009. Pragmatism: a learning theory for the future. In: K. ILLERIS, ed. *Contemporary Theories of Learning, Learning Theorists...In their own words.* London: Routledge. pp. 74–89.

ELLIS, C., 2007. Telling Secrets, Revealing Lives: Relational Ethics in Research with Intimate Others. *Qualitative Inquiry*. 13 (1), pp. 3–29.

FINLAY, L., 2002. Negotiating the swamp: The opportunity and challenge of reflexivity in research practice. *Qualitative Research*. 2 (2), pp. 209–230.

FLYVBJERG, B., 2006. Five Misunderstandings About Case-Study Research. *Qualitative Inquiry*. 12 (2), pp. 219–245.

FROSH, S., 2011. *Feelings*. London: Routledge.

GARRISON, D.R., ANDERSON, T., and ARCHER, W., 2000. Critical Inquiry in a Text-Based Environment: Computer Conferencing in Higher Education. *The Internet and Higher Education*. 2 (2–3), pp. 87–105.

GARRISON, D.R. and KANUKA, H., 2004. Blended learning: Uncovering its transformative potential in higher education. *The Internet and Higher Education*. 7, pp. 95–105.

GASPARIČ, R.P. and PEČAR, M., 2016. Analysis of an Asynchronous Online Discussion as a Supportive Model for Peer Collaboration and Reflection in Teacher Education. *Journal of Information Technology Education: Research*. 15, pp. 377–401.

GEERTZ, C., 1973. *The Interpretation of Cultures: Selected Essays*. New York: Basic Books.

GLENAFFRIC LTD, 2008. *Review of the 2005 HEFCE Strategy for e-Learning. A report to HEFCE by Glenaffric Ltd*. Bristol: Higher Education Funding Council for England.

GOURLAY, L. and OLIVER, M., 2013. Beyond 'the social': digital literacies as sociomaterial practice. In: R. GOODFELLOW and M.R. LEA, eds. *Literacy in the Digital University. Critical Perspectives on Learning, Scholarship, and Technology.* London: Routledge. pp. 79–95.

GRIFFIN, L. and ROY, J., 2019. A great resource that should be utilised more, but also a place of anxiety: student perspectives on using an online discussion forum. *Open Learning: The Journal of Open, Distance and e-Learning* [online]. Available from: https://doi.org/10.1080/02680513.2019.1644159.

GRIX, J., 2010. *The Foundations of Research*. 2nd ed. Hampshire: Palgrave MacMillan.

GUBA, E.G. and LINCOLN, Y.S., 1994. Competing paradigms in qualitative research. In: N.K. DENZIN and Y.S. LINCOLN, eds. *The Handbook of qualitative research*. Thousand Oaks, CA: Sage Publications. pp. 105–117.

GUBA, E.G. and LINCOLN, Y.S., 2005. Paradigmatic Controversies, Contradictions and Emerging Confluences. In: N.K. DENZIN and Y.S. LINCOLN, eds. *The SAGE Handbook of Qualitative Research*. Thousand Oaks, CA: Sage Publications. pp. 191–215.

GUILLEMIN, M. and GILLAM, L., 2004. Ethics, Reflexivity, and 'Ethically Important Moments' in Research. *Qualitative Inquiry*. 10 (2), pp. 261–280.

GULDBERG, K. and MACKNESS, J., 2009. Foundations of communities of practice: Enablers and barriers to participation. *Journal of Computer Assisted Learning*. 25, pp. 528–538.

HENWOOD, K., 2008. Qualitative Research, Reflexivity and Living with Risk: Valuing and Practicing Epistemic Reflexivity and Centering Marginality. *Qualitative Research in Psychology*. 5 (1), pp. 45–55.

HILLIARD, J., KEAR, K., DONELAN, H., and HEANEY, C., 2020. Students' experiences of anxiety in an assessed, online, collaborative project. *Computers & Education*. 143, pp. 1–15.

HILLIARD, J., ROSEWELL, J., KEAR, K., DONELAN, H., and HEANEY, C., 2019. Students' feelings in social and collaborative learning: some case studies. In: *The Online, Open and Flexible Higher Education Conference: Blended and online education within European university networks, 16-18 Oct 2019, UNED, Madrid.*

HOLMES, B., 2013. School Teachers' Continuous Professional Development in an Online Learning Community: Lessons from a case study of an eTwinning Learning Event. *European Journal of Education*. 48 (1), pp. 97–112.

HOU, H., 2015. What makes an online community of practice work? A situated study of Chinese student teachers' perceptions of online professional learning. *Teaching and Teacher Education*. 46, pp. 6–16.

HUGHES, M., VENTURA, S., and DANDO, M., 2007. Assessing social presence in online discussion groups: A replication study. *Innovations in Education and Teaching International*. 44 (1), pp. 17–29.

ILLERIS, K., 2009. A comprehensive understanding of human learning. In: K. ILLERIS, ed. *Contemporary Theories of Learning, Learning Theorists...In their own words.* London: Routledge. pp. 7–20.

IVANIČ, R., EDWARDS, R., BARTON, D. MARTIN-JONES, M., FOWLER, Z., HUGHES, B., MANNION, G., MILLER, K., SATCHWELL, C. SMITH, J., 2009. *Improving Learning in College. Rethinking literacies across the curriculum.* Oxon: Routledge.

IVANIČ, R., EDWARDS, R., SATCHWELL, C., and SMITH, J., 2007. Possibilities for pedagogy in further education: harnessing the abundance of literacy. *British Educational Research Journal*. 33 (5), pp. 703–721.

JAROSEWICH, T., VARGO, L., SALZMAN, J., LENHART, L., KROSNICK, L.A., VANCE, K., and ROSKOS, K., 2010. Say what? The Quality of Discussion Board Postings in Online Professional Development. *New Horizons in Education*. 58 (3), pp. 118–132.

JARVIS, P., 2009. Learning to be a person in society: learning to be me. In: K. ILLERIS, ed. *Contemporary Theories of Learning, Learning Theorists...In their own words.* London: Routledge. pp. 21–34.

KABILAN, M.K., 2016. Using Facebook as an e-portfolio in enhancing pre-service

teachers' professional development. *Australasian Journal of Educational Technology*. 32 (1), pp. 19–31.

KAMALODEEN, V.J. and JAMESON-CHARLES, M., 2016. A Mixed Methods Research Approach to Exploring Teacher Participation in an Online Social Networking Website. *International Journal of Qualitative Methods*. (Special Issue), pp. 1–14.

KARAGIORGI, Y. and LYMBOURIDOU, C., 2009. The story of an online teacher community in Cyprus. *Professional Development in Education*. 35 (1), pp. 119–138.

KEAR. K., CHETWYND, F., WILLIAMS, J., DONELAN, H., 2012. Web conferencing for synchronous online tutorials: Perspectives of tutors using a new medium. *Computers & Education*. 58, pp. 953–963.

KENNEDY, E. and GRAY, M., 2016. 'You're facing that machine but there's a human being behind it': students' affective experiences on an online doctoral programme. *Pedagogy, Culture and Society*. 24 (3), pp. 417–429.

KIM, M. and SCHALLERT, D.L., 2011. Building caring relationships between a teacher and students in a teacher preparation program word-by-word, moment-by-moment. *Teaching and Teacher Education*. 27, pp. 1059–1067.

KOCH, T., 2006. Establishing rigour in qualitative research: the decision trail. *Journal of Advanced Nursing*. 53 (1), pp. 91–103.

KOZAR, O., 2016. Perceptions of webcam use by experienced online teachers and learners: a seeming disconnect between research and practice. *Computer Assisted Language Learning*. 29 (4), pp. 800–810.

KUHN, T.S., 2012. *The Structure of Scientific Revolutions. 50th anniversary ed. Introductory essay by Ian Hacking.* Chicago: University of Chicago Press Revolutions.

KVALE, S. and BRINKMANN, S., 2009. *InterViews: Learning the Craft of Qualitative Research Interviewing*. 2nd ed. London: Sage Publications.

LANTZ-ANDERSSON, A., LUNDIN, M., and SELWYN, N., 2018. Twenty years of online teacher communities: A systematic review of formally-organized and informally-developed professional learning groups. *Teaching and Teacher Education*. 75, pp. 302–315.

LAURILLARD, D., 2005. Harnessing Technology: Transforming Learning and Children's Services. [online]. Available from: https://telearn.archives-ouvertes.fr/hal-00190344/document.

LAURILLARD, D., 2008. Technology Enhanced Learning as a Tool for Pedagogical Innovation. *Journal of Philosophy of Education*. 42 (3–4), pp. 521–533.

LAVE, J., 2009. The practice of learning. In: K. ILLERIS, ed. *Contemporary Theories of Learning, Learning Theorists...In their own words.* London: Routledge. pp. 200–208.

LAWLESS, N. and ALLAN, J., 2004. Understanding and reducing stress in collaborative e-learning. *Electronic Journal of E-Learning*. 2 (1), pp. 121–127.

LEE, N.-J., 2009. *Achieving your Professional Doctorate.* Berkshire: Open University Press.

LEWIN, C., 2011. Understanding and Describing Quantitative Data. In: B. SOMEKTH and C. LEKIW, eds. *Theory and Methods in Social Research*. London: Sage Publications. pp. 220–230.

LINCOLN, Y.S. & GUBA, E.G., 1985. *Naturalistic Inquiry*. Beverly Hills: SAGE.

LINCOLN, Y.S. and GUBA, E.G., 2000. The Only Generalization Is: There Is No Generalization. In: R. GOMM, M. HAMMERSLEY and P. FOSTER, eds. *Case Study Method*. London: Sage Publications. pp. 27–44.

LOURENS, G., 2016. Being a Postgraduate Woman: Relationships, Responsibilities and Resiliency. In: FRICK L, C. MOTSHOANE, C. MCMASTER and C. MURPHY, eds. *Postgraduate Study in South Africa.* Stellenbosch: Sun Press. pp. 101–113.

LOWENTHAL, P.R., WILSON, B.G., and PARRISH, P., 2009. Context matters: A description and typology of the online learning landscape. In: *AECT International Convention*. Louisville, KY.

LUKMAN, R. and KRAJNC, M., 2012. Exploring Non-traditional Learning Methods in Virtual and Real-world Environments. *Educational Technology and Society*. 15 (1), pp. 237–247.

MACBETH, D., 2001. On 'Reflexivity' in Qualitative Research: Two Readings, and a Third. *Qualitative Inquiry*. 7 (1), pp. 35–68.

MACIÀ, M. and GARCÍA, I., 2016. Informal online communities and networks as a source of teacher professional development: A review. *Teaching and Teacher Education*. 55, pp. 291–307.

MAICAN, C.I., CAZAN, A.M., LIXANDROIU, R.C., and DOVLEAC, L., 2019. A study on academic staff personality and technology acceptance: The case of communication and collaboration applications. *Computers & Education*. 128, pp. 113–131.

MANNION, G., MILLER, K., GIBB, I., and GOODMAN, R., 2009. Reading Writing and Resonating: striking chords across the contexts of students' everyday and college lives. *Pedagogy, Culture & Society*. 17 (3), pp. 323–339.

MASIKA, R. and JONES, J., 2016. Building student belonging and engagement: insights into higher education students' experiences of participating and learning together. *Teaching in Higher Education*. 21 (2), pp. 138–150.

MATTHEWS, D., 2017. Academics fail to change teaching due to fear of looking stupid. [online]. Available from: https://www.timeshighereducation.com/news/academics-fail-change-teaching-due-fear-looking-stupid.

MATZAT, U., 2010. Reducing problems of sociability in online communities: Integrating online communication with offline interaction. *American Behavioral Scientist*. 53, pp. 1170–1193.

MATZAT, U., 2013. Do blended virtual learning communities enhance teachers' professional development more than purely virtual ones? A large scale empirical comparison. *Computers and Education*. 60, pp. 40–51.

MAUTHNER, N.S. and DOUCET, A., 2003. Reflexive Accounts and Accounts of Reflexivity in Qualitative Data Analysis. *Sociology*. 37 (3), pp. 413–431.

MAZMAN, S.G. and USLUEL, Y.K., 2010. Modelling educational usage of Facebook. *Computers and Education*. 55, pp. 444–453.

MCATEER, M., 2013. *Action Research in Education*. London: Sage Publications.

MCCONNELL, T.J., PARKER, J.M., EBERHARDT, J., KOEHLER, M.J., and LUNDEBERG, M.A., 2013. Virtual Professional Learning Communities: Teachers' Perceptions of Virtual Versus Face-to-Face Professional Development. *Journal of Science Education and Technology*. 22, pp. 267–277.

MCGEOWN, S.P., PUTWAIN, D., GEIJER SIMPSON, E., BOFFEY, E., MARKHAM, J., and

VINCE, A., 2014. Predictors of adolescents' academic motivation: Personality, self-efficacy and adolescents' characteristics. *Learning and Individual Differences*. 32, pp. 278–286.

MCINTYRE, J., HOBSON, A.J., and MITCHELL, N., 2009. Continuity, support, togetherness and trust: Findings from an evaluation of a university-administered early professional development programme for teachers in England. *Professional Development in Education*. 35 (3), pp. 357–379.

MCLEAD, J., 2007. *Counselling skill.* Maidenhead: Open University Press.

MCLEAD, J. and VASINDA, S., 2008. Critical Literacy and Web 2.0: Exercising and Negotiating Power. *Computers in the Schools*. 25 (3–4), pp. 259–274.

MCMILLAN, D.W. and CHAVIS, D.M., 1986. Sense of Community: A Definition and Theory. *Journal of Community Psychology*. 14, pp. 6–23.

MCPHEE, E., 2015. Learning through talking: Web forum conversations as facilitation for instrumental teacher professional development. *Australian Journal of Music Education*. 2, pp. 107–117.

MEIJS, C., PRINSEN, F.R., and DE LAAT, M.F., 2016. Social learning as approach for teacher professional development; how well does it suit them? *Educational Media International*. 53 (2), pp. 85–102.

MERCER, J., 2007. The challenges of insider research in educational institutions: wielding a double-edged sword and resolving delicate dilemmas. *Oxford Review of Education*. 33 (1), pp. 1–17.

MILES, M. and HUBERMAN, A., 1994. *Qualitative Data Analysis: An Expanded Sourcebook*. 2nd ed. London: Sage Publications.

MILLER, R. and BREWER, J., 2003. *The A-Z of Social Research*. London: Sage Publications.

MITCHELL, J., BOETTCHER-SHEARD, N., DUQUE, C., and LASHEWICZ, B., 2018. Who Do We Think We Are? Disrupting Notions of Quality in Qualitative Research. *Qualitative Health Research*. 28 (4), pp. 673–680.

MORGAN, D., 1997. *Focus Groups as Qualitative Research*. 2nd ed. London: Sage Publications.

MORROW, S.L., 2005. Quality and Trustworthiness in Qualitative Research in Counseling psychology. *Journal of Counseling Psychology*. 52 (2), pp. 250–260.

NATIONAL COMMITTEE OF INQUIRY INTO HIGHER EDUCATION, 1997. The Dearing Report. Higher Education in the Learning Society. [online]. Available from: http://www.educationengland.org.uk/documents/dearing1997/dearing1997.html .

NAVEED, A., SAKATA, N., KEFALLINOU, A., YOUNG, S., and ANAND, K., 2017. Understanding, embracing and reflecting upon the messiness of doctoral fieldwork. *Compare: A Journal of Comparative and International Education*. 47 (5), pp. 773–792.

NICHOLAS, H. and NG, W., 2009. Fostering online social construction of science knowledge with primary pre-service teachers working in virtual teams. *Asia-Pacific Journal of Teacher Education*. 37 (4), pp. 379–398.

NOWELL, L.S., NORRIS, J.M., WHITE, D.E., and MOULES, N.J., 2017. Thematic Analysis: Striving to Meet the Trustworthiness Criteria. *International Journal of Qualitative Methods*. 16, pp. 1–13.

OFCOM, 2020. *Online Nation 2020 Summary Report.* [online]. [online]. Available from:

https://www.ofcom.org.uk/__data/assets/pdf_file/0028/196408/online-nation-2020-summary.pdf [Accessed 7 Jul 2020].

OLIPHANT, T. and BRANCH-MUELLER, J., 2016. Developing a sense of community and the online student experience. *Education for Information*. 32, pp. 307–321.

ONLINE LEARNING TASK FORCE, 2011. *Collaborate to Compete: Seizing the opportunity of online learning for UK higher education*. Higher Education Funding Council for England (HEFCE).

OWUSU, G.M.Y., BEKOE, R.A., OTOO, D.S., and KOLI, A.P.E., 2019. Adoption of social networking sites for educational use. *Journal of Applied Research in Higher Education*. 11 (1), pp. 2–19.

PALLOFF, R.M. and PRATT, K., 2011. *The Excellent Online Instructor: Strategies for Professional Development*. San Franscisco, CA: Jossey Basss.

PASKEVICIUS, M. and BORTOLIN, K., 2016. Blending our practice: using online and face-to-face methods to sustain community among faculty in an extended length professional development program. *Innovations in Education and Teaching International*. 53 (6), pp. 605–615.

PETIT DIT DARIEL, O., WHARRAD, H., and WINDLE, R., 2013. Exploring the underlying factors influencing e-learning adoption in nurse education. *Journal of Advanced Nursing*. 69 (6), pp. 1289–1300.

POLE, C. and MORRISON, M., 2003. *Ethnography for Education*. Berkshire: Open University Press.

POLKINGHORNE, D.E., 2005. Language and Meaning: Data Collection in Qualitative Research. *Journal of Counseling Psychology*. 52 (2), pp. 137–145.

PORTER, J., 2002. Why technology matters to writing: A cyberwriter's tale. *Computers and Composition*. 20, pp. 375–394.

PURITZ COOK, J., 2018. Online Education and the Emotional Experience of the Teacher. *New Directions for Teaching and Learning*. 153, pp. 67–75.

RANIERI, M., MANCA, S., and FINI, A., 2012. Why (and how) do teachers engage in social networks? An exploratory study of professional use of Facebook and its implications for lifelong learning. *British Journal of Educational Technology*. 43 (5), pp. 754–769.

RAPLEY, T.J., 2001. The art(fulness) of open-ended interviewing: some considerations on analysing interviews. *Qualitative Research*. 1 (3), pp. 303–323.

REEVES, T.D. and ZHUSHAN, L., 2012. Teachers' technological readiness for online professional development: Evidence from the US e-Learning for Educators initiative. *Journal of Education for Teaching*. 38 (4), pp. 389–406.

REGAN, K., EVMENOVA, A., BAKER, P., JEROME, M.K., SPENCER, V., LAWSON, H., and WERNER, T., 2012. Experiences of instructors in online learning environments: Identifying and regulating emotions. *Internet and Higher Education*. 15, pp. 204–212.

REILLY, J.R., GALLAGHER-LEPAK, S., and KILLION, C., 2012. "Me and My Computer": Emotional Factors in Online Learning. *Nursing Education Perspectives*. 33 (2), pp. 100–105.

RENNIE, D.L., 2004. Reflexivity and person-centered counseling. *Journal of Humanistic Psychology*. 44 (2), pp. 182–203.

RICHARDS, L., 1999. *Using NVivo in Qualitative Research*. London: Sage Publications.

ROBERTS, K., DOWELL, A., and NIE, J.B., 2019. Attempting rigour and replicability in

thematic analysis of qualitative research data; a case study of development. *BMC Medical Research Methodology*. 19 (66), pp. 1–8.

ROBINSON, J. and NORRIS, N., 2001. Generalisation: the linchpin of evidence-based practice. *Educational Action Research*. 9 (2), pp. 303–310.

ROBSON, C., 2002. *Real World Research*. 2nd ed. Oxford: Blackwell Publishing.

ROSE, E., 2017. Beyond Social Presence: Facelessness and the Ethics of Asynchronous Online Education. *McGill Journal of Education*. 52 (1), pp. 17–32.

ROSE, E. and ADAMS, C., 2014. '"Will I ever connect with the students?"' Online Teaching and the Pedagogy of Care. *Phenomenology & Practice*. 7 (2), pp. 5–16.

ROULSTON, K., 2010. Considering quality in qualitative interviewing. *Qualitative Research*. 10 (2), pp. 199–228.

ROVAI, A.P., 2002. Building sense of community at a distance. *International Review of Research in Open and Distance Learning*. 3 (1), pp. 1–16.

RYAN, S., KAUFMAN, J., GREENHOUSE, J., SHE, R., and SHI, J., 2016. The effectiveness of blended online learning courses at the community college level. *Community College Journal of Research and Practice*. 40 (4), pp. 285–298.

SATCHWELL, C., BARTON, D., and HAMILTON, M., 2013. Crossing boundaries: Digital and non-digital literacy practices in formal and informal contexts in further and higher education. In: R. GOODFELLOW and M.R. LEA, eds. *Literacy in the Digital University: Critical Perspectives on Learning, Scholarship, and Technology*. London: Routledge. pp. 42–55.

SATCHWELL, C. and IVANIČ, R., 2010. Reading and writing the self as a college student. Fluidity and ambivalence across contexts. In: K. ECCLESTONE, G. BIESTA and M. HUGHES, eds. *Transitions and Learning Through the Lifecourse*. Oxon: Routledge. pp. 47–68.

SATCHWELL, C., PARTINGTON, H., BARNES, L., GURJEE, R., RAMSDALE, S., DODDING, J., and DRURY, K., 2015. Our breadcrumb trail through the woods': Reflections on the use of a Secret Facebook Group as a Strategy for Surviving and Thriving on the Doctoral Journey. *International Journal of Doctoral Studies*. 10, pp. 465–482.

SCHOFIELD, J.W., 2000. Increasing the Generalisability of Qualitative Research. In: R. GOMM, M. HAMMERSLEY and P. FOSTER, eds. *Case Study Method*. London: Sage Publications. pp. 69–97.

SCHON, D.A., 1983. *The Reflective Practitioner: How Professionals Think in Action*. New York: Basic Books.

SCOTLAND, J., 2012. Exploring the Philosophical Underpinnings of Research: Relating Ontology and Epistemology to the Methodology and Methods of the Scientific, Interpretive, and Critical Research Paradigms. *English Language Teaching*. 5 (9), pp. 9–16.

SEALE, C., 1999. *The Quality of Qualitative Research*. London: Sage Publications.

SEO, K. and HAN, Y.K., 2013. Online teacher collaboration: A case study of voluntary collaboration in a teacher-created online community. *Journal of Educational Policy*. 10 (2), pp. 221–242.

SILVERMAN, D., 2011. *Qualitative Research*. 3rd ed. London: Sage Publications.

SIMPSON, O., 2013. Student retention in distance education: are we failing our students? *The Journal of Open, Distance and e-learning*. 28 (2), pp. 105–119.

SITZMAN, K. and WOODARD LENERS, D., 2006. Student Perceptions of Caring in Online Baccalaureate Education. *Nursing Education Perspectives*. 27 (5), pp. 254–259.

SMITH, J. and HERCKIS, L., 2018. *Understanding and Overcoming Institutional Roadblocks to the Adoption and Use of Technology-Enhanced Learning Resources in Higher Education.* [online]. Available from: https://www.cmu.edu/simon/news/docs/ccny-report.pdf.

SOMEKH, B. and LEWIN, C., eds., 2011. *Theory and Methods in Social Research*. 2nd ed. London: Sage Publications.

SPENCER, L., RITCHIE, J., O'CONNER, W., MORRELL, G., and ORMSTON, R., 2014. Analysis in Practice. In: J. RITCHIE, J. LEWIS, C. MCNAUGHTON NICHOLLS and R. ORMSTON, eds. *Qualitative Research Practice*. London: Sage Publications. pp. 296–345.

STAKE, R.E., 1995. *The Art of Case Study Research*. London: Sage Publications.

STREET, B., 1995. *Social Literacies: Critical Approaches to Literacy in Development, Ethnography and Education*. London: Routledge.

STREET, B., 2003. What's 'new' in New Literacy Studies? Critical approaches to literacy in theory and practice. *Current Issues in Comparative Education*. 2 (3), pp. 77–91.

STRINGER, E., 2008. *Action Research in Education*. 2nd ed. New Jersey: Pearson Education.

SUTHERLAND, L.M., SCANLON, L.A., and SPERRING, A., 2005. New directions in preparing professionals: Examining issues in engaging students in communities of practice through a school-university partnership. *Teaching and Teacher Education*. 21 (1), pp. 79–92.

TARAS, M., 2016. Situating power potentials and dynamics of learners and tutors within self-assessment models. *Journal of Further and Higher Education*. 40 (6), pp. 846–863.

TELES, L. and COUTINHO, L.M., 2011. Teacher Professional Development in the Amazon Region: Strategies to Create Successful Learning Communities. *Journal of Asynchronous Learning Networks*. 15 (3), pp. 81–92.

THANG, S.M., HALL, C., MURUGAIAH, P., and AZMAN, H., 2011. Creating and maintaining online communities of practice in Malaysian Smart Schools: challenging realities. *Educational Action Research*. 19 (1), pp. 87–105.

TRAFFORD, V. and LESHEM, S., 2008. *Stepping Stones To Achieving Your Doctorate: By Focusing On Your Viva From The Start*. Berkshire: Open University Press.

TRUST, T. and HORROCKS, B., 2017. 'I never feel alone in my classroom': teacher professional growth within a blended community of practice. *Professional Development in Education*. 43 (4), pp. 645–665.

TRUST, T. and HORROCKS, B., 2019. Six Key Elements Identified in an Active and Thriving Blended Community of Practice. *TechTrends*. 63, pp. 108–115.

TSENG, F.C. and KUO, F.Y., 2014. A study of social participation and knowledge sharing in the teachers' online professional community of practice. *Computers and Education*. 72, pp. 37–47.

TURKLE, S., 2015. *Reclaiming Conversation. The Power of Talk in a Digital Age.* New York: Penguin Press.

UNIVERSITY A, 2019. Quality Management Handbook, A guide to A University's academic quality strategy.

UNIVERSITY A, 2020. Strategic Plan.

UNWIN, A., 2015. Developing new teacher inquiry and criticality: The role of online discussions. *British Journal of Educational Technology*. 46 (6), pp. 1214–1222.

VAISMORADI, M., TURUNEN, H., and BONDAS, T., 2013. Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing and Health Sciences*. 15, pp. 398–405.

VENKATESH, V. and DAVIS, F.D., 2000. A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science*. 46 (2), pp. 186–204.

VENKATESH, V., MORRIS, M.G., DAVIS, G.B., and DAVIS, F.D., 2003. User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*. 27 (3), pp. 425–478.

VLACHOPOULOS, P., 2012. The importance of power dynamics in the development of asynchronous online learning communities. In: *Future Challenges, sustainable futures.* [online]. Proceedings ascilite Wellington. pp. 998–1006. Available from: https://www.ascilite.org/conferences/Wellington12/2012/pagec16a.html.

WALKER, M., STRAW, S., JEFFES, J., SAINSBURY, M., CLARKE, C., and THOM, G., 2013. *Evaluation of the Mathematics Specialist Teacher (MaST) programme, Research report* [online]. Available from: https://www.nfer.ac.uk/publications/pmsz01/pmsz01.pdf.

WANG, Q. and LU, Z., 2012. A Case Study of Using an Online Community of Practice for Teachers' Professional Development at a Secondary School in China. *Learning, Media and Technology*. 37 (4), pp. 429–446.

WENGER, E., 1998. *Communities of Practice: Learning, Meaning, and Identity*. Cambridge: Cambridge University.

WENGER, E., MCDERMOTT, R., and SNYDER, W.M., 2002. *Cultivating Communities of Practice: A Guide to Managing Knowledge*. Boston: Harvard Business School Press.

WENGER, E., TRAYNER, B., and DE LAAT, M., 2011. *Promoting and assessing value creation in communities and networks: A conceptual framework.* The Netherlands: Ruud de Moor Centrum.

WENGER, E., WHITE, N., and SMITH, J.D., 2009. *Digital Habitats, Stewarding Technology for Communities*. Portland: CPsquare.

WESELY, P.M., 2013. Investigating the Community of Practice of World Language Educators on Twitter. *Journal of Teacher Education*. 64 (4), pp. 305–318.

WESTHEIMER, J. and KAHNE, J., 1993. Building School Communities: An Experience-Based Model. *Phi Delta Kappan*. 75 (4), pp. 324–328.

WETHERELL, M., 2012. *Affect and Emotion: A New Social Science Understanding*. London: Sage Publications.

WILLIAMS, A., TANNER, D., and JESSOP, T., 2007. The creation of virtual communities in a primary initial teacher training programme. *Journal of Education for Teaching*. 33 (1), pp. 71–82.

WILLIAMS, B.T., 2013. Control and the classroom in the digital university: The effect of course management systems on pedagogy. In: R. GOODFELLOW and M.R. LEA, eds. *Literacy in the Digital University: Critical Perspectives on Learning, Scholarship, and Technology*. London: Routledge. pp. 173–184.

WILLIAMS, E.N. and MORROW, S.L., 2009. Achieving trustworthiness in qualitative research: A pan-paradigmatic perspective. *Psychotherapy Research*. 19 (4–5), pp. 576–582.

YIN, R.K., 2003. *Case study research: Design and Methods*. 3rd ed. London: Sage Publications.

YOUDE, A., 2020a. I don't need peer support: effective tutoring in learning environments for part-time, adult learners. *Higher Education Research & Development*. 39 (5), pp. 1040–1054.

YOUDE, A., 2020b. *The Emotionally Intelligent Online Tutor: Effective Tutoring in Blended and Distance Learning Environments*. Taylor and Francis. Kindle Edition.

ZEMBYLAS, M., THEODOROU, M., and PAVLAKIS, A., 2008. The role of emotions in the experience of online learning: challenges and opportunities. *Educational Media International*. 45 (2), pp. 107–117.

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Appendix 1: Documentation

Appendix 1.1: Letter of Permission

Vicki Grinyer

Address

Tel: X

Dr. X

Project Director

<div align="right">20 March 2016</div>

Dear X,

I am currently undertaking a Doctorate in Education (EdD) with the University of Central Lancashire (UCLan) which involves educational practitioners progressively developing their research in their practice. I would like to request permission to invite students and tutors from the X programme for their participation in my research project.

The research will aim to investigate the effectiveness of e-learning in terms of supporting primary school teachers undertaking Postgraduate Professional Development (PGPD) to engage in a community of learners. The research will explore students' and tutors' preferences for face-to-face and online learning, as well as examining the potential factors that support or prevent students from engaging in online learning with each other. It is hoped the research will provide further insight into how tutors can best support the development of an online learning community.

Through listening to the voice of the students and tutors and through analysing the data gathered, I hope to better understand how to build an effective online community of learners, as well as progressing my understanding of how tutors can support students to actively engage in online learning with each other.

The fieldwork will take place over a period of 12 months (between September 2016 and August 2017) and the sample will include eighteen students and three course tutors. Focus groups will be conducted with one group (of six students) from each phase of the programme (PG Certificate, PG Diploma and MA modules). Semi-structured follow up

telephone interviews will be carried out with six students who are also at different stages in order to gain a representation of views across the programme. Interviews will be carried out with three course tutors.

I have also attached a full version of my Statement of Intent (SoI) which includes further information about the proposed research.

I would be most grateful if you could indicate your approval of this request by signing in the dedicated space below.

Yours sincerely,

V. Grinyer

Vicki Grinyer

PERMISSION GRANTED FOR THE REQUEST FOR PARTICIPATION FROM STUDENTS AND TUTORS:

By: Dr X

Title: Director of Programme

Date: 21 March, 2016

Appendix 1.2: Letter of Ethical Approval from BAHSS Ethics Committee

15th July 2016

Vicki / Victoria Grinyer
School of Humanities and Social Sciences
University of Central Lancashire

Dear Vicki / Victoria,

Re: BAHSS Ethics Committee Application
Unique Reference Number: **BAHSS 348**

The BAHSS ethics committee has granted approval of your proposal application 'Supporting primary school teachers engaging with postgraduate professional development: An exploration of the affordances of e-learning to build, support and sustain an effective community of learners'. Approval is granted up to the end of project date* or for 5 years from the date of this letter, whichever is the longer.

It is your responsibility to ensure that:

- the project is carried out in line with the information provided in the forms you have submitted

- you regularly re-consider the ethical issues that may be raised in generating and analysing your data

- any proposed amendments/changes to the project are raised with, and approved, by Committee

- you notify roffice@uclan.ac.uk if the end date changes or the project does not start

- serious adverse events that occur from the project are reported to Committee

- a closure report is submitted to complete the ethics governance procedures (Existing paperwork can be used for this purpose e.g. funder's end of grant

report; abstract for student award or NRES final report. If none of these are available use e-Ethics Closure Report Proforma).

Yours sincerely,

Peter Lucas

Chair

BAHSS Ethics Committee

Appendix 1.3: Recruitment Email to Students

Hello, my name is Vicki Grinyer and I am currently carrying out research for a Doctorate in Education (EdD) at The University of Central Lancashire (UCLan) through which my intention is to explore ways of supporting teachers to build, support and sustain effective communities of learners, particularly in relation to building online learning communities. My thesis title is '**Supporting primary school teachers engaging with postgraduate professional development: An exploration of the affordances of e-learning to build, support and sustain an effective community of learners'**.

I am inviting you to participate because you have experienced certain elements of the programme, such as the face-to-face sessions and the Blackboard learning area. Your views and experiences will provide important insight about e-learning and the factors that support or prevent students from engaging in online learning with each other. All students and tutors engaging with the programme will be invited to take part.

Participation in this research will include you being involved in a group interview, which will take approximately 30-40 minutes. This will take place at conference day (insert date when confirmed). You might be asked to be involved in an individual follow-up interview, which will be held at the most appropriate time for you. If you agree to participate in a follow-up interview, that will take approximately 20 minutes. If you participate in both the group interview and the individual interview, your total time commitment will be approximately 50 minutes.

The results of this study may be published in research journals or presented at conferences. The information you provide may be used to write reports that may be seen publicly, although you will not be identifiable in such cases. All the information gathered in the study will be strictly confidential and will only be shared with the research team at UCLan (if necessary). All participant information will be fully anonymised during the collection and storage of the data and within final publication of the report and thesis.

Participation in this research is entirely voluntary. If you decide to take part, you are still free to withdraw at any time and without giving a reason. *Y*our decision to participate, withdraw or not be involved at all will not have any impact on your grades, assessments or future studies.

The findings of this research will inform and improve future practice regarding the pedagogy of e-learning for your programme and for other similar postgraduate (PG) programmes in the wider context. Importantly, it is hoped these research findings will improve the learning experience for students engaging with the programme.

If you would like to participate in the research or you have any questions, please contact me at Victoria.Grinyer@X.ac.uk or by telephone on X.

Thank you for taking the time to read this information.

Appendix 1.4: Participant Information Sheet – Student Copy

Title of the study:

Supporting primary school teachers engaging with postgraduate professional development: An exploration of the affordances of e-learning to build, support and sustain an effective community of learners.

Introduction

My name is Vicki Grinyer and I have been working as a lecturer with the X programme for six years. I am currently embarking on research for a Doctorate in Education at the University of Central Lancashire (UCLan) which will involve exploring the extent to which online learning can support effective communities of learners.

You are being invited to take part in my research study. Before you decide whether or not to be involved, it is important that you understand the reasons for the research being carried out and what it will involve. Please take some time to read the following information carefully.

What is the purpose of this study?

The study aims to investigate the affordances of e-learning in terms of supporting primary school teachers undertaking Postgraduate Professional Development (PGPD) to engage in a community of learners. It intends to explore why some students seem to prefer face-to-face learning, as well as examining the potential factors that support or prevent students from engaging in online learning with each other. It is hoped the research will provide insight into how tutors can best support the development of an online learning community, in order to improve the learning experience for the students engaging with the programme. In order to get a deeper insight into online learning, my research will involve holding group interviews (focus groups) and individual interviews with students and tutors. The research study will be completed by December 2018.

Why have you been invited to participate in this project?

You have been asked to take part in this study because as a primary school teacher/tutor engaging with the programme, you have experienced certain elements of the programme, such as the face-to-face sessions and the Blackboard learning area. Your views and experiences will provide important insight about e-learning and the factors that support or prevent students from engaging in online learning with each other. All students and tutors engaging with the programme will be invited to take part.

Do you have to be involved?

It is entirely up to you whether or not you decide to be involved in this research. If you do decide to participate you will be given this information sheet to keep. You will then be asked to sign a consent form to confirm that you understand the nature of the project and your role within it, and that you are willing to be involved. If you decide to take part, you are still free to withdraw at any time and without giving a reason. Your decision to participate, withdraw or not be involved at all will not have any impact on your grades, assessments or future studies.

If you do decide to be involved in the focus group and/or individual interviews, you do not have to answer the questions asked and you can leave the focus group/individual interview at any stage without giving a reason. Please note that it may not be possible for you to withdraw your contribution following a focus group interview due to the discussion being group based in nature. However, you will be invited to check and amend your contribution before the final analysis and reporting of data. If you take part in an individual interview, you will be free to withdraw your contribution up until the final analysis of the data. If at any point you wish to withdraw from the study, you should contact me at Victoria.Grinyer@X.ac.uk.

What will you do in the project?

If you choose to take part in my study, you will be required to be involved in a group interview with approximately 5 other students from your course. The group interview will last between 30 and 40 minutes and will take place at the conference day (date to be confirmed). You might then be asked to take part in a 20-minute telephone interview. During these interviews, I will ask questions about your experiences and perceptions of the face-to-face sessions and online learning. In order for me to be able

to talk with you, and to capture the conversation, the focus group interviews will be audio recorded. If you do not wish to be recorded during the focus group, then you will be unable to participate in the session. The individual telephone interviews will also be audio recorded.

What happens to the information in the project?

Once the information from the interviews has been transcribed, you will be invited to check the details of this information to provide you with the chance to correct or change anything you are unhappy with. You will also be invited to read the representation of the findings in the final report, to ensure that what you might have said has been interpreted and reported correctly.

Will the information I give in this study be kept confidential?

All the information gathered in the study will be strictly confidentially (and only shared with the research team at UCLan (if necessary). All participant information will be fully anonymised during the storage of the data and within final publication of the report. The information you provide may be used to write reports that may be seen publicly, although you will not be identifiable in such cases. The results of this study may be published in research journals or presented at conferences. You will be able to withdraw your anonymised data from the individual interviews up until the final analysis of the data (this information cannot be withdrawn once it has been included in the final analysis of the data and in the final thesis).

The interview data will be stored electronically on the University server (which is protected and secure) for 5 years after the completion of the research project. Any paper documentation will be stored in a locked cupboard in an office located on the University premises for 5 years after the completion of the research project, after which time the data will be destroyed.

What are the possible benefits of taking part?

The findings of this research will inform and improve future practice regarding the pedagogy of e-learning for your programme and for other similar postgraduate (PG) programmes in the wider context. Importantly, it is hoped these research findings will

improve the learning experience for you and for other students engaging with the programme.

What are the potential risks to you in taking part?

If you choose to take part in this study, there will be no direct risk to you. You will be asked to stay after the session on conference day (date to be confirmed) to take part in the focus group interview, which will take up between 30 and 50 minutes of your time. If you are asked to take part in a follow up telephone interview, this will be arranged at a time which suits you best.

What happens next?

If you wish to be involved in the project, you will be asked to sign a consent form to confirm that you are happy to be involved. If you do not wish to be involved in this research - many thanks for taking the time to read this information.

What will happen to the results of the study?

Once the project is completed, you will be invited to read the final report. The study findings will be used in my final thesis for my Doctorate in Education, as well as being published in an appropriate journal.

If you would like to request a copy of the findings, then you should contact Victoria.Grinyer@X.ac.uk to organise how you would like to receive this.

Researcher contact details:

Victoria Grinyer

Address provided

Telephone number provided

Who has reviewed the study?

This study was granted ethical approval by the University of Central Lancashire Research Ethics Committee for Business, Arts, Humanities and Social Science. (BAHSS)

Contact for Further Information

If you have any questions/concerns, during or after the investigation, or wish to contact an independent person to whom any questions may be directed or further information may be sought from, please contact: University Officer for Ethics (OfficerforEthics@uclan.ac.uk).

Thank you for taking the time to read this information sheet.

Date

Appendix 1.5: Research Consent Form – Student Copy

This project forms part of a Doctorate in Education (EdD) and it aims to explore the affordances of e-learning in terms of supporting primary school teachers undertaking Postgraduate Professional Development (PGPD), particularly in relation to building an online community of learners.

Title of study: Supporting primary school teachers engaging with postgraduate professional development: An exploration of the affordances of e-learning to build, support and sustain an effective community of learners.

Please take time to read the Information Sheet before completing this form carefully. If you are willing to participate in this study, please initial the appropriate boxes and sign and date the declaration at the end. If you do not understand anything and would like more information, please contact me at Victoria.Grinyer@X.ac.uk or by telephone on X.

	Please initial box
I confirm that I have read and understand the information sheet, dated ……………. for the above study and have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	
I understand that my participation in the study is voluntary and that I am free to withdraw from this study at any time, up to the point of completion, without having to give an explanation and without any consequences or impact on my grades, assessments or future studies.	
I agree to be involved in a group interview with approximately 5 other students from my course, lasting between 30 and 40 minutes.	
I understand that I might be asked to take part in a 20-minute individual telephone interview, which will be arranged to suit a time best for me.	
I agree to the focus group interviews being audio recorded and I agree to the interview being captured electronically for the purposes of taking a transcript for notes and analysis.	

I understand that all participant information gathered in the study will be strictly confidentially (and only shared with the research team at UCLan) and will be fully anonymised during the storage of the data and within final publication of the report.	
I understand that it may not be possible for me to withdraw my contribution following a focus group interview due to the discussion being group based in nature. However, I will be invited to check and amend my contribution before the final analysis and reporting of data.	
I understand that if I take part in an individual interview, I will be free to withdraw my contribution up until the final analysis of the data.	
I understand that it will not be possible to withdraw my anonymised data from the study after final analysis has been undertaken.	
I agree that any information I provide may be used to write reports that may be seen publicly, although I will not be identifiable in such cases.	
I agree to the use of anonymised quotes in publications.	
I agree that my data gathered in this study may be stored (after it has been anonymised) in a specialist data centre and may be used for future research.	

I freely give my consent to participate in this research study and have been given a copy of this form for my own information.

Signature: …………………………………………………………….………….

Date: …………………………………………………………………………………

If at any point you wish to withdraw from the study, you should contact me at Victoria.Grinyer@X.ac.uk.

Appendix 1.6: Participant Information Sheet – Tutor Copy

Title of the study:

Supporting primary school teachers engaging with postgraduate professional development: An exploration of the affordances of e-learning to build, support and sustain an effective community of learners.

Introduction

My name is Vicki Grinyer and I have been working as a lecturer with the X programme for six years. I am currently embarking on research for a Doctorate in Education at the University of Central Lancashire (UCLan) *which will involve exploring the extent to which online learning can support effective communities of learners.*

You are being invited to take part in my research study. Before you decide whether or not to be involved, it is important that you understand the reasons for the research being carried out and what it will involve. Please take some time to read the following information carefully.

What is the purpose of this study?

The study aims to investigate the affordances of e-learning in terms of supporting primary school teachers undertaking Postgraduate Professional Development (PGPD) to engage in a community of learners. It intends to explore why some students seem to prefer face-to-face learning, as well as examining the potential factors that support or prevent students from engaging in online learning with each other. It is hoped the research will provide insight into how tutors can best support the development of an online learning community, in order to improve the learning experience for the students engaging with the programme. In order to get a deeper insight into online learning, my research will involve holding individual interviews with tutors and students. The research study will be completed by December 2018.

Why have you been invited to participate in this project?

You have been asked to take part in this study because as a tutor involved in teaching on the programme, you have experienced certain elements of the programme, such as the face-to-face sessions and the Blackboard learning area. Your views and experiences

will provide important insight about face-to-face and e-learning and the factors that support or prevent students from engaging in online learning with each other. All tutors and students engaging with the programme will be invited to take part.

Do you have to be involved?

It is entirely up to you whether or not you decide to be involved in this research. If you do decide to participate you will be given this information sheet to keep. You will then be asked to sign a consent form to confirm that you understand the nature of the project and your role within it, and that you are willing to be involved. If you decide to take part, you are still free to withdraw at any time and without giving a reason.

If you do decide to be involved in the individual interviews, you do not have to answer the questions asked and you can leave the interview at any stage without giving a reason. If you take part in an individual interview, you will be free to withdraw your contribution up until the final analysis of the data. You will also be invited to check and amend your contribution before the final analysis and reporting of data. If at any point you wish to withdraw from the study, you should contact me at Victoria.Grinyer@X.ac.uk.

What will you do in the project?

If you choose to take part in my study, you will be required to be involved in a 15/20-minute interview. During this interview, I will ask questions about your experiences and perceptions of the face-to-face sessions and online learning. During the individual interview, the conversation will be recorded electronically in order to capture the conversation.

What happens to the information in the project?

Once the information from the interviews has been transcribed, you will be invited to check the details of this information to provide you with the chance to correct or change anything you are unhappy with. You will also be invited to read the representation of the findings in the final report, to ensure that what you might have said has been interpreted and reported correctly.

Will the information I give in this study be kept confidential?

All the information gathered in the study will be strictly confidential (and only shared with the research team at UCLan (if necessary). All participant information will be fully anonymised during data analysis, throughout the storage of the data and within the final publication of the report. The information you provide may be used to write reports that may be seen publicly, although you will not be identifiable in such cases. The results of this study may be published in research journals or presented at conferences. You will be able to withdraw your anonymised data from the individual interviews up until the final analysis of the data (this information cannot be withdrawn once it has been included in the final analysis of the data and in the final thesis).

The interview data will be stored electronically on the University server (which is protected and secure) for 5 years after the completion of the research project and may be stored (after it has been anonymised) in a specialist data centre for use in future research. Any paper documentation will be stored in a locked cupboard in an office located on University premises for 5 years after the completion of the research project, after which time the data will be destroyed.

What are the possible benefits of taking part?

The findings of this research will inform and improve future practice regarding the pedagogy of e-learning for your programme and for other similar postgraduate (PG) programmes in the wider context. Importantly, it is hoped these research findings will improve the learning experience for the students engaging with the programme.

What are the potential risks to you in taking part?

If you choose to take part in this study, there will be no direct risk to you. If you take part in a face-to-face or telephone interview, this will be arranged at a time which suits you best.

What happens next?

If you wish to be involved in the project, you will be asked to sign a consent form to confirm that you are happy to be involved. If you do not wish to be involved in this research - many thanks for taking the time to read this information.

What will happen to the results of the study?

Once the project is completed, you will be invited to read the final report. The study findings will be used in my final thesis for my Doctorate in Education, as well as being published in an appropriate journal.

If you would like to request a copy of the findings, then you should contact Victoria.Grinyer@X.ac.uk to organise how you would like to receive this.

Researcher contact details:

Victoria Grinyer

Address provided

Telephone number provided

Who has reviewed the study?

This study was granted ethical approval by the University of Central Lancashire Research Ethics Committee for Business, Arts, Humanities and Social Science. (BAHSS)

Appendix 1.7: Research Consent Form – Tutor Copy

This project forms part of a Doctorate in Education (EdD) and it aims to explore the affordances of e-learning in terms of supporting primary school teachers undertaking Postgraduate Professional Development (PGPD), particularly in relation to building an online community of learners.

Title of study: Supporting primary school teachers engaging with postgraduate professional development: An exploration of the affordances of e-learning to build, support and sustain an effective community of learners.

Please take time to read the Information Sheet before completing this form carefully. If you are willing to participate in this study, please initial the appropriate boxes and sign and date the declaration at the end. If you do not understand anything and would like more information, please contact me at Victoria.Grinyer@X.ac.uk or by telephone on X.

	Please initial box
I confirm that I have read and understand the information sheet, dated……. for the above study and have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	
I understand that my participation in the study is voluntary and that I am free to withdraw from this study at any time, up to the point of completion, without having to give an explanation.	
I agree to be involved in a 15/20 minute individual interview, which will be arranged to suit a time best for me.	
I agree to the interview being captured electronically for the purposes of taking a transcript for notes and analysis.	
I understand that all participant information gathered in the study will be strictly confidential (and only shared with the research team at UCLan) and	

will be fully anonymised during data analysis, throughout the storage of the data and within the final publication of the report.	
I understand that if I take part in an individual interview, I will be free to withdraw my contribution up until the final analysis of the data.	
I understand that it will not be possible to withdraw my anonymised data from the study after final analysis has been undertaken.	
I agree that any information I provide may be used to write reports that may be seen publicly, although I will not be identifiable in such cases.	
I agree to the use of anonymised quotes in publications.	
I agree that my data gathered in this study may be stored (after it has been anonymised) in a specialist data centre and may be used for future research.	

I freely give my consent to participate in this research study and have been given a copy of this form for my own information.

Signature: …………………………………………………………….…………….

Date: …………………………………………………………………………………

If at any point you wish to withdraw from the study, you should contact me at Victoria.Grinyer@X.ac.uk

Appendix 2: Instrumentation
Appendix 2.1: Development of Interview Guide

DEVELOPMENT OF INTERVIEW GUIDE			
Main Research Question **What Affects Engagement in an Educational Online Community?**			
Subsidiary Research Question	**Potential Interview Question for Students**	**Potential Interview Question for Tutors**	**Probes as Required**
What are the factors that affect students' and tutors' preferences for online and face-to-face learning?	Could you tell me what you particularly value about the face-to-face days? Could you tell me what you particularly value about the online BB platform? Are there any aspects of the face-to-face days you prefer to online learning? Are there any aspects of online learning that you	Which aspects of the face-to-face days do you think are particularly important to the students? Which aspects of the online BB platform do you think are particularly important to the students? Which aspects of the face-to-face days are important to you? Which aspects of the online BB platform are important to you?	Could you give me an example? Is it possible for you to elaborate on that idea? Could you explain that further? Is there anything else?

	prefer to the face-to-face days?	Are there any aspects of the face-to-face days you prefer to online learning? Are there any aspects of online learning that you prefer to the face-to-face days?	
What are the factors that contribute to active engagement in an e-learning community?	Can you tell me about your experiences of the discussion threads on Blackboard to engage with others? How do you feel about engaging with the discussion boards on Blackboard? In which way do you think these threads are important (or not) and why? Is there anything that would encourage you to	How do you think the students feel about engaging with the discussion boards on Blackboard? How do you feel about engaging with the discussion boards on Blackboard? In which way do you think these threads are important (or not) and why? Is there anything that you think could be done to	

	engage with others in the discussion boards more?	encourage students to engage with the discussion boards more?	
What are the factors that discourage active engagement in an e-learning community?	Can you tell me about your experiences of the discussion threads on Blackboard to engage with others? How do you feel about engaging with the discussion boards on Blackboard? What, if anything, prevents you from engaging with the discussion boards with each other?	How do you think the students feel about engaging with the discussion boards on Blackboard? How do you feel about engaging with the discussion boards on Blackboard? What do you think would encourage the students to engage with the discussion boards more? What, if anything, do you think prevents students from engaging with the discussion boards with each other?	

| How can tutors best support the development of an e-learning community? | Is there anything that would encourage you to engage with the discussion boards more?

What do you think tutors could do to better support you to engage with the discussion threads? | Is there anything you think tutors could do to encourage the students to engage with the discussion boards more? | |
|---|---|---|---|

Appendix 2.2: Interview Schedule with Amendments from Pilot Interviews (Amendments Highlighted in Red)

Interview Question	Amendments after Pilot Interviews
Why did you join the programme? What were you hoping to gain from doing it?	No change to question.
In relation to social media, **do you engage with this or not?**	In relation to social media, **to what extent do you engage with this?**
Could you describe any specific aspects of the face-to-face days which have been particularly important to you?	No change to question.
Could you describe any specific aspects of the **online learning** environment which have been particularly important to you?	Could you describe any specific aspects of the **Blackboard online learning** environment which have been particularly important to you?
Are there any aspects of the face-to-face days you prefer to online learning through Blackboard?	No change to question
Are there any aspects **of online learning** that you prefer to the face-to-face days?	Are there any aspects **of online learning through Blackboard** that you prefer to the face-to-face days?
Can you tell me about your experiences of using the discussion threads on Blackboard to engage with other students?	No change to question
How do you feel about engaging with the discussion boards on Blackboard?	No change to question

In which way do you think these threads are important (or not) and why?	No change to question
What, if anything, prevents you from engaging more with **each other online?**	What, if anything, prevents you from engaging more with **each other online through Blackboard?**
Is there anything that would encourage you to engage with others through the Blackboard discussion boards more?	No change to question
Is there anything you think tutors could do to better support you to engage with the discussion threads?	No change to question
	What do you think about the Blackboard site in terms of allowing you to network with others? **Additional question from pilot interview and discussions with supervisor.**

Appendix 2.3: Interview Schedule for Students for Stand Alone Interviews and Focus Group Interviews

Interview Schedule for Students
Why did you join the programme? What were you hoping to gain from doing it?
In relation to social media, to what extent do you engage with this?
Could you describe any specific aspects of the face-to-face days which have been particularly important to you?
Could you describe any specific aspects of the Blackboard online learning environment which have been particularly important to you?
Are there any aspects of the face-to-face days you prefer to online learning through Blackboard?
Are there any aspects of online learning through Blackboard that you prefer to the face-to-face days?
Can you tell me about your experiences of using the discussion threads on Blackboard to engage with other teachers?
How do you feel about engaging with the discussion boards on Blackboard?
In which way do you think these threads are important (or not) and why?
What, if anything, prevents you from engaging more with each other online through Blackboard?

Is there anything that would encourage you to engage with others in the Blackboard discussion boards more?
Is there anything you think tutors could do to better support you to engage with the Blackboard discussion threads?
What do you think about the Blackboard site in terms of allowing you to network with other colleagues?

Appendix 2.4: Interview Schedule for Tutors

Interview Schedule for Tutors
Why did you start working on the programme?
What were you hoping to gain (or give) from working on the programme?
In relation to social media, to what extent do you engage with this?
Could you describe any specific aspects of the face-to-face days which have been particularly important to you as a tutor?
Could you describe any specific aspects of the Blackboard online learning environment which have been particularly important to you as a tutor?
Are there any aspects of the face-to-face teaching that you prefer to online teaching through Blackboard?
Are there any aspects of online teaching through Blackboard that you prefer to face-to-face teaching?
Can you tell me about your experiences of using the discussion threads on Blackboard to engage with students?
How do you feel about engaging with the discussion boards on Blackboard?
In which way do you think these discussion threads are important (or not) and why?

What, if anything, do you think prevents students from engaging with the discussion boards with each other?
Is there anything that you think would encourage students to engage with others more in the Blackboard discussion threads?
Is there anything you think tutors could do to encourage the students to engage with the discussion boards more?
What do you think about the Blackboard site in terms of allowing students to network with other colleagues?

Appendix 2.5: Amended Follow Up Interview Questions (After Focus Group 1)

Interview Question for Students	Rationale for Research Question
Can you think of a specific time during the course when you have felt connected or part of a community? Could you explain about that experience?	These questions were based on questions that were asked in the following article: Reilly, J., Gallagher-Lepak, S. & Killion, C. (2012) 'Me and My Computer': Emotional Factors in Online Learning', *Nursing Education Perspectives*, 33 (2) pp100-106
Can you think of a specific a time during the course when you have felt isolated and/or unknown? Could you please explain about that experience?	These questions were useful in terms of eliciting specific points in the programme when students felt connected/isolated (as these linked to the early themes I had created) as well as trying to find out what was happening that made them feel either connected or isolated. These questions (and the information gleaned from them) were also useful when reflecting about elements of Wenger's conceptual framework.
Could you tell me more about your previous experiences of engaging with others online (i.e. either through BB, or social media or the use of private email) prior to joining the programme please?	This question allowed me to gain a deeper insight into the students' background regarding their use of online communication. It also allowed exploration of their confidence levels regarding their use of online communication, which was a theme from the early data analysis.

Can you tell me more specifically about your experiences of using the discussion threads on Blackboard to communicate with other teachers?	These questions allowed the students to expand about their feelings and thoughts about posting and communicating through the Blackboard discussion threads.
How did/do you feel about communicating through the discussion boards on Blackboard? How has this impacted on your learning?	
Can you tell me about your experiences of using other online communication (i.e. Facebook or private email outside of Blackboard) to communicate with other teachers on the course?	These questions allowed the students to expand about their feelings and thoughts about posting and communicating through other platforms outside of the BB area.
How do you feel about communicating with others on the course through other communication platforms/private communications outside of the BB area?	
How has this impacted on your learning?	This question relates to the theme of 'learning' which arose from the early analysis of the individual interview data. This question allowed me to explore the extent to which students' feelings about different forms of online communication affected their engagement levels and their learning. It also allowed exploration of the difference (if any) between students' feelings in relation to engaging with the BB discussion threads compared with other social media platforms outside of the BB area.

Throughout your time on the programme, what have you (and your peers) done to build a learning community? (either through face-to-face contact or through online platforms)	This question was based on a question asked in the following article: Reilly, J., Gallagher-Lepak, S. & Killion, C. (2012) 'Me and My Computer': Emotional Factors in Online Learning', *Nursing Education Perspectives*, 33 (2) pp100-106 This question invited students to explain more clearly how they created their own learning communities (as my early findings had suggested that some students had created successful online learning communities).
How would you feel about the creation of a programme discussion board on Facebook (or some other platform outside of Blackboard)?	This question allowed for exploration of the students' thoughts and feelings about using other online platforms (other than the BBDBs) within the University online environment.
What do you think can be done to facilitate a strong sense of community in a blended learning course such as X?	This question is also based on a question asked in the following article: Reilly, J., Gallagher-Lepak, S. & Killion, C. (2012) 'Me and My Computer': Emotional Factors in Online Learning', *Nursing Education Perspectives*, 33 (2) pp100-106 This question closely relates to one of my research questions about what

	tutors can do to build and sustain effective online learning communities.

Appendix 2.6: Interview Schedule for Follow Up Interviews (After Focus Group 2)

Interview Schedule for Follow Up Interviews (After Focus Group 2)
In the FG interview in June, you briefly mentioned that you and your colleague have supported each other through each phase of the programme. Can you talk me through a specific example of when you have provided encouragement and moral support to your colleague (either through online communication or through face-to-face interaction)?
Can you talk me through a specific example of when you have felt moral support and encouragement from your colleague (either through online communication or through face-to-face interaction)?
Can you talk me through an example of when you have supported each other in your learning (either through online communication or through face-to-face interaction)?'
Is it possible to reflect about (and explain) the difference (if any) between the way you felt supporting one another online and face-to-face?

Appendix 3: Visual Display of Codes and Themes From Tutor Data.

	ONLINE LEARNING		FACE-TO-FACE LEARNING	
BROADER THEME	CODE	ISSUES NOTED	CODE	ISSUES NOTED
BEING HUMAN	BUILDING RELATIONSHIPS	*'I mean whether they have individual contacts? Last year's group set up their own WhatsApp group to communicate with each other. I didn't get part of it, they just had it for themselves and I am not quite sure how much they used that for their own internal support'.*	BUILDING RELATIONSHIPS	*'Relationships are really important. It's like in the classroom, when you are face-to-face you can gauge how somebody is feeling or what they are thinking or if you need to offer more or if they need some support to make a contribution'.* *'It is important to meet the students because face-to-face you get a feel of who they are, and they get a feeling of who you are, and it becomes more personal'.*

|	**FEELING COMFORTABLE**	'…whether it is me and the stage I am and not being brought up so much with online, I don't personally feel au fait and comfortable with it'.	**FEELING COMFORTABLE**	'I feel as though everybody is a bit more relaxed when it is face-to-face. The body language, individual conversations with students, getting to know them and students supporting each other and getting to know each other'.
	NONVERBAL COMMUNI-CATION	'It is about that assessment for learning as well, whether you are working with an individual or working with a group. Having that discussion you can make that		'I think I prefer all aspects of face-to-face teaching than online teaching because I can see the teachers' responses immediately'.

		judgement, you can ask those other questions to make sure that what you are saying is appropriate to their context and situation whereas in an online response there is always that worry of 'Have I missed something?', 'Have I got the right person in mind?', 'Can I remember about their context?', 'Have I got them confused with		

		somebody		
		else?'		

Appendix 4: Thematic Map Based on Student Data – An Example of My Work in Progress

Exploration of Thematic Map

The overarching themes in the thematic map presented below are displayed in red boxes. The boxes surrounding the main themes contain the code names which include direct comments made by the students and/or my reflections about the meaning of the code. The arrows demonstrate how I interpreted the themes and codes to relate to each other. For example, the code 'Interpretation' was linked to the codes named 'Reluctance' and 'Emotions' as these connected codes were suggestive of a relationship between students' concerns about how their posts might be interpreted, their emotions and their disinclination to post comments on the BBDBs. These codes were also linked to the code named 'Confidence' and to the overall theme of 'Technology' as these connections potentially indicated a relationship between students' confidence levels and their use of technology. 'Reluctance', 'Interpretation' and 'Emotions' were connected to the code named 'Permanence' as several students reported that they did not like the permanent nature of the posts on the BBDBs which suggested a potential relationship between students' dislike of the permanence of posts, their emotions and their reported reluctance to post comments on BBDBs.

40
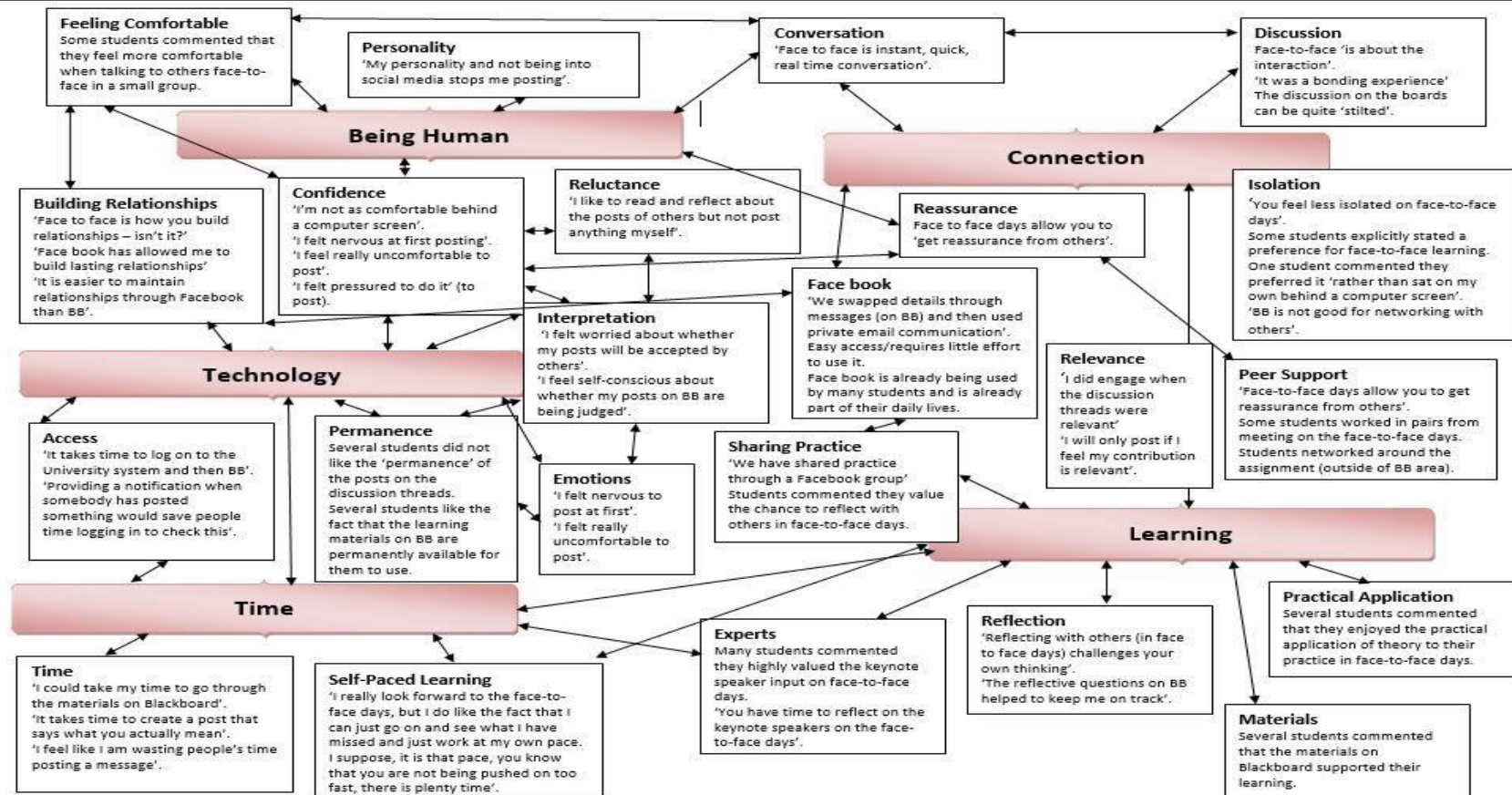
Appendix 5: Audit Trail Extract

Data Collection

- In total, 23 semi-structured interviews were carried out with 20 students and 3 course tutors between October 2016 and March 2018. The student interviews ranged from 15.23 to 33.12 minutes long. The tutor interviews ranged from 28.24 to 38.35 minutes long. They were recorded with permission from the participants and were transcribed verbatim. Participants were invited to check and amend their contribution.

- Two FGs were carried out with a group of five students and a group of two students. These interviews lasted for 28 and 40 minutes long, they were recorded with permission from the participants and were transcribed verbatim. Participants were invited to check and amend their contribution.

Managing the Data Analysis

- Thematic analysis was used to analyse the data gathered.

- Codes were generated from the first reading of the data and noted on the right hand side margin of each transcript (for example, codes like TIME for time or ANX for anxious).

- It was noted from the first three interviews that all the interviewees had mentioned they had communicated with other students from the course through online platforms outside of the Blackboard area. From the comments made, it seemed some students had made their own private groups using platforms ranging from telephone communication, private emails and the private messenger tool on Facebook. This made me wonder whether other students from the course had done this and if so, why had they chosen to do this? I also wondered how regularly the students had communicated through platforms outside of the BB area and what their communication was about.

- It seemed important to my research focus to examine whether this was common amongst the other participants, as well as exploring how and why students might have chosen to use other online communication tools rather than the BBDBs.

- Reflecting on this observation led me to add the question 'Did you communicate with people from the course in any other way, for example through private

emails? If so, could you tell me more about that?' to the interview schedule from this point onwards. This question allowed for exploration of whether other students had shared the same experiences in this regard, as well as examining the reasons why private online communication platforms might have been used and what they might have been used for.

Appendix 6: Dissemination

Appendix 6.1: Abstract for Poster Presentation, Annual Conference for

Research in Education (ACRE): Values in Education, Edge Hill University, 2016

Supporting Primary School Teachers Engaging with Postgraduate Professional Development: An Exploration of the Affordances of e-learning to Build, Support and Sustain an Effective Community of Learners.

This research aims to investigate the affordances of e-learning in terms of supporting primary school teachers undertaking Postgraduate Professional Development (PGPD) to engage in a community of learners. The research intends to examine the factors that support or prevent students from engaging in online learning with each other. The PGPD modules discussed in this study have a strong focus in relation to improving primary school teachers' practice leading to impact in the classroom. The modules are designed to provide teachers with the chance to critically evaluate their own and colleagues' practice, as well as having opportunities for explicit discussion and reflection, through collaborative learning. It has been suggested that providing such opportunities can transform teachers' classroom practice (Advisory Committee on Mathematics Education, 2013; McAteer, 2012).

Using case study will enable the author to go into detail 'to unravel the complexities of the situation' (Denscombe, 2010: 53) regarding the effectiveness of e-learning. Conducting focus groups and interviews on a specific topic (Robson, 2002), namely e-learning, will provide an opportunity to explore the participants' perceptions of e-learning. Through exploring the views of the students and tutors, the author hopes to better understand how to build an effective online community of learners, as well as progressing their understanding of how tutors can support students to actively engage in online learning with each other. The findings of this research will inform future practice regarding the pedagogy of e-learning for the PGPD programme involved in this research and for other similar programmes in the wider context. It is hoped these findings will contribute to the professional education of teachers and impact on the teaching of mathematics in primary schools.

ADVISORY COMMITTEE ON MATHEMATICS EDUCATION, 2013. Empowering teachers: success for learners. [online]. 44 (November). Available from: acme-uk.org.

DENSCOMBE, M., 2010. *The Good Research Guide for Small Scale Social Research Projects*. 4th ed. Berkshire: Open University Press.

MCATEER, M., ed., 2012. *Improving Primary Mathematics Teaching and Learning*. Berkshire: Open University Press.

ROBSON, C., 2002. *Real World Research*. 2nd ed. Oxford: Blackwell Publishing.

What Affects Engagement in an Educational Online Community? Investigating a Blended Learning Course for Primary School Teachers Undertaking Postgraduate Professional Development.

The Teachers' Professional Development (PD) standards (Department for Education, 2016) expect that PD includes planned discussion between teachers. Participating in e-learning communities is a valuable way of enhancing teachers' PD (Holmes, 2013). However, teachers' engagement with asynchronous online platforms can be affected by feelings of anxiety, a perceived lack connection to others (Reilly et al., 2012) and technology issues. This study investigated the factors that affect teachers' engagement with e-learning communities in a blended postgraduate PD course.

Focus groups and interviews were conducted to explore participants' perceptions of asynchronous Blackboard discussion boards and face-to-face communication. Results revealed that engagement with e-learning communities is affected by several interrelated factors, some of which relate to being human (i.e. emotions, relationships, power relations, agency, prior experiences and personality), whilst others relate to technology usability. Additionally, this research identified that teachers created e-learning communities using social media platforms, which were a valuable source of professional, academic and personal support. This research contributes to the pedagogy and theory of e-learning communities through identifying several crucial elements which support the conditions required for people to make meaning with others (Wenger, 1998) through online communication. These findings will be useful to educators who are designing similar blended learning courses.

Keywords: e-learning communities, online communication, asynchronous online platforms, Blackboard discussion boards, emotions, social media platforms, support

DEPARTMENT FOR EDUCATION, 2016. *Standard for teachers' professional development*. www.gov.uk/government/publications.
HOLMES, B., 2013. School Teachers' Continuous PD in an Online Learning Community:

Lessons from a case study of an eTwinning Learning Event. *European Journal of Education*. 48 (1), pp. 97–112.

REILLY, J.R., GALLAGHER-LEPAK, S., and KILLION, C., 2012. "Me and My Computer": Emotional Factors in Online Learning. *Nursing Education Perspectives*. 33 (2), pp. 100–105.

WENGER, E., 1998. *Communities of Practice: Learning, Meaning, and Identity*. Cambridge: Cambridge University.