Factors that affect the embedding of blended learning and how they vary across organisational levels within an English Further Education College.

Submitted by Lea Helen Thomson to the University of Exeter
as a thesis for the degree of Doctor of Education, December 2019.

(Signature) ……

(Word Count: 52,207)

Abstract

This thesis builds on and contributes to work in the field of adoption of blended learning (BL) within the context of the English Further Education (FE) sector.

The research, a single-site case study guided by grounded theory, aimed to identify the key drivers and barriers to BL adoption within one English FE College from the viewpoints of policy makers, managers and teachers then compare them, with the goal of identifying where they differed and the impact this has on BL implementation.

Although other recent studies (e.g. Armstrong, 2019; Paulson and Campbell, 2018) have examined the barriers and drivers for BL adoption within educational institutions, very few have focused on FE and to my knowledge none have attempted a qualitative, multiple-perspective comparison. As such, this study provides valuable insight into the underdeveloped literature base of FE and introduces the concept of research into the interplay between different viewpoints in relation to perceived barriers and drivers for BL integration into the curriculum.

Through document analysis and interviews, I discovered there are some fundamental differences in the barriers and drivers perceived by the different groups. These differences had created a lack of clarity of vision in relation to eLearning goals and implementation. Furthermore, the programs and resources produced by policy makers did not match the collaborative, social environments favoured by teachers and managers to develop and implement eLearning programmes.

Findings correlate with those of social learning theorists such as Vygotsky (1980) and Bruner (1991), suggesting that social interaction and collaboration was one of the most important drivers of successful eLearning adoption.

Finally, whilst successful leadership and management of the change process was key for an holistic approach to BL adoption, findings suggested that, as indicated in Rogers' (1995) Diffusion of Innovation model, early adopters of technology within departments who promoted sharing of practice were able to successfully drive eLearning adoption within their departments from the bottom up.

Acknowledgements

I would like to acknowledge the support of my two supervisors, Vivienne Baumfield and Annabel Watson, whose patience, practical guidance and encouragement were invaluable throughout this process.

My family have forfeited a lot of family time whilst I have been working on this project. Thank you to my two children, Lauren and Sam, who have been unwaveringly optimistic and supportive throughout. Also to my husband, Campbell, who has experienced years of weekends on his own whilst I have been cloistered in my study. He has been enthusiastic, supportive and driven me on to complete this work. I couldn't have done it without him.

Table of Contents

List of Tables

List of Illustrations

List of Abbreviations

AoC	Association of Colleges
BIS	UK Government's Department for Business, Innovation and Skills
BL	Blended Learning
DfE	UK Government's Department for Education
eLearning	Electronic-based Learning
ETF	Education and Training Foundation
FE	Further Education
FELTAG	Further Education Learning Technology Action Group
JISC	Joint Information Systems Committee
LMS	Learner Management System
m-Learning	Mobile phone-based learning
MOOC	Massive Online Open Course
NEET	Not in Education, Employment or Training
OECD	Organization for Economic Co-operation and Development
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organization
VLE	Virtual Learning Environment

1 Introduction to the Research Area

1.1 Overview

There are, at present, considerable external pressures for FE Colleges in England to adopt BL technologies. Funding cuts, changing student populations and measures of effectiveness based on technology usage are all environmental factors which encourage College managers to look at the use of technology to enhance learning. From a learner's perspective, research indicates that embedding BL into the curriculum also provides opportunities to improve active learning, tailor learning to suit the complex needs of students, and improve the efficiency and motivation of both teachers and students. However, it is unclear how these personal and organisational factors work together.

Part of the issue in tackling such a huge topic in a research project is identifying the limits of the scope of the project, and that is the aim of this chapter. Chapter One introduces the research problem to be covered within this research and some background to the context of the study. The significance of this research will be discussed alongside the research aim and objectives, with an outline of the structure of this thesis concluding the chapter.

1.2 Introduction to the Research Problem

Embedding technology-based learning (or blended learning) into pedagogical practice is often seen by policy makers as a way of providing cheap and effective education to groups that may otherwise not be able to access learning (e.g. JISC, 2004, p9). However, those "on the ground" may not see it that way, with concerns about the amount of time taken to learn the technologies and construct resources, and the potential lack of student ability to use technologies for learning.

Although there is an expanding knowledge base regarding potential drivers and barriers for BL adoption, this tends to focus on specific levels within the organisation, for example research based only on teachers, or only on students. During my literature review I was unable to find any research which compares barriers and drivers for BL across an organisation to identify how these may differ between levels.

This research is a case study, investigating the perceived impacts, barriers and drivers for BL within one English FE College across three decision-making levels: policy makers (the Government, its

agencies and quality assessors), College managers and teachers. It then compares the differences between the different levels and suggests potential impacts these differences may have on the effective adoption of BL within the College.

To gain a wider understanding of the contextual impacts in relation to embedding BL into the FE curriculum, we will begin with a short review of the research context.

1.3 Context of the Study

The Nuffield Foundation, a politically independent research group which focuses on educational opportunity and social well-being in the United Kingdom, has expressed concern about the "relative neglect (of FE) in both financial and policy terms" (Belfield et al, 2018, p4) and this forms a useful starting point for considering the context of this study.

1.3.1 Funding and Policy

The global recession, which began around 2009, resulted in the largest UK Government budget deficit in UK history (BBC, 2009). This forced the government to look at ways to reduce public spending. Whilst the entire education sector faced reduced funding, FE received the brunt of the cuts. For example, in 1990 – 91, spending per student was 50% higher in FE than in secondary schools. Now it is around 8% lower (Belfield et al, 2018). Adult funding in particular has dropped dramatically, with many students over the age of 19 now expected to take out loans to pay for courses at level 3 or higher. This may have contributed to the significant drop in numbers of those over the age of 19 attending FE, almost halving from 4 million in 2005 to 2.2 million in 2016 (ibid).

FE has an important role in improving social mobility by supporting the underprivileged into higher education and employment (Great Britain, Department for Education, 2016). Therefore, cutting funding at a time when the UK has the second most unequal income in the European Union (OECD, 2017) would appear detrimental to UK society (Kewin, 2018).

Not only is funding decreasing, but it is also closely tied to student recruitment targets, which have increased year on year for the College in this study, although the pool of potential students is declining (HEFCE, 2015). Nationally, the number of 16 – 18-year-old students participating in FE has dropped from 1.07 million students in 2011/12 (Great Britain, Department for Education,

2013) to 882,900 in 2017/18 (Great Britain, Department for Education, 2019). Whilst this is partly due to changes in population age structure across the UK, this issue is exacerbated by "mission creep" between schools, FE Colleges and universities, where institutions are recruiting from the same student base. This has in effect created an "education marketplace" where educational institutions are competitors (FERSG, 2012). Whilst this offers more choice for students, it does have some negative consequences, in that institutions are often unwilling to work together or share data, and in some reported cases schools have actively discourage students from attending College and blocked advice and information about FE to retain students (ibid). BL is seen by managers and policy makers as offering opportunities to attract students to the College. This may be through visibly engaging, flexible learning demonstrated at open days, targeted social media campaigns and websites, and online short courses to attract adult learners who may have too many external commitments to commit to a full-time traditional classroom-based course (Northampton University, 2017; Law, 2015; Stacey, 2012).

1.3.2 National Reviews

The embedding of technology-based learning in the curriculum is particularly relevant at the time of writing as FE Colleges are currently undergoing a national review. Areas in which BL has been indicated to have a positive effect, such as student attendance and achievement (Andrew, 2001) and financial effectiveness (Sibley, 2013) are measures used by Ofsted and the National Area Review Steering committees to assess the viability of FE Colleges (Ofsted, 2019; Great Britain, Department for Business Innovation and Skills, 2016). Those with weaker measures have been encouraged to merge with other Colleges or HE institutions. This resulted in a reduction in the number of FE Colleges from 414 in 2011 to 335 in 2015, with this number expected to reduce further. Colleges with strong financial positions and good technical infrastructure which supports student achievement put themselves in a better position with regards to merger possibilities than those who do not, thus increasing emphasis on learning technologies used in an efficient way to improve student progress.

1.3.3 The College in this Study

The College in this study is a medium to large sized College, offering a mix of vocational and academic FE courses. The College also works in partnership with two regional universities to provide a range of Higher Education courses. According to the College website, it has around 9,000 students attending three different sites, and most of these students are between 16 and 18 years old.

There are approximately 600 permanent employees and 300 employees who work on a flexible basis. The College has two full-time members of staff committed to development of BL use by teachers and students. An "IT Hero" is allocated to each school within the College, to support subject-based BL practice, alongside six "Advanced Practitioners" whose role is to improve general pedagogical practice within their allocated departments.

Whilst there appears to be a range of drivers and initiatives to incorporate BL into everyday teaching practice in the College, progress is considerably faster in some departments than others. BL professional development sessions are oversubscribed during the mandatory "Continuing Professional Development" days held for staff at the College, but any other BL development sessions are poorly attended.

1.4 Significance, Research Aim and Objectives

Whilst the literature is growing in relation to issues affecting BL, the theory behind it is still immature and there are many issues still to be investigated and studied (Alkharang, 2014). Research I reviewed tended to concentrate on one level in the organisation (for example, teacher or student-focused investigations) rather than considering the cross-organisational impacts. In comparison, where cross-level research had been undertaken, such as that by Natia and Al-hassan (2015), a deeper knowledge was gained in terms of the contextual and social issues that may constrain or promote BL use within an organisation.

Although BL adoption is a frequent topic at FE conferences, I was unable to find any research that investigated how cross-organisational factors affected BL adoption in FE Colleges in England. There is an excellent doctoral thesis by Anderson (2012) which looks across organisational process and individual cases to determine the enablers and barriers to BL adoption, but this is focused on an Australian Higher Education institution and is now over seven years old. My own research builds on existing theory by providing insights into both the English educational context and the FE environment. To maintain an achievable scope for this research, I will follow Anderson's (2012) lead and focus on a single case-study approach, with one English FE College.

Mark Ravenhall (2014) acknowledges that FE is often regarded as the "Cinderella Service" in education in the United Kingdom and that it is under-researched. He suggests that this lack of research leads to less visibility in the media and subsequent public debate, making it difficult for institutions to seek public support against detrimental policy changes such as funding cuts or working practice changes.

It is my aim that this thesis will identify the key factors regarding successful institution-wide embedding of BL into the College curriculum. This will then encourage consideration of an holistic approach to BL adoption within FE institutions, both within the United Kingdom and in other countries. I also hope it will stimulate further research into FE-specific issues and provide a blueprint for other institution-wide studies in the future.

In summary, my research objectives are as follows:

1. Complete a critical review of existing literature relating to whole-institution adoption of BL as part of pedagogical practice.
2. Identify the perceived impacts the adoption of BL will have on the College from the perspectives of three different levels of stakeholders: policy makers, managers and teachers.
3. Determine whether the abovementioned impacts are perceived as barriers or drivers to the adoption of BL in the College.
4. Identify where the drivers and barriers differ between each level and the impact this has on implementation.
5. Recommend best practices to promote drivers and minimise barriers to BL embedding in the curriculum within the College.
6. Suggest further research which could extend the findings of this study in the field of FE.

1.5 Thesis Outline

This doctoral thesis contains six chapters. The structure was based on frameworks recommended by Gray (2012) and Dunleavy (2003) with minor amendments made after a review of existing PhD papers related to blended learning.

A diagrammatic representation of the thesis structure is shown below.

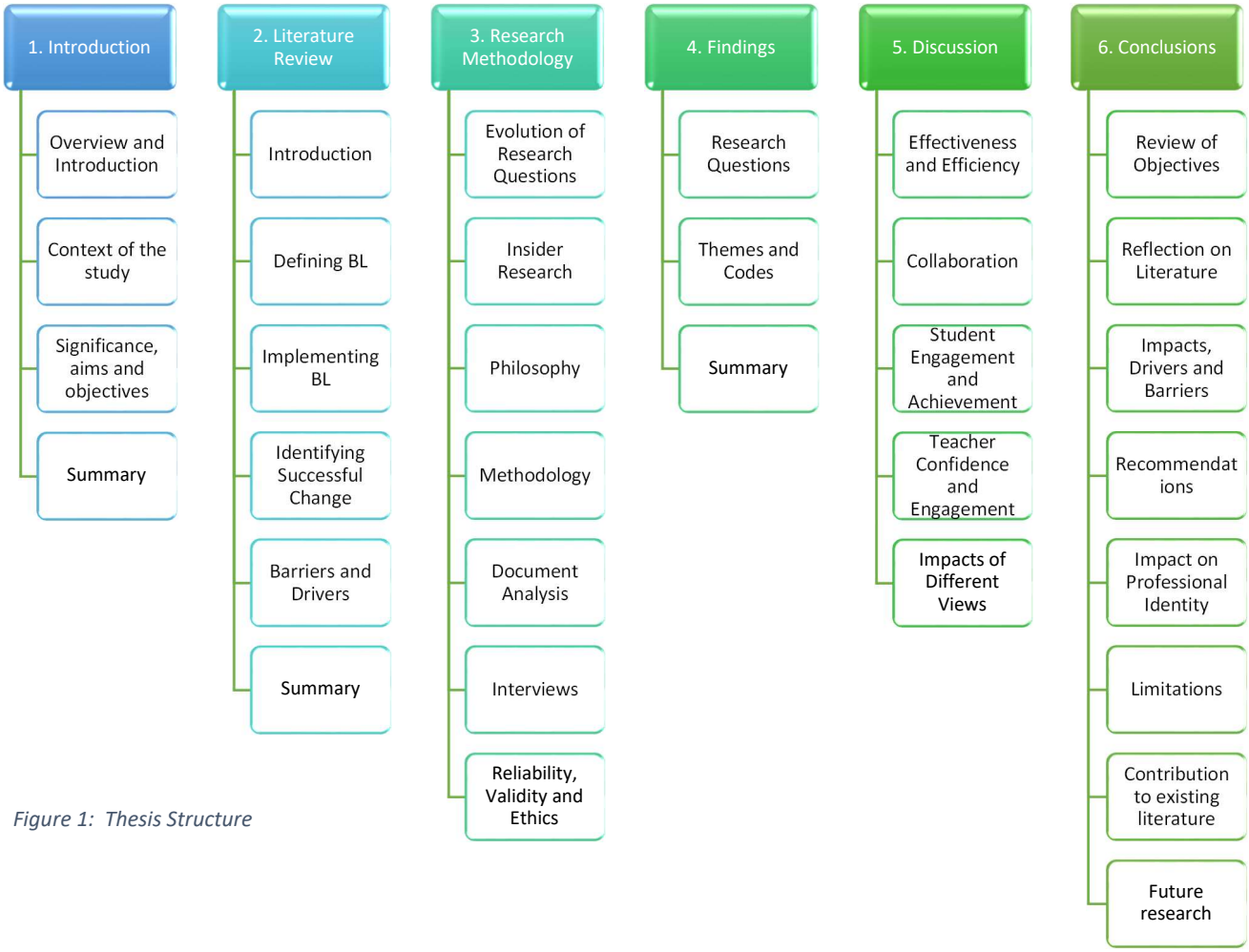


Figure 1: Thesis Structure

1.6 Summary

Existing research suggests that although the knowledge base relating to implementation of BL is growing, there is very little available in relation to multi-level, whole-institution research. Also, there is an ongoing debate regarding the lack of research into FE in the United Kingdom and the negative implications this has on policy and process.

This research aims to fill a gap in knowledge regarding the factors which affect the adoption of BL, as perceived by policy makers, managers and teachers within an English FE College, and how these influence the implementation process.

It is hoped that this will contribute to a blueprint of best practices for encouraging BL adoption for the College under study, with potential for use by other English FE institutions.

This chapter gave an outline of the research context, significance, aims and objectives. It also included an outline of the thesis structure, and the purpose of each chapter.

The next chapter critically analyses the research which forms the base of this study.

2 Literature Review

2.1 Introduction

The aim of this literature review is to provide an overview of the existing areas of research and theory relating to the adoption of eLearning within the College. This is broken down into five key questions:

- **"What is BL?"** explores definitions of "blended learning".

- **"How can BL be implemented?"** looks at how change theory may be applied to adoption of BL within the College.

- **"Who is responsible for BL implementation?"** looks at the advantages and disadvantages of implementing blended learning from a top-down, management-led approach or a bottom-up teacher and student-led approach.

- **"How can we identify successful BL implementation?"** considers the pitfalls in measuring successful adoption of change and suggests different perspectives in viewing the success or failure of BL adoption within the College.

- **"What are the barriers and drivers of BL implementation?"** looks at existing studies into the barriers and drivers of blended learning implementation.

2.2 What is BL?

Many definitions of BL (e.g. Collins, 2020; Graham, 2006) are restricted to a description of delivery methods, defining it as a combination of online and face to face learning. Panopto (2019) extends this to consider its impacts, defining BL as:

> "A method of teaching that integrates technology and digital media with traditional instructor-led classroom activities, giving students more flexibility to customise their learning …and creating a richer learning experience."

There is a plethora of resources and tools available, including interactive whiteboards, tablets, smartphones, video, adaptive learning platforms, learner management systems (such as Moodle and Blackboard), virtual reality applications, quizzes and games, and web-based interactive activities. However, as indicated by Panopto's (ibid) definition above, simply interspersing digital media in a lesson as a replacement for traditional teaching materials, with continued use of traditional pedagogical practice, or duplicating the course content in different formats, does not constitute blended learning. Instead, the in-person and digital materials should complement each other in such a way as to improve the learning experience of the student (TeachThought, 2020; Panopto, 2019), and pedagogical practice will generally need to change to make the most of this delivery method (Kenney & Newcombe, 2011).

In his book "Stratosphere", Michael Fullan (2013) acknowledges this point, indicating that a sound knowledge of pedagogical practice, educational technologies and change management are important to successfully implement College-wide blended learning. With this in mind, the next section reviews change management theory before looking at the ways this can be used to successfully implement cross-College blended learning.

2.3 How is BL Implemented?

If we were to condense this thesis into one word, the word would be “change”. This project looks at change from not only different organisational perspectives, but also different concepts within those levels, such as changes in pedagogical practice, changes in individuals’ concepts of their role, changes in technology and changes in College structures, resources and policy. It is therefore important to understand the process of change, and how to support and motivate those undergoing the change process (Fullan & Edwards, 2017). This section looks at key models for organisational change before looking at the different management approaches to implementing change.

2.3.1 The Process of Organisational Change

Kurt Lewin’s (1947) three-step model of change is considered by many to be the definitive model of the organisational change process (Cummings et al, 2015). Lewin identified the interaction of different forces on change, developing a life cycle model which may be best summarised in three stages: unfreeze, change and refreeze.

The **unfreeze** stage involves encouraging individuals to move away from the status quo by reducing the factors which hinder change and increasing those which drive change, e.g. through recognizing the need for change and offering support for change.

Unfreezing is the most difficult part of the process. It involves understanding and communicating the core drivers for change whilst encouraging individuals to alter their existing habits and “own” the change process. Lewin identified this difficulty, suggesting “resistance to change is like a force field – requiring a substantial force to break it” (Lewin, 1947, p35).

The **change** stage involves moving individuals to where you want them to be in terms of the change. To do this, you need to have a clear picture of what you want to achieve and benchmarks to help you identify when you have met your goals. We will be discussing this further in section 2.5.

The final stage is to **refreeze** the change: to stabilize the change and normalize it as part of values and behaviours. Refreezing involves changing not only individuals' attitudes and behaviours but also the organisational structures, systems and culture to support holistic ongoing use of BL within the College (Uys, 2007). In the past, the Quality Manager at the College has expressed frustration at the lack of consistency and "stickability" of quality implementation of BL across the College, which indicates that refreezing change is an issue which requires attention.

2.3.2 Factors Affecting College-Wide Change and the Actors Involved

Rogers' (1995) Diffusion of Innovation model extends Lewin's (ibid) model, suggesting factors which affect the change process, defining the actors within the change process, and outlining ways that these can be managed to the point where there is no longer need for agents to drive the change: it happens on its own.

Rogers (1995, p207) suggests that the rate of adoption of innovations is determined by five key variables:

- The perceived attributes of the innovation;
- The type of innovation decision;
- The communication channels used;
- The nature of the social system involved;
- The extent of the change agent's promotion efforts.

The **perceived attributes of the innovation** relate to the way that BL is expected to fit within existing practices and systems, and the benefits the use of BL is expected to provide to teachers, students and the College as a business. These are discussed further in section 2.6.

The **type of innovation decision** has an important role to play in ownership of the change. Implementation of BL at the College is currently optional, but there is the prospect of it being demanded by policy makers in the near future in a top-down leadership approach. At present, successful BL implementation within the College appears to have been led from the bottom up, with teachers and curriculum managers working within their departments, and with peers from other institutions to decide on their goals and process for their implementation. We will be discussing the types of

innovation decision used in implementing blended learning, and the advantages and disadvantages of each, in section 2.4.

The **communication channels** used throughout the implementation affect its success. At present in the College, communication regarding BL tends to be done predominantly on a personal basis, through department group visits, individual training sessions and professional development group training sessions. Although there has been considerable discussion in the media regarding the FELTAG report (FELTAG, 2014), which recommended mandatory implementation of a minimum target for use of eLearning within Colleges, there has been very little College-specific communication regarding how this will affect the roles of teachers or managers from the principal or senior management team.

The **nature of the social system involved** is gaining focus as a key factor in implementing blended learning. For example, Joanne Quinn and Michael Fullan (Quinn & Fullan, 2017) promote creating a whole college culture focused on beliefs and strategy in relation to pedagogical practice as a way to develop coherent, agile change. I discuss this further in section 2.6.1.

The final factor identified by Rogers is how much **effort** the individual expects to have to put into promoting the implementation. This is discussed in detail as part of the barriers and drivers for BL in section 2.6.2.2, but also closely relates to the beliefs and attitudes of the individual. According to Rogers (ibid), there are five types of actor involved in the change process, based on their beliefs and behaviour. These are as follows:

- Innovators (2.5% of the group): these are risk-tolerant, well-connected individuals who act as gatekeepers, controlling the flow of new ideas.
- Early adopters (13.5% of the group): these are the opinion leaders; potential adopters look to them when considering adopting the innovation.
- Early majority (34% of the group) assess the success of the early adopters and adopt the innovation after a varying degree of time.
- Late majority (34% of the group) tend to be sceptics who adopt the innovation later than most.

- Laggards (16% of the group) have an aversion to change and tend to be less socially networked than innovators and early adopters.

Rogers points out it is important that we acknowledge the strengths and weaknesses of each type of actor and empower them to integrate BL into their pedagogical practice. For example, by focusing on identifying the early adopters and developing the social systems which help them communicate and share their success with other employees, we can help gain momentum for change across the College to the point where the change agents no longer need to actively promote it. Also, by identifying the laggards and investigating the reasons behind their aversion to BL adoption we can help remove their barriers to its use within their teaching practice.

According to Rogers, if individuals are enabled in this way, and are successful, there eventually comes a tipping point (between 3 and 16%) at which opinion leaders' adoption of BL reduces the need for others to drive the change.

There are some criticisms of Rogers' theory. For example, it tends to focus on top-down, one-way communication whereas in many instances two-way communication in a participatory approach is more effective (Robertson et al, 2007). Moore (2002) also points out that there is an assumption that the innovation will naturally move from one adopter category to the next, in an evolutionary model, yet each category has different attitudes and resources. Instead, Moore suggests it is best to focus on one category of adopters at a time, beginning with innovators. You can then use the success of this group to leverage buy-in from next group.

Although these are valid criticisms, Roger's theory provides useful practical guidance in facilitating the adoption of BL across the College. The terminology (early adopter, laggard, etc.) is already commonly used in management and IT groups within the College, so will form useful terms of reference within this study. However, some caution is required. Although the term "laggard" means one who makes slow progress compared to others, it does have negative connotations such as being associated with laziness. There may be many reasons why one is a laggard in relation to technology uptake, for example an assessment that the risks of adopting the change outweigh the benefits, or an inability to commit due to time pressures, and these must be considered.

2.4 Who is Responsible for BL Implementation?

Within our discussion of Rogers' (1995) Diffusion of Innovation model, we discussed the impact that the nature of the change decision has on ownership of the process and, in this section, I aim to explore these impacts in more detail.

BL may be implemented using a mandatory, top-down approach, a more collective, bottom-up approach, or a mix of the two (Satell, 2019; Browne, 2005).

Whilst Bathmaker (2013) suggests that top-down change is most prevalent in FE, there are benefits and disadvantages in all three types of approach when encouraging staff to adopt BL pedagogical practices. For example, whilst top-down implementation of BL may be of benefit in terms of providing central direction, meeting national standards of provision and maximising resource effectiveness, it removes teachers' power and control over their day to day teaching practices (Bathmaker, 2013; Lingfield, 2012; Collinson, 2009; Gleeson, 2007). In this section I will review examples of both types of implementation, discussing the advantages and disadvantages of each.

2.4.1 Imposed Change

Imposed, or "top down" change involves those on the "front line", such as curriculum managers, teachers and students, being mandated to use BL in the curriculum by higher authority. This authority may be a variety of sources including the governors of the College, DfE, OECD and UNICEF. Independent national reviews such as the FELTAG report (2014) may focus public opinion and drive change. To a lesser extent local authority regulations and local businesses also influence how Colleges operate, although in some areas where there are large international businesses this influence may be very strong (e.g. Derby College, n.d.).

A detailed example of an imposed BL implementation is provided in the American Alliance for Catholic Education (ACE) School improvement case study (D'Agostino & Kowalski, 2018). As recommended by Rogers (1995), this pilot had a clear and well-communicated goal: to improve academic achievement through a positive school

culture using BL as one facet of the implementation. The implementation also focused on the communication structures to support the change, identified by Rogers (ibid) as important to innovation adoption. It followed a two-and-a-half-year plan and included the following strategies:

- Developing school leadership teams to support the implementation. This included training and guidance on implementation of walkthrough observations of lessons to support teachers' adoption of new pedagogical practices. It also involved supporting the leadership in managing the project, developing their own BL skills and improving BL effectiveness.
- Intentionally fostering a school culture with a shared vision by implementing shared language, goals, routines and procedures.
- Facilitating data driven practices to measure change success.
- Encouraging peer collaboration and communities of practice amongst teachers and leaders.

The researchers found that the implementation process improved the shared vision of teachers for their school, along with teacher collaboration and use of blended learning. This, in turn, had a positive effect on the school as a whole. What the researchers did not mention in their discussion, but what was evident in the results, was the decline in confidence and feelings of being supported, that were evidenced after the implementation.

Any type of change involves risk to those involved (Fullan, 2015), but when those responsible for initiating the change are not involved in the day to day enforcement of the change, such as in the ACE study above, they may face less personal risk than the managers and teachers responsible for final implementation (Boyd, 1979). Also, Gleeson et al (2005) suggest that by imposing change you remove agency from those in the "front line", undermining their professional identities, with the assumption being that the change leaders know more about teaching practice than the teachers themselves (Billett, 2013; Boyd, 1979).

The perceived increased risk and reduced agency that may arise from imposed BL adoption could create a negative environment which does not support successful implementation. For example, Mather and Seifert (2014; p108) suggest that imposed

change can lead to “dull compliance, fear and resilience” whilst Wallace and Hoyle (2005) discuss head teachers and teachers reducing risk to themselves and their students by working around imposed change prescriptions in order to best meet the needs of their students, including adapting their practices to appear to meet the accountability measures passed down to them.

This paints a very bleak picture of the usefulness of imposed change to facilitate adoption of BL practices. However, as evidenced in the ACE study above, there are many benefits in using an imposed model for BL implementation.

Perhaps the most important benefit is clarity of purpose. When a clear statement of purpose and method is effectively communicated to those on the front line, it provides a powerful start to the change process (Satell, 2019), and supports employees in developing a shared framework of understanding and language in relation to the change that may help bind them together (Cameron and Quinn, 2011).

Where change is required quickly, for example in a crisis, coercive, imposed change may be the only effective option (Balogun and Hailey, 2008). Such change is generally fast to implement and is often perceived as having a very clear focus (ibid). In contrast, when there are a lot of people involved in leading the change, there is a risk that goals become unclear and time frames for implementation are extended (Huberman and Miles, 1984).

2.4.2 Bottom-up Change

Change within FE tends to be implemented from a top-down perspective (Bathmaker, 2013), and, as discussed above, studies indicate that this leaves FE teachers feeling constrained, with a “diminished sense of agency and a limited professional identity” (Thompson & Wolstencroft, 2019, p. 181)

In contrast, change which is instigated by those on the “front line”, such as teachers and students is known as “bottom-up” or “grass roots” change; i.e. where individuals without positions of authority make change without formal power (Kezar, 2012, pp 725,726). The College within this study has predominantly relied on grass roots change to implement BL approaches within departmental curricula, although this has been on an informal basis.

A case study undertaken by Bohle, Dailey-Hebert and Gijselaers (Bohle Carbonell, et al., 2013) at a mid-sized European university, took a more formal approach to their bottom-up BL implementation, as briefly outlined below.

In the first phase, between 2007 and 2008, an initiator team developed a project plan with a broad vision of what would be required to implement BL and how the successful implementation would look.

This plan was then passed to a group of fifteen pilot leaders, which consisted of one leader from each faculty. The pilot leaders were responsible for both implementing BL in their own area and sharing their experiences with other pilot leaders. This was undertaken between 2009 and 2012.

The researchers concluded that whilst the project took much longer than it would have done using a top-down implementation approach, it empowered the teaching team to create innovative BL which suited the local faculty requirements.

Their findings were similar to those of earlier studies by Osborne and Brown (2013) and Thomas and Willcoxson (1998), who identified the need to relate the change objectives to stated organisational objectives, and the need for the organisation to provide visible support and rewards for implementing successful changes, in order for bottom-up change to be successful.

Although bottom-up change may take more time and effort, the researchers in the above case study suggested a wider range of views, expertise and options were considered than could have been achieved through a smaller leadership team, leading to more complex and innovative solutions and ideas. However, the success of the implementation was very reliant on the leadership skills and entrepreneurial spirit of the pilot leaders, and their motivation, dedication and willingness to take risks. It also depended on the University providing the freedom and space for their teachers to innovate.

Pearce and Conger (2003) also cite the benefits of to be found by spreading responsibility for change adoption through bottom-up change, suggesting those involved in the process may be more likely to buy into the change and the power is spread more evenly, making the change less dependent on a small number of leaders. This assumes that those involved in the change have the willingness and capability to

lead the change and, according to some researchers (e.g. Fullan, 2015; Beresford and Beresford, 2010) this may not necessarily be the case.

It is not unreasonable to assume that, by the nature of their role most teachers are natural leaders and should therefore be comfortable leading a grass-roots implementation McPhail (2012). However, those who were pilot leaders in the case study above were not just leading change, but were receiving change and acting as change agents, which would appear to be a far more complicated process (Lukacs and Galliyo, 2014). Also, although the culture and resources were readily available in the case study above, the funding cuts and strong focus on measurement and accountability in FE discussed in Chapter One may work against a change-friendly culture in the College under study.

In conclusion, FE lecturers are expected to lead change on a regular basis, whether it is in their classroom or in adapting to curriculum development, school improvement, effectiveness or teacher development (Wideen and Pye, 1994). Whilst encouraging teachers to adopt BL technologies from the bottom up can provide academic purpose, personal and social development, promote equality of opportunity (Fullan, 2000) and foster trust between management and staff (Gold, 2003) there are contextual issues and personal influences which may frustrate change attempts.

In order to help overcome these issues, those involved in grassroots change are best working in conjunction with top-down leaders of change to provide overall organisational change (Kezar, 2012).

2.5 How can We Identify Successful BL Implementation?

Throughout this thesis I discuss “successful BL adoption”. However, one of my own dilemmas working in BL has been establishing ways to identify and measure the successful adoption of blended learning. Setting the goals or benchmarks of success, and measuring progress against these benchmarks, enables us not only to celebrate the wins gained through the implementation, in order to maintain the positive momentum of the change (Rogers, 1995) but it also helps us to identify gaps so that we can support those who may be falling behind in the implementation process (Foucault, 1977, p184).

Fullan (2013) emphasises the importance of keeping these goals simple and well communicated. Therefore, I would suggest that the key identifiers of successful BL are as follows:

1. Technology is blended into pedagogical practice in such a way that it creates learning experiences that are “irresistibly engaging” and personalized, encouraging deeper learning, creativity and passion for the subject ((Fullan, 2013, p. 75)
2. The teacher is actively involved in the learning activity, students take ownership of their learning experience, they have more choice than would be available in traditional pedagogical delivery, and have a clear understanding of the purpose of the lesson (Pierce, 2017).
3. From an organisational perspective, the implemented BL provides improved effectiveness and efficiencies, for example through improved student learning, time and cost savings.

Whilst these goals may appear clear, how they are to be measured should be clearly stated at the start of the project in order to provide a clear benchmark for success.

Traditionally, BL implementation success has been measured using the "golden triangle": whether it was delivered on time, within budget and is high quality (Westerveld, 2003). However, a BL implementation may achieve the "golden triangle" but may not meet the expectations of all stakeholders. Measuring stakeholder satisfaction in turn depends on how the change was intended to be implemented. Fullan and Steigelbauer (2000) outline two ways that change is effected: the fidelity approach, where the innovation is implemented just as the initiator intended; or the mutual adaptation approach, where it is expected that the innovation will be adapted by those who are responsible for implementing it as they use it. A clear vision of what the effective change should look like at the end of the change process would therefore hinge on which approach is taken. For example, precise measurement of outcomes based on completion of processes would be more appropriate for a fidelity approach than one where the processes may be adapted to suit the situation.

Whilst I have used the words "effective" and "successful" interchangeably, Luthans (1988) points out that effectiveness is not necessarily the same as success when it comes to measuring educational change. For example, during a recent discussion on leading change with the principal of the FE College under study, the principal commented that although the changes she implemented at her previous College were extremely successful, once she left they seemed to lose impetus and began to fail. This would appear to suggest that although they were initially successful, they were not effective in the long term. This follows similar findings by Mitchell and Tucker (1992, in Muijs et al, 2006, p90), who found that transformational leaders (i.e. those who drive change through their own interpersonal skills and communication of goals in a top-down manner (Dilts, 1996)) tended to provoke either conformity or passive resistance, where staff just wait for their leader to move on before reverting to their original ways. As discussed in section 2.3.1, in order for change to be judged successful and effective, it needs to involve permanent change of behaviour, so should be measured against benchmarks at each of three key change phases (unfreeze, change and refreeze) outlined by Lewin (1947).

I have established that the measurement of any kind of change is complicated, depending not only on meeting the expectations of stakeholders but also involving

long term adaptation of behaviours to help meet pre-specified institutional goals. However, when we add the concept of BL as the nature of the change to be measured, the complications increase: we must not only consider the effectiveness and success of the change process itself, in encouraging uptake of BL pedagogical practices by teachers, but also the effectiveness and success of the materials and BL process.

If the goal is to meet an external compliance, such as health and safety training, then the measure would be if the learners have completed the training. If the goal is to improve outcomes, then before and after training measurement of outcomes in the form of tests, manual tasks or self-assessment of learning gains (Hosack, Lim and Vogt, 2012) could be undertaken to indicate improvement. (There is a caveat to this: student grades can depend on many different factors, so there is not necessarily a teleological link between completion of BL and improved grades.) Kuhlmann (2011) also identifies a third goal, which is the sharing of information with no final expectation of performance improvement. In this situation he states there is no need to measure anything more than the number of people who have viewed the information.

Although BL outcome measurements are commonly used to assess success (Kuhlmann, ibid), there are other measures including assessments of structure, delivery, content and service (MacDonald and Thompson, 2005). More recently, researchers have viewed consistency of course design, student to student interaction, technical support, amount of content and the timeliness of interaction with both teachers and students on the course as vital (Young and Norgard, 2006).

As the concept and practice of BL matures, lines between measurement of BL and traditional teaching become blurred, with Jung and Kim (2006) suggesting that we should consider if the BL environment offers supportive, pedagogical, and environmental domains for all students involved. In the College involved in this study, there has been considerable work on BL quality measurement in terms of focus groups with students and teachers to measure both engagement and effectiveness, observations of BL use in the classroom and surveys to query BL effects on

grades. However, this has been a management-led initiative and it will be useful to discover how the findings have been passed on and acted upon by the teaching staff.

2.6 What are the Barriers and Drivers of BL Implementation?

As indicated throughout our review of existing literature, implementation of BL impacts student learning, teachers' pedagogical practice and the culture and structures of the College as a whole. Therefore, this section is split into three sections in order to review potential barriers and drivers to BL from the perspectives of organisational effectiveness, pedagogical practice and student engagement.

2.6.1 Organisational Structures

Organisational structures can make or break a BL implementation programme. An overarching culture supporting change, clear communication of purpose and process and implementation of the resources and training required for implementation are all important drivers from an organisational perspective (Medina, 2018; Fullan, 2013). Within the next few pages we will look at the political, financial and general performance standards that drive or hinder BL adoption within the College from an organisational perspective.

2.6.1.1 Political Influences

In section 2.4.1 we discussed the value of top-down change in providing clarity of purpose, and mentioned the government, international groups and employers as potential drivers of top-down implementation of BL in the College. Fullan (2013), for example, provides numerous excellent examples of how top-down, policy-led change has driven rapid and successful adoption of BL within schools in Canada, the USA and New Zealand.

There are many organisations that influence the top down implementation of BL within the College. From an international perspective, the UK Government works

closely with a range of groups who have communicated clear policy and goals in relation to BL adoption in FE. These include:

- the OECD, (OECD, 2010) which focuses on access to education, innovation in pedagogical practice and reduced costs through their own department, the Centre for Educational Research and Innovation (CERI);
- the European Commission "EPALE" group which promotes the use of BL to improve the experience of learners, and to develop the lifelong learning skills of adult learners (European Commission, 2009).
- UNESCO's UNEVOC group (UNESCO, 2018) specializes in technical and vocational training support and promotes the use of BL and digital technologies to improve knowledge sharing and social and economic development through education.

Although this is by no means an exhaustive list, it gives us some idea of the different drivers for each group, and how these may influence national education policy. It also suggests that in some instances there may be unclear, and conflicting, goals. For example, opening access to education to everyone may drive the use of BL because of the flexibility it offers. However, the additional resources required to support some students with special learning needs may create a cost barrier to developing resources for all students.

Clarity of purpose is further diminished by frequently changing national policy in relation to FE (Keep, 2016; Chowcat et al, 2014). This can be due to political restructuring and wider technological and economic factors. For example, in 2016 responsibility for FE moved from the British Department for Business, Innovation and Skills (BIS) to the Department for Education (DfE), creating a change of focus, from raising UK economic competitiveness by filling work skills deficits and preparing students for work (Great Britain Department for Business Innovation and Skills, 2016, Chowcat et al, 2014) to inclusivity, academic standards and international benchmarking (Great Britain Department for Education, 2019a). This has implications on the perceived benefits and drivers for BL adoption from the perspective of policy makers, and I discuss economic factors, inclusivity and academic standards individually below.

Economic factors, such as the effect of Britain's exit from the European Union, and the impacts of automation and artificial intelligence in the workplace, add to uncertainty about the skills required in the current labour market, from both a national and regional perspective. This has an impact on FE: as regional markets change, the skills required of those in the regional workforce change. Sometimes these changes may be large and quick, such as when a large business moves into or out of the area. BL provides flexible, inclusive ways of retraining into new roles and this capability is frequently mentioned as a driver for BL adoption in government press releases (e.g. Great Britain, Department for Education, 2019b; Hancock, 2014).

Also from an economic perspective, BL is seen by many as providing opportunities to encourage NEETs (young people not involved in education or employment) back into education (Powell, 2018). Education is mandatory in the UK until the age of 19, but the number of NEETs accounts for around 11% of the entire UK population of 16 to 24-year olds (ONS, 2019). FE is seen as a "second chance provider", or, as Otty (2017) describes it, the "social mobility emergency service", supporting NEETs and other disadvantaged groups into education and careers. Incorporating BL into the College curriculum may not only support a staged entry back into classroom-based learning for NEETs, but also provide opportunities for those who are geographically remote from the College premises or who have other commitments such as carers or those with young families. Research also indicates that the flexibility of BL makes it an attractive option for those with learning difficulties, mental illness and medical disabilities (Kent et al, 2018).

Under the United Nations Convention on Disability Rights and the Equality Act 2010, FE institutions have a legal duty to adjust to cater for disabled students, such as providing BL tools to support learning (Great Britain, Department for Education, 2019c). This goal is particularly relevant in the FE sector, which is inclusive and non-selective, and therefore often experiences far more diverse classes than those of schools or universities (Huddleston and Unwin, 2013), with relatively high numbers of students with disabilities or special learning needs.

BL offers the opportunity to tailor learning programmes to meet the needs of these learners, providing specialist support software, enabling them to work at their own

level and speed, and providing learning in “bite-sized chunks” (Armstrong and Sadler-Smith, 2008). However, the balance between individual, technology-based learning and teacher interaction needs to be carefully designed to ensure that teachers are aware of any issues the learners are facing in terms of learning needs, or other commitments (Kent et al, 2018).

The use of BL to support special learning needs is well established within the College in the case study. FE teachers receive training on how to use technology to support special learning needs as part of their teaching qualification, and there is a huge knowledge base in existence on the use of BL tools to support those with special learning needs. For example, a Google Scholar search for papers published since 2018 on “technology to support dyslexia” provided over 4,500 results.

2.6.1.2 Academic Standards

There is considerable variation in the quality of teaching and learning within FE (Greatbatch and Tate, 2018), with quality generally assessed through student attainment figures and Ofsted and Ofqual observations and assessments.

Policy makers promote BL as a means of driving up academic standards and improving student outcomes (Great Britain, Department for Education, 2019b) by offering better standardisation of content, materials and training across different locations (Callan et al, 2015). Although exam boards used by FE providers have been slow to recognise the benefits of using BL to standardise provision and assessment, many now offer online resources to support teachers and students, discussion boards to compare notes on delivery and online assessments.

Whilst some may see this as a step in the right direction, Au (2011) expressed concern that this standardisation can disempower and deskill teachers, leading to many teachers teaching only to the tests. This in turn leads to narrowing of curriculum rather than a more flexible, rounded education, which is detrimental to students in the long term.

Government publications have more recently expressed caution, suggesting that new technology does not automatically lead to improved academic standards (Great

Britain, Department for Education, 2019b). Instead, they emphasize that academic standards are driven by a properly designed curriculum with clear learning and teaching goals, and BL is just one way to support that curriculum.

2.6.1.3 Financial Requirements

The UK Skills Funding Agency allocate funding to FE institutions based on measures of student retention, attendance and attainment. However, as discussed in Chapter One, the marketisation of education over the past thirty years has led to increased competition for a dwindling number of students, making it difficult for FE institutions to recruit and retain students. BL is seen by many within the College as an opportunity to improve the marketability of the College, for example by showcasing online course activities at recruitment days and offering flexible learning opportunities.

Once students are recruited, research suggests they are more likely to attend and enjoy their classes when they are actively involved in learning facilitated by BL programmes (Stockwell et al, 2015). This suggests that use of BL in the curriculum potentially helps the College meet attendance, retention and attainment funding targets (Deschacht and Goeman, 2015; Stockwell et al, 2015; Finlayson et al, 2006). However, Reynolds et al (2003) suggest that this is "optimistic rhetoric" indicating there is little evidence to support the idea that BL leads to better learning outcomes for students and highlighting the difficulties in identifying causality and measuring BL effectiveness. Whilst critical assessment of causality is important, most recent papers reviewed as part of this study suggested there was a close relationship between improved student engagement and the use of technology-based learning, particularly when a BL approach was used.

Helping to meet funding targets is one example of the ways that eLearning can support the College's financial viability. Another is through cutting costs. For example, eLearning can be used to supplement teaching hours and reach wide groups of students simultaneously without the need for dedicated classroom space. A good example of this is a recent project by the City of Bath College, which identified the huge cost benefits which could be gained through sharing development and use of

online eLearning resources (Sibley, 2003). This is reinforced by Kong's (2019) research, which identifies not only the cost savings of a collaborative approach but also the opportunities to develop inter-institutional communication and channelling of ideas.

McGill et al (2014) are less optimistic about cost savings, suggesting most initiatives will require considerable initial outlay, co-ordination and ongoing expense. Conroy (2015) also cautions that FE managers may fail to realise that developing high quality BL material is complex, time-consuming and expensive. Consequently, it should not be left to individual tutors to develop. However, often tutors are responsible for creating their own resources (ibid), and successful embedding of BL in this situation relies on allocating time for training on the new technologies and providing resources to develop them (King and Boyatt, 2015).

In response to this issue, some FE Colleges have separate BL teams to develop materials (Conroy, 2015; Guthrie, Griffiths and Maron, 2008). This may create conflicts between what is required of the resources from a classroom perspective and what the BL resources may achieve from the developer's perspective (Marshall, 2012). However, in Colleges where this approach is successful, potential issues have been reduced using BL champions and strategies to encourage collaboration between developers, teachers, different curriculum areas and managers (King and Boyatt, 2015).

2.6.1.4 A Change-Ready Culture

Levacic and Glatter (1997) suggest that the College's formal contractual structures and the propensity of the organisational culture to foster adoption of change can drive the adoption of BL within the College.

This notion of organisational culture becomes complex within the FE environment, as the institutional culture is made up of a conglomeration of separate, departmental cultures, and the structure consists of both formal, reported structures and informal structures. Curriculum areas often identify with the culture of their vocation or subject, (Gleeson et al, 2015; Jephcote and Salisbury, 2009), creating a complex and fragmented professional base upon which to implement blended learning. The culture of the department may also be strongly influenced by the personality of the manager

(Govindji and Linley, 2008), suggesting that if the manager does not see the need for BL, this may create a barrier for its adoption within the department.

This fragmented culture is exacerbated by high staff turnover and the fractional nature of FE teaching staff. Almost two thirds of who teach in FE are on part-time contracts (ETF, 2014) and staff turnover is 18%: 3% higher than the national average (Gleeson et al, 2015). Under the Part-time Workers (Prevention of Less Favourable Treatment) Regulations 2000, part-time employees are not required to attend meetings or training on days they would not be working, making it difficult to include them in goal-setting exercises or schedule training related to BL implementation.

Although our discussion so far suggests that the organisational culture might work against change, the nature of FE suggests there is a natural propensity to adapt to change within the College. For example, most FE teachers have already had to undertake a huge change in their own professional identity as they adapt from their role as a vocational expert to a teaching professional (Chappell, 1999). Also, in the case of FE managers with the College, most have progressed from vocational expert to teacher, then into a management role (Milton, 2018) so they are also very familiar with professional change.

2.6.1.5 Management Capability

A report commissioned by the British Association of Colleges into reasons why BL initiatives fail (Hills and Overton, 2010) suggested that over one third of the reasons for project failure related to poor management. Some of the most common management-focused reasons for failure were as follows:

- BL is implemented because it is a "good thing to do" rather than because it fits the organisation's goals and targets;
- no formal sponsorship or encouragement from top management;
- no internal marketing of the project, including a lack of recognition of early adopters or enthusiasts who may become grass-roots champions of the implementation;
- poor ICT competency and understanding of BL capabilities within the management team.

The importance of FE Governor and senior management team training in educational technologies leadership is specified as part of the Association of Colleges Code of Good Governance (AoC, 2015) and there are many examples in the literature of College leaders who have driven successful eLearning implementations (e.g. Sibley, 2013). However, Hills and Overton (ibid) suggest that success rates for eLearning implementations are poor and FE management teams can do more to drive successful adoption of eLearning.

2.6.1.6 Communication Structures

Almost all of the BL implementation studies I reviewed as part of this study indicated that a clear understanding of the institutional drivers for implementing BL, combined with an understanding of how this implementation would affect their own practice, were important drivers for BL adoption. For example, Lawson and Price (2003) identify the importance of leaders creating a "story of change" for all stakeholders, explaining why it is vital that people changed, outlining the individual's role within the change story, then providing a clear vision of what a successful ending will look like.

To facilitate this process, a clear and reliable communication flow both top down and bottom up is important. However, Doppler and Lauterburg (2013) suggest that communication is often diluted between organisational layers, resulting in top level managers being unsure of concerns and motivations of their subordinates, and subordinates not understanding what managers are doing or why they are doing it. They suggest that managers at all levels need to be able to communicate across all levels to check that messages are being passed correctly through the chain of command.

2.6.2 Pedagogical Practice

In this section we look at the various aspects of pedagogical practice affected by a BL implementation and discuss how they may be drivers or barriers for adoption of BL practices.

2.6.2.1 Perceived Risk

Recent studies on BL implementation in educational institutions (e.g. Abusalim et al, 2020; Dassa and Vaughan, 2018; Fullan, 2013) suggest that successful implementation hinges on ensuring that teachers follow student-centred pedagogical practice. This will involve a substantial change for teachers who traditionally regarded themselves as gatekeepers of knowledge. They will be required to become more collaborative, encouraging students to work with them to find the best technologies to suit learning requirements.

Some teachers who are natural innovators will adapt easily (Zhu, 2015). However, the adoption of BL may be seen as a particularly risky journey by others, necessitating the learning of new skills, exposure of their own lack of skills to their peers and managers and changes to delivery methods they may have used for years. To engage in the change process, teachers must perceive the risk as worthwhile in relation to longer term benefits to both the staff and students.

Zhu (ibid) discusses the importance of structured leadership and good relationships with co-workers to create a safe and supportive environment to reduce the perceived risk. However, studies suggest that the recent instability of FE policy, with extensive and frequently-changing initiatives, has increased levels of uncertainty for FE employees, creating an aversion to risk-taking, increasing the scrutiny of management intentions by staff, and reducing the levels of trust between managers and other employees (see Mather and Seifert, 2014; Lambert, 2011; Wright and Nigel, 2011; Lawson and Sorenson, 2010).

This low level of trust between leaders and followers could create a barrier for implementing change (Stoloski, 2014).

There is a suggestion that not only does such rapid policy change create a lack of trust, but it also makes it difficult for principals and senior managers to communicate the clear, shared vision necessary for a flexible change culture (Auernhammer and Hall, 2014; Singh and Hardaker, 2014). This can have severe repercussions for staff, with a recent study by Kinman and Wray (2014) finding that the way change was managed and communicated was the reported cause of the biggest increase in stress in FE teachers in England over the past two years. Furthermore, an earlier study by McLean (2005) suggested that unless there was a clear shared vision, teaching staff would be hesitant in adopting BL regardless of their level of personal interest.

2.6.2.2 Time and Effort

A recent survey of FE lecturers found that the heavy workload had led 85% of respondents to consider leaving the profession (Jones, 2015). Therefore, the perceived time and effort required by lecturers to implement BL is a key consideration.

One of the most commonly cited barriers to BL adoption is the perceived time required by teachers to learn, develop and deliver BL courses, along with the need to train students on how to use the technology (Singh and Hardaker, 2014; Yap et al, 2015; Anderson, 2012). However, Anderson (2012) found that this was perceived as a barrier only by those who were less experienced in the use of technology in the classroom. Those who were more experienced regarded the time and effort saved through the use of online resources in a BL approach as a key driver for adoption of blended learning.

Fee (2009) and Lonn and Teasley (2009) also suggest that workload and waste reduction are significant factors for encouraging the adoption of blended learning, citing benefits especially where learning content changes frequently (requiring large scale change to resources, which are more easily done and distributed online) and where similar content is to be delivered to large groups of people.

The opportunities that BL offers for better organisation of resources, preparation before attending classes and management of assessment submissions appear to

provide clear benefits in terms of both reduction of administration time outside of the classroom for teachers and more effective use of class time for discussion and analysis (Lonn and Teasley, 2009).

Although there are clear time and effort savings to be made, it is important that the teacher is allowed sufficient time to learn the tools and adapt their teaching practice to suit (Abusalim et al, 2020; Lawson and Price, 2003). When the process is rushed and staff do not have enough time to reflect and assimilate, BL adoption can appear forced and ineffective. Examples are provided by both Argyris (1976), and Parks et al (2016) where teachers believe they are delivering what is required (espoused theory) but what they are delivering falls short of expectations. Argyris (ibid) commented that the person may be unaware that there is a difference between the two, and that it takes feedback, reflection and practice to change behaviour and embed new ideas into individuals' norms and beliefs.

2.6.2.3 Readiness: Resources and Support

Recent research suggests that there is a social desirability in identifying as someone who uses BL in their classes (Parks et al, 2016). However, teachers may feel they are not ready to take on the new ways of working required from a BL approach, and that formal professional development opportunities and ongoing support to facilitate their application of BL practices do not meet their needs (ibid). Suggestions for ways that would better support teachers included observations of BL in action in similar contexts to their own, ongoing personalised support and professional development that was collaborative and modelled appropriate pedagogical practice for BL in the classroom (ibid).

Although some studies on barriers to BL implementation cite a lack of resources as an issue (e.g. Porter & Graham, 2015), much has been done by the UK government to set up BL resource support for FE Colleges, with agencies such as JISC and the ETF providing advice, guidance and, in some instances, group purchasing for hardware and software tools.

This support is very visible in the college in this study, where a major capital grant and recent rebuilding programme has been implemented. Most students have access to tablets in their classes when required or have access to dedicated computer rooms. All staff have computers and access to interactive whiteboards in their classes, along with a Virtual Learning Environment (Moodle), personalised for each course, and up to date versions of Microsoft Office and subject-specific software.

However, whilst the resources appear plentiful, Henderson et al (2017) urge caution, suggesting that teachers must take care to use resources that students will actually use to enhance their learning, rather than those that "might" benefit students. In many cases this may involve an experimental approach, where different options are tried until the resources are found that fit the requirements of both the teacher and the students.

Finding the right mix can be difficult, and Fullan (2013) provides many examples of expensive resource allocation mistakes on both local and national levels. However, through my own observations at the College, I have noticed BL innovators tend to make excellent use of pre-existing, free, open access educational resources, such as Quizlet, Prezi and Kahoot. My observations align with those in a study by de los Arcos et al (2016), who found that teachers who used BL were more likely to use and adapt open access educational resources to personalise learning for their students than those who favoured traditional methods. They went on to suggest that more needs to be done to support teachers in their awareness of these free resource banks, and how to incorporate these resources into their teaching practice.

2.6.2.4 Perceived Relevance

In terms of assessing the relevance of BL implementation, Bliuc et at (2012) found that the teachers tend to fall into two camps: those who focus on the student-centred improvements to be found through the implementation of a BL approach, such as tailored learning to improved student engagement and communication (e.g. OECD, 2010; Kanuka and Rourke, 2008; Finlayson et al, 2006); and those that focus on teacher-centred benefits, such as a reduction in workload and the reuse of resources.

Bliuc et al (ibid) suggested that those who were more focused on student-centred improvements tended to be more reflective and better able to support students in ways that would help them cope in a complex work environment. Whilst this provides a simplistic view of the teachers' perceived relevance of blended learning, Holt's doctoral thesis (2019) into FE teachers' perceptions of their roles in relation to educational technologies found there were a complex mesh of issues affecting her participants' attitudes and beliefs towards the adoption of eLearning. Perceived relevance can be affected by the teacher's level of skills and confidence in the use of technology in general (e.g. Dassa and Vaughan, 2018; Mwakyusa and Mwalyagile, 2016), perceptions of risk and perceptions of others' use of eLearning. For example, those who are already confident users of technology in their personal life may already see its benefits and be keen to adopt BL to carry those benefits over into their work life. Those who are less confident may be fearful of the risks involved, and their lack of confidence and skills would be a barrier to adoption. As discussed earlier, this fear may be exacerbated by a perceived or actual lack of training, support and resources to help them upskill.

Where teachers were able to collaborate and discuss issues with colleagues and were able to see how the application of BL could be relevant to their own classes, they were more likely to amend their beliefs and adopt BL practices (Scott, 2016). Context-specific training and opportunities to try out and evolve their teaching practices were also seen as excellent ways to improve confidence and reduce perceived risk by those adopting BL practices (ibid).

In summary, peer collaboration, management sponsorship and promotion of BL development are vital drivers for pedagogical change to support BL adoption.

2.6.3 Student Impacts

As indicated above, where BL is shown to have positive impacts on student learning, this can be a key driver to adoption of BL practices for both teachers and managers.

2.6.3.1 Inclusion

As we discussed in section 2.6.1, policy makers consider the opportunities for BL to improve learning opportunities for the underprivileged as a driver for BL adoption. However, there is conflict in existing research as to whether such benefits exist. For example, whilst BL may in some contexts reduce barriers to education access based on gender, social class and location (Muhammad Din and Jabeen, 2014), recent research by van de Oudeweetering and Agirdag (2018) found that most who took up online courses tended to be more privileged. Barriers to completing BL which were specific to those who were less privileged included access to ICT equipment, pre-requisite knowledge of how to use the equipment and software, underpinning subject knowledge and literacy skills, and costs.

2.6.3.2 Engagement

Evidence suggests that FE students who have BL incorporated into their curriculum have improved self-esteem, motivation to learn and autonomy (Beetham and Sharpe, 2013; Finlayson et al, 2006). However, Rothwell et al (2010) counter that those with poor motivation for learning struggle to take up BL activities. This is an important consideration in the College. Many of the courses on offer have low entry requirements, providing opportunities for those who have underachieved at school and may have had negative experiences of education in the past, affecting their motivation to learn.

One way to help overcome this issue is to develop a learning community both online and in face to face classes to help support and encourage those who find it difficult to engage with their learning (Nortvig et al, 2018). It is also important for the teacher to take on the role of a facilitator of learning, to track those who are not contributing or engaging in online or face to face classes and encourage participation. However, this is a complex issue and although Beetham and Sharpe (ibid) have undertaken research

into student motivators and blended learning, there is a need for more FE-specific research into the impact of student motivation as a driver for BL adoption, particularly in relation to NEETs and those with special learning needs or mental health issues.

At the other end of the spectrum, BL can engage more capable learners by offering "stretch and challenge" exercises and resources both within and outside of the classroom. Whilst Ofsted (2009) recommends providing just enough technology-based resources to reinforce work through home study and help learners gain a deeper understanding of the topic, a study by Cornelius and Gordon (2008) suggested this must be carefully monitored, as some learners won't engage with the material and others may want to get through the programme with a minimum of effort. In these instances, collaborative, social learning with a mixture of abilities working together was proven to help encourage motivation and learning (ibid).

2.6.3.3 Achievement

There are many studies which cite BL as having improved student outcomes (e.g. Nguyen, 2017; Green and Whitburn, 2016). However, as mentioned above, this achievement is strongly tied into the motivation of the student and their ability to interact with the materials. It is also connected to the context and design of the BL. For example, in situations where the teacher is involved in the online parts of the learning, where interaction between teachers and students is designed into the learning, and where the online components fit carefully with the face to face classes, achievement tends to be improved when comparing BL with traditional face to face classes (Nortvig, et al., 2018). Where these conditions are not met, students tend to struggle with more complex tasks, and can feel isolated, and studies have found that achievement levels may be lower than those in traditional face-to-face delivered classes (ibid).

FE classes tend to encompass a wide range of abilities, with learners coming into the study programmes through different routes and with different qualifications, and it can sometimes be difficult for teachers to ensure that everyone in the class is engaged and working at a pace that suits them. For those who are less capable, BL offers opportunities to work at their own pace and complete learning tasks outside of the classroom. It reduces information overload, as students can choose to absorb

information in their own way, at their own pace (Anderson and McCormick, 2005). This is especially useful for students who struggle with English, as they may need more time to read and translate instructions and key concepts (Tan, 2015).

Studies suggest there are clear opportunities to improve student engagement and achievement by matching pedagogical practice with the way students learn (Demian and Morrice, 2012; McNutt and Brennan, 2005). For example, many students use information technology in their personal lives, and expect technology-based learning within their classes (JISC, 2015; Moule et al, 2011), thus providing a bottom-up driver for the adoption of blended learning. However, whilst students may be familiar with using mobile phones and computers to find information and communicate with others socially, they might struggle with converting these skills into an educational environment and may need extra support in to upskill in this area (Moule et al, 2011).

2.6.3.4 Preparation for Work and Lifelong Learning

For those who are using FE classes as a stepping stone into work, BL can create a competitive advantage. A recent report suggested that more than half of over 16-year-olds cannot demonstrate core employability skills such as leadership and creativity (Griggs et al, 2018), yet well-designed BL can facilitate development of many of the core skills required by employers, including general soft skills such as critical analysis, time management, leadership and the building of formal relationships, to more specific skills such as familiarity with software used in the work environment (Radha et al, 2019; Chatarajupalli et al, 2010; Cheung et al, 2017).

Digital technologies also allow learners to experience “real world” scenarios in a more immersive and engaging manner than would be available through traditional classroom-based learning, encouraging both learners and teachers to become more actively and emotionally involved in their subject (Fleming, 2013). It offers them opportunities to connect with subject matter experts from around the globe to extend their knowledge and, in many cases, to build informal communities of practice to share advice that they may continue to participate in long after the formal learning programme has completed.

2.6.3.5 Communication and Social Skills

FE College culture has its roots firmly based in notions of equality and shared learning, with communication between teachers and students forming an important part of the process (Duckworth and Smith, 2018). Research suggests that well designed BL can facilitate communication and interaction between teachers and learners (Valk et al, 2010), and that this is a driver for the adoption of BL approaches (Garrison, 2003). Mobile devices and social media, for example, may be incorporated into the curriculum to create opportunities for students and teachers to interact not only within the boundaries of the College but also with those in the wider community, such as employers and community groups.

Furthermore, a recent study by Cooke (2016) found that students connected with peers and instructors throughout their BL engagement, using the BL communication facilities not only for study-related information, but also to build relationships within the group. A similar effect was found by Yap et al (2015), who found that BL encouraged the shyer students to communicate more than they would normally in a face to face classroom environment.

Whilst this may be a driver for adopting BL as part of the curriculum, the ability to promote communication is contingent on design. For example, some suggest that heavily-individualised BL can lead to a feeling of isolation for learners, especially in asynchronous courses (Nedeva et al, 2010). In such situations, BL may be perceived as a barrier by those who want to improve communication channels within their course.

2.7 Summary

The aim of Chapter Two was to complete a critical review of existing literature relating to whole-institution adoption of BL as part of pedagogical practice. I began by defining BL before looking at the different approaches which may be used to implement it.

Rogers' (1995) Diffusion of Innovation model provides a useful theoretical base for implementing BL, whether it is policy led (following a top-down approach), or led by those on the "front line" of teaching (using a bottom-up approach). The model describes the various actors involved in the process, and the key factors which may affect implementation, and we will be referring to this model throughout this thesis.

Finally, I reviewed the various perspectives on benchmarking and measuring successful and effective implementation BL before discussing the various barriers and drivers to BL implementation in terms of organisational structures, pedagogical practice and student impacts.

Where possible, I related the discussion back to the context of the FE College in this study. I also identified potential gaps in the literature, especially in terms of research into FE institutions in the United Kingdom.

The next chapter will cover the methodology and tools used to discover the drivers and barriers to adoption of BL within the College from three levels: policy makers, managers and teachers.

3Research Methodology

3.1 Overview

This chapter describes the research approach taken to discover the drivers and barriers to adoption of BL within the College from three levels: policy makers, managers and teachers.

The approach used was an inductive single-site case study, guided by grounded theory. This chapter begins with a detailed discussion of my position as an insider researcher before moving onto a critical reflection on the reasons for choosing this methodology, and the assumptions and associated limitations. I then outline the methodology in detail. Examples of the data collection tools are held in Appendix Two.

3.2 Evolution of the Research Questions

Gray (2012) discusses the conflict in creating research questions at the beginning of projects which use a grounded theory approach, and the approach's inherent inductive nature which, by definition, works from the data to develop generalizations and theories. I therefore decided to use an iterative approach to develop my research questions.

At the beginning of this research, I had an idea, based on my own experience and a review of existing literature, that conflicts in the perceived impacts of BL amongst different levels of stakeholder within the College may affect the implementation of BL across the College. This formed the basis of my Ethics Approval process but required some clarification.

Using grounded theory as a guide enabled me to gain focus and depth on the research questions as the data was analysed, bringing me eventually to the final set of research aims and questions outlined previously in Section 1.4. This is discussed in detail at the beginning of the Results chapter.

3.3 Insider Research

One of the core principles of the Economic and Social Research Council (ESRC) is that "the independence and impartiality of researchers must be clear, and any conflicts of interest or partiality must be explicit" (ESRC, 2012, p25). It is therefore important that I clarify my own position within the College as both researcher and manager.

I was a teacher in the College for seven years and became the eLearning Manager a year before I started the research. This put me in the position of being an "insider researcher", with an intimate knowledge of the research situation (West et al, 2013; Adriansen and Madsen, 2009). Whilst this may appear to conflict with the independent and impartial aspects of the ESRC, there were both advantages and disadvantages in relation to this position, and these are discussed below.

3.3.1 Objectivity

Gains (2011) points out that the objectivity of the insider researcher should not problematize researcher bias, but rather embrace it as an intrinsic part of the data analysis process. She suggests that if I was open about how I have collected, analysed and reported my data, it should not affect the credibility of my account.

Therefore, throughout this thesis I have acknowledged that my own interpretation of the participants' responses and documentation analysis was personal and objective, based on my own experience and definitions. Where possible, I attempted to include reference to my own assumptions or prior interactions with the participants and documentation, and any related discussions undertaken immediately before or after the interviews were included as part of the transcripts.

3.3.2 Free Will, Trust and Risk

Although this study assumes voluntarism (i.e. that participants acted with free will), the literature suggests that insider research can create issues with free will and trust (Cohen et al, 2009; Gains, 2011). As an insider researcher, I had to consider issues that may affect this assumption, including the perceived risk to participants of divulging personal information, the fear of being identified, concern about being

critical of the College in front of a member of the management team, and a fear of criticism or loss of face (Cohen et al, 2009, p123).

To build trust and reduce perceived risk, I predominantly used documentation that was in the public domain for the documentation review, with any private documentation vetted by the Principal or Vice Principal. Interview participants were guaranteed anonymity and given the opportunity to inspect and modify interview transcripts before they were used in the data analysis process. Fear of criticism was particularly an issue with those who were "laggards", and in these interviews I often found myself reassuring participants that I would not judge them by their answers, and that any questions they had arising from the interview could be discussed in a separate meeting.

3.3.3 Power

Karnieli-Miller et al (2009) discuss the potential benefits to be gained from using a qualitative approach in terms of power redistribution between the researcher and the participants, and a focus on marginalized understandings and experiences. However, they indicate that in practice this is not so straightforward, with the researcher-participant relationship power balance changing based on personality, social background, type of research and perceptions of the role of those involved in the interview.

Although my role as an insider researcher with some positional power had some benefits, including the fact that I already had formal working relationships with all the interview participants and had established considerable interpersonal trust with each of them, there were also some disadvantages. For example, the interview participants understood my role as "cheerleader" for BL within the College, and some were reluctant to discuss their negative experiences and attitudes towards BL with me.

Careful consideration was given to ameliorating these issues. For example, to allow participants some time to prepare, and to withdraw if desired, they were sent a detailed consent form outlining the purpose and nature of the research and were invited to contact me for further information if required. Interviews took place in a location chosen by the participant to ensure they felt ownership and comfort in their surroundings (Herzog, 2012), and were conducted in an informal manner. Some

participants required reassurance within the interview that there was no judgment being made in relation to their responses. Where this occurred, it was included in the interview transcript.

In some instances, participants wanted to discuss BL outside the scope of the interview. I suggested we spend some time after the interview discussing any issues, and in some instances, I booked a later meeting with them. For transparency, these suggestions are included in the transcripts, but transcripts of the later discussions are not included as they are not relevant to the study.

3.3.4 Lived Familiarity

West et al (2013, p62) suggest that an insider researcher has "an intimate knowledge that provides a lived familiarity with the participants being studied". This creates a tension between the need to detach themselves from the preconceptions that come with this knowledge, with the potential for interpretation bias, and the benefits that can be gained from the existing relationships with participants in terms of trust and openness.

Whilst I had good working relationships with all those participating in the research, my position and relationships may have impacted the results (Adriansen and Madsen, 2009). For example, there was potential for respondents to reply with answers they thought I wanted to hear, or they may not have told me additional information they feared I may use to encourage them to use BL in their classes. However, those same relationships also gave me opportunities to identify differences between their "normal" and "performed" selves which helped with identifying when they may not have been replying true to their normal behaviour. This was particularly the case with those who were not frequent users of blended learning.

In many interviews I found that my familiarity with the College culture and close knowledge of the context helped participants talk more freely than they may have done with an outsider. There was a reduced need for rapport-building, and many instances where a shared understanding of an issue meant that more time could be spent delving deeper into the individual's perceptions of that issue than would have

been possible if the researcher had no prior knowledge of the issue context and the individual's position within that context. However, Adriansen and Madden (2009) caution that the assumption of mutual understanding can be a negative aspect of insider research for two reasons. Firstly, the participant may assume an understanding that does not exist; and secondly responses where understanding is shared between the interviewer and participant may not make sense to an external audience.

Where possible, I tried to clarify points of mutual understanding through feedback to the participant and requests for clarification or elaboration where I was unsure. These are included in the transcriptions.

Lived familiarity in Adriansen and Madden's (2009) research also appeared to cause issues with power struggles within the interviews, with participants attempting to drive the interview to suit their own needs. I did not encounter this issue, perhaps because I already had good working relationships with the participants, and was using a semi-structured interviewing approach.

3.3.5 Access

Access to information is an important aspect of being an insider researcher, and this was particularly relevant to my own experience. For most of the research process, I was an insider researcher, but for the final two years of the process I left to work elsewhere and had no contact with the College at all, thus becoming an "outsider". There were two interviews left to complete when I left the College and it took me almost three months to arrange them. When I was working within the College, all my interviews were arranged and completed within three months as I had easy access to the participants.

Another issue pertaining to insider researcher information access is the influence that prior knowledge can have on selection of documentation to be used in the research, and the participants for the research. To reduce perceived bias, I used documents that were predominantly in the public domain and have included a full list in the Appendix to allow readers to review the documents for themselves. The only exception was the Technology and Innovation Committee minutes. These minutes were chosen as they specifically related to the research question and were available to only a select group within the College. All minutes were recorded by a secretary within the College and

notes were made for each in the analysis as to potential for any bias in the recording or analysis of these documents.

The interview participant selection was more open to bias, as I wanted to select those who demonstrated extreme ends of the spectrum: i.e. those who were confident and frequent BL users (early adopters) and those who rarely used BL at all (laggards). To help avoid my own insider knowledge influencing selection, I relied on managers to identify those within their own teams who fit the "early adopter" and "laggard" categories of Rogers (1995) Diffusion of Innovation model, described earlier in section 2.3.2.

In summary, although there were some potential disadvantages in being an insider researcher through the majority of the data collection, such as potential issues with objectivity and issues with power, these were outweighed by the advantages, including easy access to data, and a knowledge of the context of those involved which enhanced rapport and allowed me to make more informed decisions than if I were an external researcher.

3.4 Philosophical Underpinnings of this Study

Within this study there is an ontological assumption of relativism: that reality is a changing product of individual cognition. I aimed to describe how each person understood BL and its position in everyday teaching practice in the College. This led to an epistemological assumption of constructivism: that knowledge is personal, subjective and a compilation of our experiences and interactions with others.

I wanted to understand not only how individuals perceive their own adoption of BL but also how others perceive it, and how individuals perceive others' influence as either inhibiting or promoting the adoption of BL within the College. Through this I hoped to gain what Gains (2011, p157) refers to as a "thick description of the sense-making of participants" to help understand the underlying practices, rules and meanings experienced by each participant.

In order to do this, I decided to take a qualitative approach. Qualitative research is used to explore people's interpretations of issues, often involving an inductive

approach where the information emerges from the research (Cresswell, 2009). In contrast, quantitative research is generally used to test existing theories by examining the relationship between variables (ibid). Cohen et al (2009) suggests that qualitative methods can produce a deeper understanding of how people think and feel than can be achieved through quantitative methods.

3.5 Methodological Approach

The nature of the research questions indicated that I should use a case study. Yin (2009) and Cohen et al (2009) recommend a case study should be used in the following situations:

- When the research questions are exploratory in nature, and you want to capture in-depth, detailed data from a wide, complex data source.
- Where you cannot control the events within the study, but instead want to portray the uniqueness, complexity and situatedness of the individuals within their current context.
- When it is difficult to distinguish between the phenomenon under study and its context.

After considering my research questions, I decided to take an exploratory/revelatory case study approach, using grounded theory as a guide.

3.5.1 Scope

Case studies may include single or multiple-case designs. I decided on a single case design to focus on the differences within the College, rather than differences between Colleges. This was partly due to time and resource constraints (I was a single researcher working part time with no funding) but also due to the extremely complex nature of the phenomenon I was attempting to study within the College.

This study was geographically bound to the three campuses of the College in question, with further documentation sought from the related Government departments and quality assurance agencies.

The interview participants consisted of teachers and managers from within the three campuses.

The time frame was restricted by the time allocated for me to complete this thesis. To provide some breadth of background around the timescales of the interviews, I selected documentation from January 2014 to December 2018, and interviews were all completed in 2017.

3.5.2 Data Sources

Yin (2009, p18) defines the case study as a research method that investigates a phenomenon in depth and within its real-life context and suggests it is particularly useful in complex situations where the boundaries between the context and the phenomenon are blurred. He then goes on to suggest that because the boundaries are not clear, there may be more variables of interest than data points. This means the data collection methods must be able to cope with multiple sources of evidence, and data from these different sources should be triangulated to form conclusions.

I had already decided that to gain the required depth of data I would need to complete interviews in some form. However, following guidance from King and Boyatt (2015), I chose to also complete a document analysis, in order to widen the context of this study in terms of the time frame, allowing for some triangulation of data and to enable the reader to better assess the factors which affect the results.

3.5.3 Analysis

According to Bryman (2012) there are two different types of approach I could have taken for the analysis of my qualitative data: analytic induction or grounded theory.

Analytic induction tests against an hypothesis, either confirming the hypothesis if there are no deviant cases or reformulating the hypothesis to take account of any deviant cases encountered during the analysis. As we did not begin with an hypothesis, but rather a need to generate ideas from a general question, analytic induction did not appear to be the correct approach.

Grounded theory is “theory that was derived from data, systematically gathered and analysed through the research process. In this method, data collection analysis and eventual theory stand in close relationship to one another” (Strauss and Corbin, 1998, p12). When using a grounded theory approach, theory is developed out of the data and the approach is iterative.

This analytic approach appeared to suit the nature of my research question, as I expected the findings to emerge through a number of passes of the research analysis. However, my research did not precisely follow a grounded theory approach (Bryman, 2012), but instead used elements of the grounded theory method. Based on Birks and Mills’ (2011, p91) diagram illustrating the conceptual ordering of grounded theory methods, my analysis process is shown below.

As suggested within the grounded theory approach, my data analysis was an iterative process that involved three stages:

Figure 2: Data Analysis Process

- **Thematic Analysis** – which involved coding the interview transcripts and documents in nVivo to gain familiarisation to the point where I was able to start identifying patterns in the data.
- **Axial Coding** – where I searched for relationships between the codes and began to identify potential themes within the data.
- **Selective coding** – during this phase I used the themes evolved during the axial coding, comparing against the existing theory, to identify potential gaps. Once this was completed, I also undertook comparative analysis, which involved running a series of cross-tabular queries to test source attributes against their categories. For example, was a particular response more common amongst managers than teachers? I concluded by creating a “story” for each theme, underpinned with examples from both theory and raw data, which was then

reported in the Findings chapter. This also allowed me to "sharpen" my research questions, which evolved into their final form throughout the process.

Each stage was completed more than once and not always in the order shown above. For example, early in the analysis I went straight from thematic analysis to selective coding before returning to the thematic analysis stage.

Table 6 on page 206 in Appendix Two provides an example, with data, of how I completed the above process. There is also a detailed explanation of the steps taken during both the document and interview analysis below.

3.6 Document Analysis Methodology

This section describes the rationale behind choosing a document analysis before outlining the data collection methods and analysis process.

3.6.1 Rationale Behind Choosing Document Analysis

Greener advocates that "documentary analysis can provide a great deal of valuable material on the context of the research site, but more than this, illuminate the data collected by other methods by helping to provide more detail about what is going on" (Greener, 2011, p78). In this study, document analysis allowed me to gain a deeper understanding of the context, including time-situated issues such as funding changes and government policy that may not have been possible through interviews alone.

From a more practical perspective, O'Connor (2019) highlights the value of document analysis where time and resources are limited, and I decided to include documentary analysis to gain insight into areas such as government departments and quality assurance agencies that would otherwise not be possible given time, resource and access constraints. Furthermore, it allowed me to complete a large section of my research with very little impact on others.

Considerable thought was required on deciding the right approach when incorporating document analysis into this research, including consideration of the type of data to collect, the availability of the documents and the type of analysis to undertake on the documents. (O'Connor, 2019). It was also important to set the boundaries and search criteria for the documents to avoid scope creep (Baxter & Jack, 2008).

Based on availability and scope, I decided to collect the following:

- all College documents available to college employees that related to BL policy and process within the chosen date range of January 2014 to December 2018;
- publicly available government agency documents published within the chosen date range that referred to BL implementation within the College;
- publicly available government policy documents published on the government website within the chosen date range that related to the use of information technology in learning in UK further education colleges.

Within these documents I looked for core themes as they related to implementing BL in FE Colleges in the UK. Following the overall methodological approach of the case study, I was guided by grounded theory for both sampling and analysing the data. There is a detailed explanation of my data collection and analysis process below.

3.6.2 Document Sample

Glaser and Strauss (1967) suggest that probability sampling, where a process is used to ensure that different units of the population have equal chances of being chosen, is not an appropriate method to use in qualitative research as it relies too heavily on statistical rather than theoretical criteria. Instead, they recommend a process called "theoretical sampling". Theoretical sampling "is the process of data collection for generating theory whereby the analyst jointly collects, codes, and analyses his data and decides what data to collect next and where to find them, in order to develop his theory as it emerges. The process of data collection is controlled by the emerging theory, whether substantive or formal" (Glaser and Strauss, 1967 p45).

Considering it is the recommended approach for an inductive study such as this, I decided to be guided by theoretical sampling processes.

A total of 54 documents were included in the sample. Almost all the documents sampled were primary sources of data, such as transcripts of speeches, minutes of meetings and formal reports. Although the documents analysed are listed in detail in Appendix Two, the key documents were as follows:

- Government policy documents relating to blended learning

- Ofsted and QAA Reports
- Board of Governors' Minutes
- Technology and Innovation Group Minutes

The initial sample of approximately 30 documents was established based on recommendations from three members of the College's senior management team and a curriculum manager. I then used knowledge gained during the analysis of these documents to help identify further documents which would be of use. This included working systematically through the Department of Business and Skills' online sources, and later those of the Department of Education, to identify any documents relevant to "online learning", "technology-based learning" or "blended learning".

According to Glaser and Strauss (1967) this process should continue until "theoretical saturation" is reached; i.e. no new data is emerging, the concept under study is well developed in terms of properties and dimensions, and relations between concepts are well established.

3.6.3 Analysis of the Documents

As discussed above, and illustrated in Figure 2, the document analysis followed an iterative process consisting of three steps: thematic analysis, axial coding and selective coding. These steps are discussed in detail below, and artefacts relating to the analysis are held in Appendix Two.

3.6.3.1 Preparing the Document Analysis in nVivo

Before I began my thematic analysis, I wanted to ensure that I could easily identify specific attributes of the data sources to help provide context if required. NVivo provides the facility to allocate "attributes" to each document source added. Attributes allow you to classify and later analyse your sources based on comparisons of demographics or other attributes you have assigned to the files. The documents had just one attribute associated with them for classification. This was the *Document Source* attribute, which identified whether the document came from the College Management team, a Quality Agency (i.e. QAA or Ofsted), another government agency

or a direct government policy document (i.e. directly from a government department such as the Department for Education).

The documents were loaded and coded in a separate nVivo project to the interviews, then merged with the interview nVivo results for axial analysis. The separate set up initially was in anticipation of the need for a different analytical approach for documents and interviews but in hindsight both could have easily been incorporated into the same nVivo project, with the *Sources* facility used to distinguish between them.

Examples of the coding applied to the document sources are shown in Appendix Two in Table 6 (on page 206).

3.6.3.2 Assessing Document Source Reliability and Validity

The initial sample of approximately 30 documents was reviewed using the structure shown in Table 5: Template for Document Familiarisation (on page 215) to help me gain some familiarisation with their content before I began a more detailed thematic coding process. It enabled me to identify which documents held relevant information. Where a document did not hold any reference to BL or eLearning implementation, it was discarded, and a new document was selected in its place.

As the documents within the analysis were written for different purposes, had authors from a variety of backgrounds and were aimed at different audiences, I followed Cohen et al's (2009) recommendation to review the context of the documents as part of the analysis in order to assess their reliability and validity. All the documents reviewed were formal documents that had been circulated either within the College (e.g. the minutes of the Technology and Innovation Group) or published to the public. All documents in the analysis had clear provenance, as they were accessed from their source (for example, the minutes were accessed from the College intranet, and the government documents were downloaded directly from the public government website). Therefore, there was an assumption made that these documents were authentic and credible.

However, what was often less clear within the documents was the reliability of the documents. Incompleteness, inaccuracy and author bias would affect the reliability of

the document as part of the analysis (Gray, 2012; Cohen et al, 2009). Based on advice from Silverman (2010), for each document source I included a short analysis of the potential for unreliable data. This included assessing the abilities of the writer to accurately record content, any potential external influences which may affect the content and the time taken after the event to complete the document. I also tried to establish any other issues which might affect reliability and validity, such as the nature of the intended audience and the purpose of the document. A summary of this analysis was added to the thematic analysis template for the document, which was then added to the nVivo files.

3.6.3.3 Thematic Analysis

Thematic Analysis is the initial phase of data analysis when using a grounded theory approach. Strauss and Corbin (1990, p61) describe this as "the process of breaking down, examining, comparing, conceptualizing and categorizing data".

As I was working through the documents to determine their reliability and validity, I kept a Word document with a list of two or three-word concepts relating to barriers and drivers for BL found in the documents and updated the list as new concepts were uncovered. This was then used to develop an initial codebook before I began the coding in nVivo.

Once the codebook was created, I began the first round of the thematic analysis. As I identified a point made regarding BL within the document, I highlighted the concept then checked against the existing codes in the codebook to see if the concept had already been coded. If it had, I selected the code to associate the text identified in the document with the existing code. If it was new, I created a new code to identify the concept and associated the text in the document with the new code. An example of this process is shown below.

Table 1: Thematic Analysis of Document Sources

Codes	Examples
Scope and Quality of Provisioning	BIS 2016 p12 – Area Reviews – plan must include : A plan to embrace the possibilities provided by technology which can increase the quality and scope of provision.
Time and Cost	BIS 2016 Area Review: An approach to innovation in delivery that is focused on the costs and benefits of blending learning in ways that can continually reflect and adapt to changing

	local needs and use intra and inter institutional collaboration to reduce the costs of innovation.
Collaboration between Organisations/Community	Govt response to Feltag - BIS (2014 p4) The Education and Training Foundation's learning technologies support programme (see the Capacity and Capability of FE and Skills Providers section for further information) will create networks and communities of practice to share resources and innovations in the effective use of learning technologies. This will involve training providers, employers, Local Enterprise Partnerships, schools, Higher Education institutions and other educational entities.
Student Inclusion	NIACE 2016 Online Learning Report p5 There is very clear evidence of demand for online (non-attendance) modes of learning from learners who would not, or could not attend traditional courses, covering all of those groups who might be excluded by family responsibilities, time pressures including work commitments, geographical location and social and cultural barriers. There is no evidence of the scale of latent demand. If it were to be significant it might support an argument for ring-fenced funding of appropriate online programmes.

I completed this process for the first 30 documents identified as part of the sample before proceeding to the axial coding stage.

3.6.3.4 Axial Coding

Axial coding involves consolidating the many different concepts identified as part of the thematic analysis into themes or core categories (Cohen et al, 2009).

I reviewed the codes I had identified as part of the first pass. I was able to consolidate the 23 different codes identified into 16 codes. These codes appeared to divide naturally into three groups, which closely aligned with the those identified within the literature review in relation to barriers and drivers of BL adoption covered in section 2.6. These were: student-focused barriers and drivers, teacher-focused barriers and drivers (which mapped to the pedagogical theme in the literature review) and organisation-focused barriers and drivers.

To facilitate further coding, I decided to rename the remaining 16 codes, using an identifying letter and number to group them and to help me find them more easily. The codes were renamed with those relating to students beginning with an "S", those relating to teachers beginning with a "T" and those relating to impacts on the college

as a whole beginning with "O". For example, the first student code I added was *Student Engagement*, which was allocated the code *S1*, and the first teacher-themed code was *Teacher Confidence,* which was allocated the code *T1* in the codebook.

I was working on the interview analysis concurrently, and at this point I reviewed both the interview data and the document analysis to look for potential themes arising from the codes I had worked with already. From this I ascertained that there were three key themes pertaining to barriers and drivers of BL adoption. These were: blended learning's impact on the effectiveness and efficiency of the College; collaborative practice as a driver or barrier to BL adoption; and engagement and inclusion. I began working on a table to group the codes into the themes, with key quotes provide depth to the "story" of the theme. This table is held in Appendix Two, but an excerpt showing the final themes is shown below.

Table 2: Codes Grouped into Themes

Themes	Codes
College Effectiveness and Efficiency	O1 – Scope and Quality of Provisioning
	O2 – Measurement and Reporting
	O4 – Funding and Policy
	O5 – Time and Cost
	O7 - Leadership
	S2 – Student Achievement
	S5 – Time and Cost to students
	T3 – Teacher Time
	T5 – Teacher Resources
	T6 – Teacher Organisation
Collaboration	O3 – Collaboration between Organisations/Community
	S4 – Student Communication
	T2 – Teacher Collaboration
Student Engagement and Inclusion	S1 – Student Engagement
	S3 – Flexibility of Learning
	S6 – Student Inclusion
	O6 – Duty of Inclusion
Teacher Engagement and Inclusion	T1 – Teacher Confidence
	T4 – Teacher Engagement

I then sought further relevant documents, searching public domains such as the College website and the Government FE policy site for the key words: "blended learning", "e-Learning" and "technology-based learning". My searches were time

limited to between January 2014 to December 2018. For each new document source, if I found a new concept, this was reviewed, added to the codebook and coded into the source. This was considerably easier as I now had a basic structure to my codes, allowing me to find any existing codes quicker. I then went back through all the sources to double check I had not missed this concept in documents I had coded earlier.

According to grounded theory, I should have continued to add and analyse documents until "theoretical saturation" was reached. This occurs when new data gathered is no longer adding to the potential understanding of the phenomenon (Bryman, 2012). However, my document sample was bounded by the search criteria outlined above. When my internet searches using these criteria no longer came up with any further documents, I concluded my document analysis. I completed with a total of 54 documents, 19 codes and 4 themes, as shown in Table 2 above.

3.6.3.5 Selective Coding

Selective coding involves developing the final story to support your grounded theory by identifying the relationships between the identified concepts, the central themes and existing literature to develop the grounded theory (Tie et al, 2019; Bryman, 2012). It also gave me an opportunity to review my data and assess if there were any gaps which may require further exploration.

I began this phase by running cross-tabular queries in NVivo to look for patterns across themes, codes and source attributes. These compared both the number of times codes featured within the documents, and the number of documents that featured the codes. An example of one of the queries, comparing the number of documents that featured each code separated by the *Document Source* attribute is shown below.

Figure 4: Query Results

Document	Document Source = College Management (33)	Document Source = Quality Agency (4)	Document Source = Government Agency (7)	Document Source = Government (11)	**Total (55)**
Organisation	0	0	0	0	0
O1 Scope and Quality of P...	3	0	2	3	8
O2 Measurement and Rep...	10	1	2	3	16
O3 Collaboration	3	0	2	6	11
O4 Funding and Policy	8	0	2	3	13
O5 Time and Cost	3	0	1	2	6
O6 Inclusion	2	0	3	3	8
O7 Leadership	12	0	3	2	17
Student	0	0	0	0	0
S1 Engagement	4	1	3	1	9
S2 Achievement	2	1	1	2	6
S3 Flexibility	2	0	0	3	5
S4 Communication	5	2	1	0	8
S5 Time and Cost	0	0	0	0	0
S6 Inclusion	2	0	3	4	9
Teacher	0	0	0	0	0
T1 Confidence	8	1	2	5	16
T2 Collaboration	6	1	0	4	11
T3 Time	3	0	1	1	5
T4 Engagement	2	0	0	0	2
T5 Resources	9	2	3	3	17
T6 Organisation	0	1	0	0	1

The query results for each were exported to Excel and merged with the interview analysis query results to provide an overall view of the codes from the perspective of the policy makers, College management and teachers. From this I was able to rank the codes in order of most discussed and compare these rankings from different perspectives to identify how they differed. This allowed me a preliminary view of the level of importance assigned to each code from the perspective of teachers, managers and policy makers, providing a starting point for the structure of the Findings chapter.

Beginning with the highest ranked codes in each theme, I then began working through each theme and its codes, comparing the analysis of the interviews and the document analysis against the existing literature to provide an in-depth description of the different drivers and barriers for adoption of blended learning, and how these barriers and drivers differed across organisational levels. This was initially developed as a storyline for each code. I then went through and added raw data from both the interviews and the document analysis to support the story, as advised in Tie et al (2019).

3.7 Semi-Structured Interviews

As discussed in section 3.5.2, I concluded that, based on the nature of the research questions and my own research assumptions, the best approach would be to collect data using a combination of document analysis and interviews. The document analysis would provide a contextual depth and triangulate, to some extent, the deeper understanding gained from interviews with key College employees.

3.7.1 Rationale Behind Choosing Semi-Structured Interviews

Before making my final decision, I assessed three different interactive data collection methods: focus groups, narratives and interviews. Each would allow me to complete the research with the resources I had available whilst still obtaining in-depth, appropriate data (Cohen et al, 2009).

I decided on individual-focused interviews, as they would provide a greater depth of information than could be provided by a focus group, (Crabtree et al in Morgan, 1993) yet take less of the respondents' time than a written narrative (Corbridge et al, 1994). I also wanted to make sure that the areas I covered in the research were clearly understood by the participants and I wanted to be able to probe emerging themes as they arose (Cohen et al, 2009), which I would not be able to do with a mass survey or questionnaire.

Cohen et al (2009) identify the benefits of all interviews, such as the opportunity for an interchange of ideas, emerging information that may not have been considered before the interview, and the ability to assess multi-sensory communication including non-verbal cues. Greener (2011) also points out that interviews can offer a voice to the overlooked, giving them an opportunity to express their views. Conversely, Greener and Cohen et al (ibid) discuss some commonly occurring problems with interviews, including the potential for incomplete or untrue answers provided by the participant, which may be impacted by social distance, power and trust relationships between the interviewer and the participant; potentially ambiguous questions or answers being incorrectly understood by the participant or researcher respectively; and the unnatural situation of the interview potentially causing participants to "clam up" and reveal less in the interview than was required.

Bearing these issues in mind, it appeared that the best approach would be semi-structured interviews. Bryman (2012) suggests this term refers to situations where the interviewer has a list of questions, but can reframe, reorder and add to them to suit the participant and the context. A semi-structured interview method helped me ensure that the data collected was complete whilst allowing the flexibility required to gather deeper information about the participant's beliefs and practices, and to explore any emerging themes throughout the interview.

Tomlinson (1989) discusses the benefits of using an approach called "hierarchical focusing" as a way to apply some structure within semi-structured interviews without losing the interviewer's ability to conduct the interview as a "natural participant", encouraging free flow in the interview conversation and allowing for reflection on meaning by both the interviewer and participant.

Hierarchical focusing involves the researcher developing a hierarchical agenda of questions that allows flow from open to closed framing, based on the researcher's initial constructions of the domain. The interview is then carried out as "open-endedly" as possible and recorded, with a verbatim transcript forming the data for analysis.

This approach fit with both the nature of the research questions and my own assumptions regarding the research, as discussed in previously in section 3.4. Further study suggested that a type of hierarchical focusing called laddering would be most appropriate for this thesis, and it was a laddered interview method that I selected.

3.7.1.1 The Laddered Interview Method and Means End Chain Theory

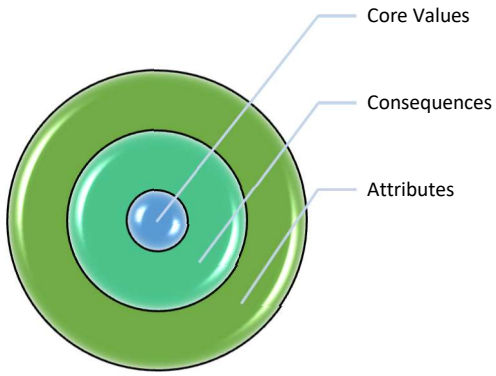
Laddering is a type of in-depth hierarchical interview technique which involves using a series of directed probes such as "Why is this important to you?" to obtain information about the individual's attitudes and values in relation to a topic (Reynolds and Gutman, 2001).

Although laddered interview questions were initially used by clinical psychologists in the 1960s to help them understand people's core beliefs and values, they have a strong following in the present day in the field of market research. Marketing practitioners use laddering to discover the links between customers' perceptions and

their purchasing behaviour, a model known as *Means End Chain Theory* (Hawley, 2009).

Means End Chain theory suggests there is a hierarchy, or ladder, of perceptions, as shown in Figure 5 below. If we relate Means End Chain theory back to BL adoption, we could consider these perceptions as follows:

Figure 5: Means End Chain Theory



Attributes of BL would be the most easily recognisable features of BL such as online learning and self-marking. These are typically "What" questions.

Consequences are the impacts that BL may have on the participant. For example, it might save them time or engage their students. These are typically "Why" questions.

Core Values are the underlying values of the participant, such as a belief that students should be actively engaged in the learning process. These may not always be clear to the participant but tend to play the biggest role in their choices.

Laddering begins with asking about attributes then builds to consequences with the aim of understanding core values.

There are some disadvantages to this approach which are outlined by both Corbridge et al (1994) and Sorenson and Askergaard (2007). For example, laddering assumes a spatial organisation of the topic which may not be shared by the respondent; it may also lock the respondent into one particular identity, and not allow them to fully develop their argument.

To try to overcome some of these issues, I decided before I began conducting the interviews to use the ladders as a memory aid within the interviews, rather than a formal interview structure. This allowed the interview participants to explore their arguments in their own way, with prompting from me only when they were faltering. This overcame the above issues to some extent whilst ensuring that there were no gaps in the information gathered.

Based on research by Corbridge et al (1994), I suggest that a hierarchical approach provided a greater width and depth of coverage of a topic than non-focused interviews and self-reporting would have done. Corbridge et al (ibid) also indicate that the time taken to analyze and code laddered interview responses is far less than for previously mentioned techniques. Therefore, the benefits of this approach appeared to outweigh the disadvantages for this project. I decided to adapt the hierarchical interview technique, using a combination of open-ended laddering questions and specific sub-topic related questions, to ensure I had the width of topics covered in the results but also allowed for development of new ideas and understandings through open-ended questions and a lightly structured delivery.

3.7.2 Design

I adapted Tomlinson's (1989, p162) procedure for creating a hierarchical interview, and discuss each step below.

After completion of my preliminary research and literature review, I developed a diagram to illustrate the content and hierarchical structure of the components within the research question as I understood it. This helped me reflect on my own impressions of the key issues and made them explicit.

I then identified which of the key issues outlined in the diagram I wished to draw from my respondents within their interviews. From this, I created a graphical hierarchical agenda of questions and issues as shown in Figure 8 in Appendix Two. This followed a laddering technique, beginning with questions about the attributes of BL such as "What is blended learning?" and "Which BL techniques do you use in the classroom?" then moving onto consequences (e.g. "What are the benefits of using blended learning?") to try to identify core beliefs and values.

This graphical structure was then taken into each interview and used as an aide to ensure that all questions were answered during the interview. A completed example of one of the Ladder Diagrams is shown in Figure 8 in Appendix Two.

3.7.3 Population

The interview population for this study was all teaching staff and their line managers, heads of school, the vice principals and the principal. This consisted of around 450 people, with approximately two thirds of these working full time at the college, and the remainder working part-time.

3.7.4 Sample

Although I had used theoretical sampling in the document analysis, I decided, based on suggestions from Edwards and Baker (2012), this would not be appropriate for the interview sampling, due to the potential volume of interviews which would be required to reach theoretical saturation, and the limited time and resources I had to complete the interviews.

With regard to sample size, Galvin (2015) suggests that researchers deciding on a qualitative sample need to determine that enough people are interviewed to represent the population, and that all issues are covered, to make the study credible for both the general public and a critical, academic audience.

Bearing this in mind, and considering my research question, I decided to formulate a purposive sample in such a way that it would represent members of each tier of the organisation, and the matrix of relationships between those who were the “Early Adopters” and “Laggards” identified in Rogers’ Diffusion of Innovation model (see section 2.3.2).

Whilst Gray (2012) suggests this approach may give a more accurate cross-section of the population, Cohen et al (2009, p115) say it is “deliberately and unashamedly selective and biased”. Bryman (2012) also comments on the lack of clarity of this type of sampling, indicating it is important to outline how the participants were selected, and how many of them were involved. To counteract some of these issues, I have outlined my process for selection in detail below.

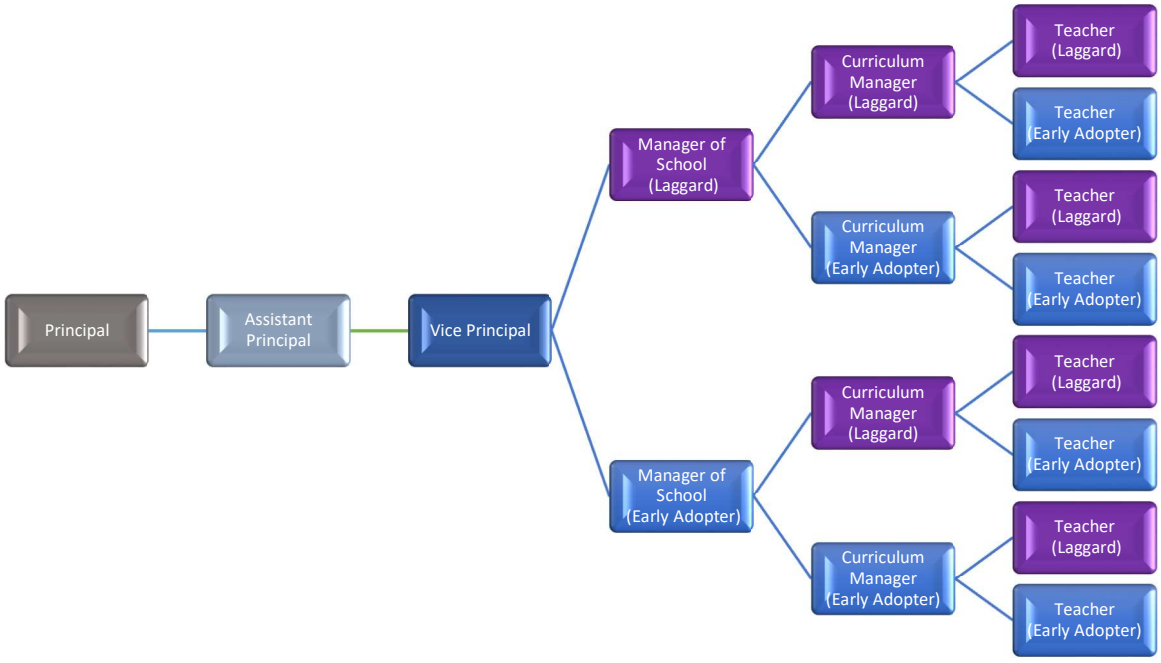
Initially I built the framework shown below for sample selection, then I relied on both my own knowledge of the individuals concerned and reports from their managers and peers, to determine which individuals would fit into the sample framework. This

included researcher involvement, and the personal views and biases of both me and the participants, as discussed in section 3.3. However, in this case having an insider knowledge, from having worked within the population for years, gave me the benefit of understanding where people were positioned within the sample framework. This is information that would not have been available to an outsider.

To demonstrate good coverage of the sample demographic, I recorded each participant's age, gender, years of experience and subject on a separate grid. Where there was more than one potential participant to fit the sample framework, I selected participants whose addition would cause the sample to most closely represent the demographics of the population (Cohen et al, 2009). The final grid is shown in Table 4: Demographics of Interviewees, which is in Appendix Two.

To maintain transparency, peer and manager referrals were included as part of the interview transcripts. The sample framework was as shown below in Figure 6 below.

Figure 6: Interview Sample Selection Framework



This gave me an overall sample size of 17. When I compared this sample size to similar semi-structured interview projects regarding BL in education (see King and Boyatt, 2015; Khan and Markauskaite, 2017), I found their sample sizes were similar, suggesting this sample would be acceptable to a researcher audience.

3.7.5 Collection of the Interview Data

Each participant was emailed a consent form to read and sign before the interview. This was scanned and saved into an encrypted, password-protected folder for future reference. The same email contained an outline of the purpose and methodology of the research, an explanation of how their data would be used and a reminder that they had access to their transcript and could choose to withdraw from the study at any time. An example of the information sent to participants is held in Appendix Three.

A copy of the laddering interview schedule was taken into the interviews and used as a checklist by the interviewer to ensure that all issues were covered. To add further depth, items where the participant was prompted were marked with a "P" by the researcher. You can see a completed example of this schedule in Appendix Two.

Every interview was audio recorded. Each marked up schedule was anonymized and scanned into the project folder on Google drive together with the associated interview sound recording. This drive was encrypted and protected with a password for security purposes.

A backup copy of the drive was also saved and stored on an encrypted external hard drive which was password protected.

At the end of each interview I allowed a 10-minute period to discuss anything that arose from the interview that the participant may wish to take further. Some of these discussions I have referred to in the Findings section, as there were themes which emerged in the subsequent discussions. It also gave me time to praise the participants on their contribution and to offer any support on issues which arose from the interview.

Each interview was transcribed within 48 hours of completion and a copy of the transcription emailed to the participant for validation within a week. Only three of those interviewed mailed back an approval of their transcription. The remainder were telephoned and gave verbal approval. All participants approved their transcriptions with no changes required.

Five participants requested follow-up meetings to discuss issues that had arisen as part of the interview process. Four of these meetings involved additional training to cover

a specific aspect of blended learning, and one involved a discussion of College policy with a member of the senior management team.

3.7.6 Analysis

After the initial false start in the interview analysis discussed below, analysis of the document sources and interview transcripts was performed concurrently, although they were separate projects in NVivo. The codebooks were updated in both projects at the same time during the thematic analysis to maintain consistency and allow for easier axial coding.

3.7.6.1 Uploading the Transcripts

I wanted to ensure that I could easily identify specific attributes of the data sources to help provide context if required. I therefore followed a similar process in uploading the interview transcripts as I had with the document sources, adding the *Organisation Level* attribute (Senior Manager, Middle Manager or Teacher) to help with cross-referencing themes to job roles, and the *Usage Level* attribute to identify whether each interviewee was a late adopter (or "Laggard") or early adopter of blended learning. This helped add depth to the discussion in the Findings and Discussion chapters later in this document and helped identify any potential relationships between managers and their teams in relation to early or late adoption of blended learning.

3.7.6.2 Thematic Analysis and a False Start

I spent a considerable amount of time at the beginning of the analysis process following the suggestion of Corbridge et al (1994) and using the laddered structure from the interview process for my code book. At the time I believed this would allow me to group interview responses together easily to allow for simpler comparison.

I approached this by developing a codebook in NVivo 12 using the laddering hierarchy developed for the semi-structured interviews for the code structure.

I then worked through the transcripts, coding wherever I identified reference to the laddering codes. Although this did help me gain some familiarity with the key

interview themes, once I had completed my first pass through the data analysis for both the interviews and the document analysis, I found I was struggling to identify key themes from which to write my findings "story". Also, because I had a fixed list of codes, I was losing focus on the inductive nature of the analysis. I decided to start again from the beginning, following a similar process to that I was undertaking as part of the document analysis.

By the time I made a fresh start on my interview analysis, I was already some way through my first round of axial analysis on my document analysis, so I had a codebook of grouped codes prepared within the document analysis. My initial pass of the interview transcripts discussed above suggested that there might be a lot of cross-over between the codes of the document analysis and the interviews. I therefore decided that, although the nVivo projects would be separate for the documents and the interviews, I would use the same codebook for both. Although this made the analysis more time consuming, as I had to maintain and iteratively analyse the same codes in both projects, it made the final, comparative stages of the analysis much easier than if I had used separate codebooks.

After I had imported the document analysis codebook into the nVivo interview analysis project, I worked through each of the 17 interview transcripts, As I identified a concept within the transcript, I highlighted the concept then checked against the existing codes in the codebook to see if the concept had already been coded. If it had, I selected the code to associate the text identified in the document with the existing code. If it was new, I created a new two- or three-word code to identify the concept and associated the text in the document with the new code. I then went back to the document analysis codebook and added it there too. Although you can view a more detailed version of the thematic coding in Appendix Two, an excerpt of the table is shown below, illustrating the codes applied to the interview transcripts. You can see the quote and a pseudonym for the participant was applied, alongside a code identifying the point as being organisation-focused ("O"), student-focused ("S") or teacher focused ("T").

Codes	Examples
O2 – Measurement and Reporting	ANDREW: Last year we measured it in lesson observations, although admittedly that only provides a brief snapshot. This year it is included in learning walks but again only in part of the theme, which came out of last year's assessments. Student surveys, lesson observations and student focus groups will give us some idea. We haven't done an audit of schemes of work to see where aspects of ILT is embedded.
S2 – Student Achievement	MARK: If someone is purporting that eLearning is having a positive impact we would expect to see improved retention, improved pass rates and improved achievement and also improved progression for students from one level to the next, so they are better prepared to make the transition from level 2 to level 3 for example. Or if it's their final year with us, they've got employability skills through the elearning experiences that enable them to get better jobs and sustain employment through those better jobs.
T3 – Teacher Time	JUNE: you want an honest answer? The problem is time. We can't afford to give everyone more money to do it, but what people really want is time to try it out. If you gave people regular remission or training days you would get more done. There is not enough time to plan your lessons as it is.

Once all the interviews were coded, I proceeded to the axial coding stage.

3.7.6.3 Axial Coding

The process for the axial coding of the interviews was the same as described in the document analysis (section 3.6.3.4), with the exception that as I was now maintaining the same codebook on two different projects, I had to complete the same process on both projects before merging the changes so the codebooks remained consistent.

nVivo made this a reasonably simple process: I had both the document analysis and interview Codebooks open at the same time, and worked through both sets of codes to identify potential themes. These are outlined in the Document Analysis section 3.6.3.4 and the thematic groupings of the codes, along with key quotes from the interviews and documents, is held in Appendix Two.

As stated earlier, in hindsight the document analysis and interview analysis could have been merged into one project earlier in the analysis to save time, but by the time I

identified this could be done I was a long way into the analysis, so decided it would be better to persevere with the existing process.

3.7.6.4 Selective Coding

I checked several of the codes and found that there was now a clear story to be seen within NVivo relating to interview participants' perceptions of the coded concepts as drivers or barriers to BL adoption. I was therefore confident that I was ready to begin selective coding.

I began the selective coding process by completing a comparative analysis across the interview codes and documents to identify the most commonly discussed codes within each theme. This followed the same process as the initial comparison queries outlined in the selective coding section of the document analysis: I ran one set of queries identifying the number of interview participants that discussed the code, and another set of queries identifying the number of times the code was mentioned within the interviews. The results of the queries were exported to Excel, then merged with the results of the document analysis initial queries, to provide an overarching ranking of the codes for each core theme. I used this information, in conjunction with the document analysis findings, to compare against the existing literature, to help identify any emerging theory as it related to existing literature. This helped me devise a storyline for each theme, which was then supported by both existing literature and quotes from the sources.

The remainder of the selective coding followed the process described in the document analysis section 3.6.3.5.

3.8 Overcoming Inherent Problems with Case Studies

There are some inherent theoretical challenges when using a case study methodology that need to be considered when designing the study. These are addressed individually below, along with an outline of how I adapted my design to help overcome these issues.

3.8.1 Reliability and Validity Revisited

Qualitative research is often criticised for its lack of reliability and validity. However, Lincoln and Guba (1994) suggest that we should instead assess research on its trustworthiness, transferability, dependability and authenticity.

Throughout this project I asked for validation from both participants and research experts (in the form of my supervisors) to ensure the data was credible. I provided detailed descriptions of context and thick descriptions in the results and discussion sections to allow others to make judgments about the transferability of my findings to other contexts. At every stage I kept detailed records of my processes, including any decisions made, templates used, all the transcripts and data analysis. These are all accessible on an encrypted cloud storage site and are password protected.

I checked with both similar studies and theoretical guidelines to ensure the amount and kind of evidence used is relevant in terms of plausibility (Hammersley, 1992). My coding categories were checked by my supervisors, to ensure I was following appropriate processes and setting an appropriate level of detail.

An external data analyst with no connection to the College was randomly allocated eight documents and three interviews to code to check for any hermeneutic issues with my own thematic and axial analysis of the documents.

She uncovered some minor differences between my own coding and hers:

- an emergent theme of BL to support teacher organisation, which was included under “Time” in my own review. We agreed that this should be moved to a separate teacher-based feature;

- A difference in opinion on whether student engagement should be regarded as an effectiveness concept or a student-based concept. After some discussion we agreed that it should be included as a student-based concept.
- A difference in opinion as to whether "Inclusion" should be regarded as student-focused or organisation-focused. In the end we decided to include it in both, with situations where is was discussed as a legal duty of the organisation to be coded under "Organisation" and those where it discussed students specifically to be coded under "Students".

Other than these two issues, she concluded my analysis was honest and reliable. We also agreed to merge "Time" and "Cost", which were separate concepts in both Student and Organisation themes, to become "Student: Time and Cost" and "Organisation: Time and Cost", as these were generally discussed together in the sources.

3.8.2 Generalisation

Although Cohen et al (2009, p254) discuss the potential for generalisation through case studies, Greener (2011, p138) quotes Flyvbjerg (2006) in suggesting that there is a general misunderstanding amongst many theorists that you cannot generalise from a single case. Instead, the belief is that case studies are most useful for generating hypothesis which may be later tested with a different methodology before being accepted into theory.

Cohen et al (ibid) provide specific ways that case studies can make theoretical statements, including generalisation from the single case to a group of cases with similar features. Meanwhile, Flyvbjerg argues that the detailed example provided by case studies can help underpin theory, and the power of a strong narrative, such as that provided by a case study, has greater potential to drive change and help our understanding of the world than statistical, generalised studies. Greener (ibid) recommends that it is important to identify the expectations regarding generalisation before the case study begins, to avoid appearing incoherent. Therefore, for clarity, the aim of this study is to look at a single case to illustrate the issues and add to general understanding, rather than to develop new theory which may be generalised across

other institutions. On the advice of Merriam (2009) I have included a detailed description of the context of this study to enable readers to make informed decisions about what can apply from this study's findings to their own context.

3.8.3 Replication

Merriam (2009) identifies the lack of control and formal design structure inherent in qualitative case study methodology as leading to issues with potential researcher bias and perceived reliability and validity. The inability to easily replicate the case study due to the situatedness of the study within its context exacerbates this issue.

However, Merriam (ibid) goes on to point out that those who are concerned with reliability and validity are missing the key point of the qualitative case study, which is to study the uniqueness of a phenomena within a specific context.

As discussed above, I have included a detailed context section in section 1.3 of this document. I have also provided copies of all the research instruments and detailed accounts of the sampling and analysis methods within this thesis to support others who wish to try a similar study. I have kept all my interview transcripts in a secure location which may be made available for review if required. For those who wish to compare my results to others, I have been unable to locate a similar cross-organisational study. However, there are some studies which follow a similar methodology, but focus on a single level within the organisation, such as Craig Anderson's PhD thesis, a qualitative case study on BL barriers and drivers for teachers in Australia (Anderson, 2012) which may prove useful as a comparative exercise.

3.9 Ethical Considerations

3.9.1 Fulfilling Ethics Requirements

Ethical considerations were an important aspect of my methodology. I was particularly concerned with the influence my role as an insider researcher would have on the data collection and analysis, and this is discussed in detail in section 3.3 above. I also wanted to make sure the process was as transparent as possible to the reader and the participants, and this is discussed below.

Once I had finalised my methodology, I submitted my research proposal to the University of Exeter Ethics Committee, who granted permission for my research on 3rd November 2016. A copy of my approval certificate is held in the Appendix One.

All participants were emailed details of the research as per the BERA guidelines (BERA, 2018) and were asked to sign a consent form before we began the interviews. All completed consent forms have been scanned into a folder in the project cloud storage area which is encrypted and password protected.

A more detailed description of the ethical considerations for this project and how they fit the BERA guidelines is contained in Appendix One.

The document sources and analysis method were included in my submission for ethical approval from the University of Exeter Ethics committee.

All the documents reviewed were in the public domain except for the Technology and Innovation group minutes.

In order to analyse these minutes, I gained email approval from the Principal and the Quality Manager of the College. Members of the Technology and Innovation Group were informed both by email and in a meeting of the purpose, content and procedures of analysis I would be using in relation to the documentation and were given the option to opt out of the final submission. One member of staff who had left the College but was included in the minutes was contacted separately by email. No members chose to opt out.

A detailed outline of how I adapted my research methodology to ensure it fitted with the ethical guidelines outlined by the British Educational Research Association (BERA, 2018) is held in the appendices. In summary, these were as follows:

- Formal consent was obtained from each participant and the right to withdraw explained.
- Transparency of data collection and analysis was maintained throughout.
- No incentives were provided to participants to encourage their participation.
- Potential for harm was identified and minimised.
- Additional support requirements arose because of the research and were dealt with by the researcher.
- Confidentiality and anonymity were maintained throughout: any information which could be used to identify individuals or the College was removed.
- Data protection was closely followed through encrypted and password-protected electronic storage and backups.
- A declaration of interest was made, stating my involvement within the College.
- I have outlined how I have fulfilled my responsibility to the stakeholders and research community along with responsibility for my own wellbeing.
- I have outlined how my research was published and disseminated.

3.9.2 Disclosure Regarding Sample Selection Criteria

There was a slight ethical dilemma associated with selection of respondents. Whilst it might have built early adopters' self-esteem to make them aware of their "label" in the selection process, I felt it might harm the self-esteem of those were identified as "laggards". Therefore, I did not inform any of the participants that I had selected them based on their personal use of BL in relation to others. As you will see from the results, however, all the participants identified themselves without prompting as being progressive or behind others in their use of BL and gave reasons for this. Cohen et al (2009) identify the importance of informed consent, where participants are fully aware of the implications of their participation before they agree to join. However, they also note that in many cases full disclosure may result in a loss of goodwill or affect the results, and I decided that omitting the labels from the participant information was justified in this regard.

4 Findings

4.1 Introduction

I began this research with the idea of trying to describe the differences in perspectives between policy makers, managers and teachers in relation to BL impacts, and how these differences affected implementation.

For the purposes of this thesis, "policy makers" are the Government departments and associated agencies responsible for setting and implementing education policy as it relates to English FE Colleges.

"Managers" include the College Governors, Principal, Vice Principals, Heads of School and Curriculum Managers.

"Teachers" are those whose role as a teacher does not involve any team management responsibilities. For example, most of the Curriculum Managers and Heads of Schools maintained teaching duties but were classified as Managers rather than Teachers.

Where I have identified differences in perceptions between these levels, I have clarified them and explained the potential impact these differences were stated to have on implementation.

The findings in this chapter are based on a review of policy maker documentation, College documentation and interviews with senior managers, curriculum managers and teachers described in the Methodology chapter. All interview participants have been allocated pseudonyms to protect their identity.

4.2 Evolution of the Research Questions

Gray (2012) suggests that the open-ended nature of a grounded theory approach makes setting the research questions at the beginning of the research project problematic. However, he also goes on to point out that participants must have some idea of what is being researched to make informed consent. Therefore, I began my research project by devising a general goal of this study, which was as follows:

> "To understand the attributes which facilitate or hinder consistent adoption of eLearning processes into pedagogical practice in an English FE institution and the approaches which may be taken to measure consistency of eLearning adoption."

After completing the first few interviews, it became clear to me that the term "eLearning" was too wide in scope, and most of the interview participants related specifically to a mix of eLearning and teacher-led classes known as blended learning (BL). I therefore changed the focus of the study to BL only.

Further into the data analysis I identified that the "attributes" of my initial aim could be more specifically defined as the perceived impacts that BL would have on the organisation, students and teachers. This evolved into not only the perceived impacts, but whether these were regarded as drivers or barriers to implementation.

Finally, the approaches taken to measure consistency were so strongly tied into the perceived impacts that it made sense to absorb them into that part of the research questions.

This left me with the following, final research questions:

1. What are the perceived impacts that BL adoption will have on the College?
2. Are the abovementioned impacts perceived as barriers or drivers to the adoption of BL in the College?
3. Do the perceptions regarding the impacts, barriers and drivers differ between policy makers, managers and teachers? – and, if so, what possible effects might this have on implementation?

This chapter aims to present the data from this study in relation to the above questions before continuing to discuss the implications in the Discussion chapter.

4.3 Themes and Codes

As discussed earlier in the Methodology chapter, I completed my analysis with a total of 19 codes, grouped according to whether they related to impacts on students, teachers or the entire organisation.

Axial coding consolidated these codes and identified them as fitting into four core themes: the perceived impacts of BL on College effectiveness and efficiency; collaborative practices as a driver or barrier to BL adoption; the perceived impacts of BL on student engagement and inclusion; and the perceived impacts of BL on teacher engagement and confidence.

Each of the themes is discussed in detail below, and examples of the grouping into themes, with key data quotes, is held in Appendix Two.

4.4 Theme One: The Impacts of BL on College Effectiveness and Efficiency

Theme One related to the perceived impacts of BL on college-wide effectiveness and efficiency. The six codes which formed this theme related to funding and policy, leadership, the scope and quality of provision within the College, measurement and reporting, time and cost, and resources.

4.4.1 Funding and Policy

The organisation-themed code of funding and policy was coded wherever a source discussed BL funding, the impacts of BL on funding, or policy. This could be both internal policy and Government policy.

Funding and policy in relation to BL was commonly discussed by management sources whereas only around a quarter of policy maker and teacher sources mentioned it.

The policy maker sources analysed tended to align with the concept of BL as an element of an holistic improvement process identified in Fullan's "Stratosphere" (Fullan, 2013). These sources suggested that BL should not just have its own policy, but be embedded into all major policies so that it can drive institutional priorities

including internationalism, development of new markets, employer engagement and vocational relevance. They stated that:

> "Joining up policy to practice is perhaps the most significant way of ensuring that technology is routinely considered as one way of making a sustainable difference". (JISC, August 2015)

Examples of this policy-into-practice approach included procurement processes, curriculum design, review processes and assessment methods. In contrast, managers appeared to be moving into a more segregated approach, with a decision made in January 2016 to extract the BL strategy from the overall IT strategy to clarify policy direction. This was duly completed, but had not been reviewed by the Policy team or communicated to employees and students.

This poor communication of the College BL strategy meant that managers and teachers were vaguely aware of government led schemes and policies driving BL adoption, such as the possibility that there would be a mandated 10% eLearning requirement (FELTAG, 2014), but were not confident that there was a cohesive top-down policy being implemented within the College. For example, Jack (an early adopter of BL) suggested the government policy was:

> "To try to adapt it into what you do whenever you can. I don't know if there is a particular requirement for it here, but I know there is a trend towards requiring a particular percentage of delivery to be via distance learning or eLearning - is it 15 - 20%. I know that is everywhere, but I don't know what the rule is here."

As discussed in the literature review, this lack of clarity appeared to be exacerbated by frequently changing government initiatives. Whilst it appeared that policy makers were in agreement regarding the need for implementing BL policy on national, regional and organisational levels, sources suggested there was frequent conflict about how these should be applied. For example, the European Commission (September, 2013) recommended the use of investment funds and improved regulation to encourage innovative use of technology in learning, whereas BIS (2015a) and NIACE (2016) were wary of using formal policy to drive BL adoption, particularly in terms of tying BL adoption to funding, and setting mandatory targets. This was partly because of the

difficulty in defining the targets, and partly because of the concern that setting mandatory targets would result in BL being applied in situations where it was not appropriate, for the sake of meeting a statutory requirement. Interview participants also suggested the setting of mandatory targets would be against the spirit of BL to improve the learning of the students. It was interesting to note that this was most commonly commented on by those who were regarded as early adopters of blended learning. For example, Terri, a teacher who made excellent use of BL in her classes, stated:

> "Sometimes in observations if we feel it is not appropriate to use IT then we won't … I think that ticking the boxes in observations is not the right approach – it's got to be appropriate for the nature of that session.
>
> When it comes to in-house observations it may be pulled up. But recently …I had an Ofsted inspector come into my class. I wasn't using any eLearning at all and I know they're not meant to be graded but I was given a high grade. That was in an Ofsted session – they were more concerned about what the students were doing in the lesson and whether they were stretched and challenged and whether they had progressed from one goal to another goal."

This was echoed by other managers and teachers, who suggested it was important to apply BL only in situations where it facilitated student learning, and therefore were unsure about the wisdom of setting mandatory BL targets.

Recent policy maker sources acknowledged this issue and had moved towards supporting rather than mandating the use of technology in teaching. For example, JISC and the ETF both provide BL resources, training and support to management teams and individual teachers where required. Exam boards had also begun to support BL, with curricular assistance including technology-based resources and online exams.

However, there was a perception amongst some of those interviewed that not enough was being done "on the ground" by policy makers to support BL implementation. This included examples provided in the interviews of situations where those who were supposed to be offering support and guidance to teaching teams were not sufficiently confident in the technologies themselves. For example, Marie commented:

> "So the exam boards aren't helping because they're not keeping up. We had real trouble with our BTEC moderator. Our whole BTEC Media group does everything online, we had Google Classroom, everything was online and they were leading the way in many ways. When we sent our sample to the examiner he wouldn't look at it. He said he wanted it all hard copy, which is madness."

As a final point regarding policy, management sources expressed concern about legal compliance in relation to the use of BL. This included reference to the Data Protection Act and Copyright Designs and Patents Act, and Jisc's recommended Bring Your Own Device policy. Although all managers and teachers had received e-Safety training, so were able to explain aspects of keeping safe online, it was expressed that more training and clarity on the wider legal implications of incorporating technology into learning would be beneficial at all levels within the College.

4.4.2 Leadership

The "Leadership" organisation-themed topic was coded wherever leadership was mentioned in relation to BL implementation.

It is perhaps unsurprising that managers were the most concerned with the effects of leadership on BL implementation, with just over half all management sources including reference to it. However, it received less focus in policy maker and teacher sources, with only around a quarter of each discussing the impact of leadership on implementation.

Within the literature review we discussed the importance of leadership in providing direction and clarity of BL adoption across the College (Bathmaker, 2015; Lingfield, 2012). However, policy maker sources expressed concern at the lack of experience and vision to design and implement strong BL strategies within both College governors and senior management teams within FE institutions and recommended time be allocated within these teams to train and embed BL within corporate strategy. This included identification of where BL would be most valuable, training of staff to develop and implement BL and keeping up to date with new technologies. To this end, the ETF

was developing BL leadership modules for management teams and teachers, although this was not mandatory.

Government agencies such as JISC were also developing management support resources including advisory agents to support implementation of infrastructure to support BL and help with managing technology budgets. The Association of Colleges Code of Good Governance (AOC, 2015) included BL as part of its specification, suggesting:

> "The board should be aware of new initiatives in teaching and learning, including blended and/or virtual learning and, through careful appraisal, consider their adoption."

Although implementation of BL across the College is specified in the College's Strategic Plan (Corporation Committee, July 2015), management sources indicated there was confusion about government policy, and a lack of commitment, specific leadership skills and technical knowledge within the management team required to implement BL across the College. For example, Fay (a member of the senior management team) stated:

> "Key people within the college - managers, advanced practitioners - it's got to be driven by them - they've got to be committed. And if they neither have the skills, knowledge or commitment themselves that makes it quite tricky I suppose. So if you look at our advanced practitioners team, the commitment and skills - many of them are quite poor and that reflects their age."

Further exploration of the levels of commitment from managers suggested there was a desire to commit to BL implementation, but managers appeared to be overburdened trying to keep up with frequently changing policy decisions and implementation tasks, and were forced to prioritize those which would have the most impact on funding for the College. For example, Jan stated:

> "I get about 400 emails a day. I get about 20 a week which are policy and many of them come out from the AoC on a Friday afternoon. I try to keep Friday afternoons free so I can go through them and I read them on Sunday afternoon. To be honest with you, I won't be reading about eLearning because I will be reading about the funding cuts, or I will be reading about Managers, or about

> Ofsted. I don't have detailed knowledge of policy, I have outlines in my head, because there are hundreds of policies"

This confusion about policy extended to the curriculum managers and teachers, with many expressing change fatigue in relation to the policy regarding technology in the classroom. For example, Anna stated:

> "At the moment, BL use is reflected in the grades we get for our quality reviews. But that depends on the way the wind is blowing. I'm sure that next time around someone will come back to us and say you're doing too much eLearning, what's happened to chalky talky?"

Part of the issue was trying to navigate the best way to meet Government policy whilst providing the best learning environment for students. Most managers identified the numerous time pressures that teachers were under and suggested the top-down leadership of BL adoption would encourage teachers to allocate time to learning and adopting BL practices. For example, some managers suggested mandating training sessions for those who were laggards in terms of BL practice, with repercussions for those who did not attend. However, managers struggled to prioritize the leadership of this process within their teams, due to pressures to complete other tasks such as managing staff cover and completing compliance reports.

In departments where BL was successfully used across the team, the department managers encouraged sharing of best practice in weekly team meetings, with a standard item on the agenda for a member of the team to run through a technology they were using in their classes and the impact it had on the teacher and students.

4.4.3 Scope and Quality of Provision

"Scope and Quality of Provision" was coded in the sources wherever BL was mentioned in relation to the range of learning opportunities on offer or the quality of these opportunities from an organisational perspective.

This code was the least mentioned of all the organisation-focused codes: no teachers at all mentioned scope or quality of provisioning, and only 3 managers and 5 policy maker sources discussed it.

Management sources within the College identified that their target demographic was in decline, with no increase expected until 2019. 14% of 16 – 18-year olds in the local area attended the College, and half of young people remained at school for 16 – 18 provision. A liaison strategy with the College's top ten feeder schools was in development and included group visits to encourage school students to take up College places. However, more was required to keep the College sustainable.

To this end, policy maker sources discussed options such as attracting mature part time distance and online students, and opportunities for recruitment of students from outside of the UK (JISC, 2015), referencing massive online open courses (MOOCs) and vocational online open courses (VOOCs), such as the short VOOCs offered by Virtual College (see https://www.virtual-College.co.uk/). Both options not only reach students who may not be able to physically attend College every day, but they also allow Colleges to deliver subjects when they may not necessarily have the appropriate subject matter experts available for classroom-based learning.

Management sources suggested that scope of provision could also be expanded through better links with both local businesses and those wider afield through collaborative associations using technology-based learning. They suggested this would improve competitiveness by giving an obvious vocational connection between the College and potential employers. Policy makers suggested these links, and those with other academic institutions, could also feed into curriculum structure, ensuring that FE Colleges are delivering courses that are of good quality and that properly prepare learners for their chosen next step. Examples were provided (e.g. JISC, 2015) of businesses, Universities and Colleges working together to build online resources, and to ensure that students were using industry-standard software and processes to achieve their qualifications.

Within the College, management sources were able to give examples of how BL had facilitated links with Universities (e.g. through the use of NILE, the Northampton University's VLE) and businesses to improve curriculum structure and ensure students were learning skills that fit the local employment market. For example, interview participants from the Performing Arts department discussed forging links with the local theatre and ensuring that students used software which would replicate studio environments. However, some teachers and managers were wary of poorly

implemented collaborative efforts, such as Kloodle, which was designed to link potential employers with students in the College and showcase student skills. For example, Fay stated:

> "I observed a lesson yesterday and I observed a teacher using Kloodle. I would have said that that was a very poor use of eLearning because I couldn't see in any way how it aided the rate of progress or the depth of learning of the students - so impact is critical."

4.4.4 Measurement and Reporting of Efficiency

"Measurement and Reporting of Efficiency" was coded wherever a source mentioned the impact that BL would have on the measurement of student progress, and the reporting of organisational efficiency.

This was the only organisation-themed topic where proportionally more teachers commented than policy maker or management sources.

All the teachers interviewed commented on this topic, half of the management sources and a third of the policy maker sources.

The focus on measurement and efficiency at the time of the data collection may have been due to the context at the time. The Government was in the process of implementing a Post-16 National Review, designed to "enable a transition towards fewer, larger, more resilient and efficient providers" (Great Britain, Department for Business Innovation and Skills, July 2015). One of the measures of efficiency during this review was the use of technology to measure and improve efficiency. The College were also working through an Ofsted inspection year, so most teachers and managers were very conscious of being able to demonstrate measurable improvements in their teaching practices and the learning of their students.

In Section 2.5 of the literature review we discussed the difficulties of assessing successful implementation of blended learning, and this was also identified within the Policy maker sources. Although JISC had produced a benchmarking tool to allow Colleges to assess their use of technology and provide advice on how to improve (JISC, August 2015), there was no indication within the management sources that this tool

had been used within the College. Instead, as discussed in section 2.5 of the literature review, much of the focus was on monitoring compliance and improved outcomes through grade tracking, attendance monitoring and individualised learner records, with the implication that attendance and achievement data could then be aggregated to provide class, teacher, department, school and institutional effectiveness measures. It was felt this could help identify any teaching and learning issues before they became a problem and allow managers to be better informed on a departmental and College-wide basis. At the time of the interviews, tracking systems were very localised. Some teachers, for example, used a paper-based grade book to store grades, whilst others used online tracking grids facilitated by in-class BL measures including online quizzes and games which stored results and provided feedback to the student and to the teacher on overall class performance. More recently, a College-wide grade tracking system has been installed and is now being used successfully across the College.

There was a specific question about measurement in the interviews with teachers and managers, and almost all interview participants were able to cite ways that use of BL was measured within the College. Most were able to give examples, including internal observations and learning walks, external observations by Ofsted and QAA, student satisfaction surveys and focus groups, the annual staff IT survey, curriculum audits and VLE quality control, including the allocation of gold, silver and bronze medals to Moodle course pages depending on the quality of content and usage.

However, rather than these being a driver for BL adoption, many of the interviewees expressed dissatisfaction with current measures. Teachers felt that observations were an artificial measure of BL use, as they consisted of a snapshot of teaching from a much larger curriculum. They were also concerned that in some instances they felt forced to include BL tools in the observed lesson to “check a box”, whereas there was no real benefit to including BL at the time. This contrasted with management sources, which suggested there was no real emphasis on BL within the observations, either externally or internally. One manager stated it was quite possible to get a top grade in a lesson observation without the use of any BL evidenced at all.

Teachers who were more prolific users of BL pointed out the ineffectiveness of the VLE measures, which were based more on quantity of resources and usage than on quality. One suggested that all BL measures across the College were misleading, as BL was not

sufficiently defined, so teachers used technology within a "Victorian pedagogy" with little interactivity or progress checking. Examples of this had been observed by one of the managers, who said she had often seen teachers using PowerPoints in much the same way you would a flip chart, and Smartboards no differently to using a whiteboard and pen, and that she would not regard this as "blended learning". When asked to identify the proportion of teachers in the College who regularly use a BL approach, Fay also acknowledged the limited use of BL tools to extend learning in the college, stating:

> "I would say probably at least 70% of teachers use Moodle for example as a form of storage and direct students to it and understand the need for that because of the Moodle audits that took place. They know this is part of the job now. How many genuinely use eLearning as a way to extend learning? Probably at best 25%."

Other interview participants were also asked to identify the proportion of teachers in their area (for the senior management team, this was across the College), that were using BL effectively on a regular basis. Predictions varied from 30% to 70%, with only the IT Department and Music Technology Department suggesting they all used technology-based learning daily.

Teachers and managers were asked in the interviews what the benefits or disadvantages were to them of meeting College BL measures. Most felt the measures were inadequate and that there was no benefit to meeting them. Some discussed the consequences of not meeting standards. At the time of the research, there was a process in place whereby those who did not use any BL in their lessons at all were asked to attend mandatory one-hour BL sessions. These were regarded as a punishment by some teachers and attendance was very poor. Teachers who were not confident BL users were also concerned about the impact their lack of use may have on their observation grades. Roger, for example, stated:

> "I got a grade 4 in one of my observations solely because I was teaching using the board and going round the class but the observer believed if I wasn't using an electronic marking scheme I should fail my observation."

After the interview, I reviewed his observation feedback and found that he had been downgraded on a number of other points as well. It was interesting to note that, as

someone who was not confident with blended learning, he had placed the blame purely on his use of technology rather than other aspects of his pedagogical practice.

4.4.5 Time and Cost

"Time and Cost" code was applied wherever a source mentioned the time and cost of BL to the organisation, teachers or students, or how BL could impact time and cost efficiencies.

The time and cost impacts of BL as drivers or barriers to BL adoption, was the third most mentioned topic when considered in relation to the impacts on the College as a whole.

Policy maker sources gave explicit examples of how BL could drive cost savings and free up teacher time to be spent on other activities. However, there was also some doubt as to whether or not the time and costs of developing appropriate infrastructure, training, development and updating of content would result in an overall reduction of operating costs for Colleges in the near future.

Management sources gave specific examples of BL being used to implement College-wide mandated training in a quick and cost-efficient manner. For example, Mark commented:

> "I've seen eLearning used for things that would be more general across the college, like mini assessments on how students appreciate/understand safeguarding and general college-wide issues that we may want to disseminate. I've seen elearning used in the college in terms of upskilling staff and making staff aware of things like safer recruitment. Sometimes it's more convenient to use an elearning package so there is a more flexible approach than all staff attending a half day session."

Many of the other interview participants also cited the Prevent eLearning course as an example of the use of BL to reach a wide range of learners and teachers in a very short space of time, with very little implementation cost other than the initial building of the resources, which was completed as a collaborative effort between the local police and the College eLearning department. Costs of infrastructure and implementation were

also considered and the College was working with a purchasing consortium to upgrade its IT infrastructure to support technology-based learning.

Teacher sources suggested the time and cost involved in BL was both a driver and a barrier. For example, those who were regular users of BL could cite a range of ways that the technology saved them time, including reducing marking burden and the availability of engaging ready-made materials they could slot into their lessons. They also identified that the cost of BL resources, including software licenses, equipment costs to both the College and students, and the time costs of creating your own resources could be a barrier to use. In the past, Jackie had spent her own money to buy spare sets of headphones for those students who could not afford their own to listen to online resources. She stated:

> "The only thing I worry about is those who are from a poorer background and don't have access to the internet or a computer at home. It is rare but there have been a few cases this year. Not only can they not access it outside of class, but they might also not be as comfortable with it in the class as their classmates. You tend to forget they might not be as tech-savvy when doing the things you are asking everyone to do. There was one student who borrowed a College laptop to work from home. Another didn't have the internet at home so all my resources were irrelevant to her."

Cost of software was mentioned by two teachers who were prolific users of BL. These teachers had researched then paid for software applications out of their own pocket to build resources for their students. For example, Cath stated:

> "I did quite a lot of buying things myself and playing around with them to see if they could do what I needed to do before I found the right one."

One of the College's best users of BL expressed his disappointment at not being able to create more professional resources with BL authoring tools such as Captivate as the department could not afford the license fee. However, most of those interviewed were using freeware or low cost software such as Kahoot, Prezi and Muvizu to develop resources for their students and many then went on to share these resources with teachers from other educational institutions. Development was generally done in their own time rather than during work hours.

The amount of time required by teachers to create and deliver BL was discussed by over half of the teachers interviewed, and a quarter of the management sources. However, there was little mention of it in the policy maker sources in relation to the other teacher-specific topics.

Where sources mentioned the ability of BL to save teachers' time and effort, responses were contentious. For example, whilst the Government's Area Review Guidance (2016) indicated that teachers may choose to adopt BL practices as they experienced improved efficiency, in terms of saving time and money on the production of resources, and opportunities to share resources both within and between institutions, the same document stated that development of BL can be a time-consuming and costly exercise and requires carefully managed collaboration with other institutions to be cost-effective.

Both Policy maker and management sources discussed barriers to adoption of BL in terms of the extensive time required to train teachers on the use of technologies, then to develop the resources before implementation. However, there was consensus that once this initial hurdle was overcome, BL allowed the teacher to make more effective use of their time.

Teacher and manager opinions on the time required to adopt a BL approach were neatly summed up by June, who commented:

> "The main problem is time. We can't afford to give everyone more money to do it, but what people really want is time to try it out. If you gave people regular remission or training days, you would get more done. There is not enough time to plan your lessons as it is. The College is trying on the face of it to get lots of IT training going - people can go to basic computer skills classes or whatever. But when are they going to do it? The schedules are all built within the teaching week, we've got another hour a week - taking it up to three hours of people's DD time - taken up with training on a Tuesday afternoon then meetings and interviews on a Wednesday. If you take away three hours of a full-time teacher's DD time they have very little time to do any planning."

As a result of this time squeeze, it was suggested that unless the use of BL is implemented as a top-down initiative, teachers are unlikely to perceive it as important

as meeting many of the other performance indicators by which they are measured. This appeared to be a particularly strong view amongst those who were less confident users of blended learning, who suggested that unless BL training and implementation was mandated and checked, they would be unlikely to use it as they would rather use their time for more pressing matters.

Conversely, those who were using BL extensively in their classes were able to cite several ways that BL helped save them time. This included being able to monitor progress easily and provide quick, centralised feedback to students. They liked the way that BL tools such as the VLE allowed them to organise lessons and store paperwork, saving time looking for lost assignment submissions and resources.

Teachers and managers who were confident with BL discussed the wastefulness of printing out huge quantities of assignments for marking and the physical awkwardness of having to carry around that marking, with the potential for assignments to get lost or mixed between marking piles. Through using Google Classroom for submission and marking of assignments electronically, they no longer had to deal with huge quantities of paperwork, and they regarded this as a huge driver for BL adoption in their own practice.

4.4.6 Resources

"Resources" was coded wherever there was reference to the impact of resources in the adoption of BL by teachers.

Resources were the third most discussed teacher-specific topic overall, mentioned by three quarters of teachers interviewed and almost half of all the policy maker and management sources that discussed BL.

College management sources considered resources from an enabling perspective, with internal meeting minutes often discussing gaps in resources and plans for resource implementations. Very little time was spent within these meetings assessing the success or failure of resource implementations from the teachers' perspectives, although for each of the above examples, teacher training and monitoring at the initial stages was discussed in detail.

Policy maker sources tended to focus on a lack of resources as one of the key barriers to BL adoption, and much of the discussion within these documents related to ways to improve infrastructure and tools. Resource projects mentioned in the policy maker sources included work by JISC on developing College IT infrastructure and BL tools (Great Britain, Department for Business Innovation and Skills, 2014) and support for teachers in providing digital content (Great Britain, Department for Business Innovation and Skills, 2015).

Compared to policy maker and management sources, teachers appeared to regard a lack of resources as less of an issue, with Jack stating:

> "In terms of machines, this is the best resourced college I have worked at. We have lots of computers in rooms."

Only three of the interview participants mentioned a lack of resources as a barrier, and this tended to be hardware-related. For example, some rooms do not have access to computers and others do not have Wifi or a network connection. This means BL is not

a practical option. They suggested that if this was fixed, they would be happy to use BL in their classes.

Almost all teachers identified that they used the College's VLE, Moodle, as a repository containing resources for their course. These resources included links to useful websites as well as recordings of lessons and documentation. Those who did not use Moodle mentioned their use of Google Classroom and Google Drive to both hold resources for their classes and to manage student submissions and marking.

Some teachers found it easier than others to use BL as there were already a lot of ready-made materials available for teachers to use within their lessons that were relevant to their subject. Engineering, Science and IT all had plentiful supplies of prepared resources available on the internet that they could connect to their LMS pages to make available for students, whereas some other areas, such as Childcare, did not have such a huge resource bank available. However, Mark pointed out that using generic resources could be problematic in some situations:

> "I think there's an abundance of material available and sometimes that's the issue. Because what really works for students is if the material is relevant for the particular course they are doing. If they see it as much more generic and not directly related to their syllabus or assessment of the course they're studying on it just becomes problematic - it becomes more of an infilling exercise or just using it for the sake of using it. The whole objective is improving the learning experience on the course they've enrolled on and if we don't do that, we're fluffing it a bit. Part of the issue of using generic materials is that the Awarding organisations we work with change things fairly frequently - content, assessment strategies and weighting, and to just use material that's generically available doesn't pay any consideration to awarding body expectations and changes."

Oscar, an "early adopter" teacher, was also concerned about the impact of not varying the type of resources used as part of blended learning, suggesting:

> "I watched a TED talk the other day with some bloke talking about how people go to meetings, watch PowerPoints, get bored, switch off then go back to their office and make an equally boring PowerPoint that switches everyone off when

they go and deliver it in their meeting - and it can become the same with eLearning if you are just using the same resources all the time."

However, Oscar and many others of those interviewed, made a lot of use of free or low-cost online resource-creation sites to make games and quizzes, including Moodle Quizzes, Kahoot and Socrative. Most teachers interviewed also used PowerPoint or Prezi presentations as a visual aid during lessons. Two teachers mentioned their use of Captivate (an eLearning authoring tool) and Muvizu (a tool for developing animations) which they had been using to create resources to make their classes more engaging.

4.5 Theme Two: Collaborative Practices as a Driver or Barrier to BL Adoption

Fullan (2013) frequently mentions the benefits that BL can provide in terms of collaboration between students, students and their teachers, teachers and their peers and teachers and the wider community. This theme was also frequently discussed in both the documents analysed and the interviews. It is coded from three perspectives: the College's formal collaborations with the wider community, collaborations established by individual teachers, and student-focused collaborations.

4.5.1 College Collaboration with the Wider Community

This code was assigned wherever a source mentioned the impacts of BL on institution-level collaboration with other institutions, employers or the community.

Although organisation-level collaboration was not considered at all by teachers, and was mentioned by only 5 management sources, it was a key focus within the policy maker sources, with almost half of the sources discussing it. This made it by far the most discussed organisation-themed topic within the policy maker sources.

Policy makers cited collaboration between learning institutions such as the PROCAT Digital programme (ETF, 2016) and the City of Glasgow's collaboration project with 18 academic hubs (JISC, 2015). They also suggested ways that agencies such as JISC and the ETF could facilitate collaboration between institutions through things like cloud-based services, digital resource content, advice on training, legal advice and security support. Whilst there were many examples of successful collaboration, some sources

suggested that there was an inherent distrust of collaboration within the FE sector, especially when it involved other educational institutions from the same area, as these were seen as competitors within the local market. This may explain the lack of reference to wider community collaboration within the management and teacher sources.

Ofsted (2013) suggested this lack of collaboration also applied between Colleges, their communities and local employers. Links between Colleges and businesses are now being forged through Government initiatives such as the Technology Strategy Board, which by early 2015 was working on 15 projects with businesses and Colleges to stimulate innovation in education technology and examples of successful programmes were later evidenced (Great Britain, Department for Business Innovation and Skills, 2016, p3). However, one policy maker source on FE reform (Great Britain, Department for Education, 2016) suggested that over one third of Colleges are not making use of these programmes, although those Colleges who are proficient BL users liaise closely with them.

Sources within the College appeared distrustful of the agencies' abilities to promote BL programmes, citing the lack of technical skills of some examination board employees and poor intelligence provided by Government Agencies on local employment, with a preference for the College to perform their own fact-finding mission.

Where collaboration was discussed from an organisational perspective, it tended to focus on community-based institutions, such as the local police force, or employers, and universities within the local area with whom the College had formal agreements to provide HE courses, rather than other academic institutions. Of these, some collaborative endeavours were more successful than others. For example, ParentMail, designed to keep parents and guardians informed of learner progress and attendance, and Kloodle, which was software which linked the College with local businesses for engagement and employment opportunities, were cited in the management team meetings, and in some of the interviews, as unsuccessful attempts at collaboration, whereas the Prevent programme was seen as more successful.

A few managers were able to cite examples of collaborative endeavours that had benefited the College, including visits to conferences, where people from different Colleges shared innovative ideas and technology providers were available to discuss

potential implementations; work with awarding bodies such as those providing apprenticeships, who develop BL resources and platforms to ensure consistency of delivery and assignment submission across the UK; and less formal collaboration where teachers from different institutions get together to share ideas either face to face or through chat rooms and social media.

However, there was some wariness about the extra time and effort involved in setting up and maintaining collaborations. For example, Mark attended an AoC conference, and in the week since his return:

> "I've probably had 50 emails from various organisations, wanting to come and visit and tell their story about eLearning in the FE sector….At my previous college I got involved with external organisations who wanted to sell their products, but I was always cautious."

Mark, and others, pointed out that part of their caution was due to the inconsistencies of quality when collaborating with others. This included collaborations where support had almost disappeared once the project had started. These issues are also identified in the policy maker sources, which recommended that careful consideration should be made in terms of project planning and partner selection before undertaking collaborative projects.

4.5.2 Teacher Collaboration

This was coded where teachers discussed their individual efforts, or working with their peers, to share ideas both with each other and with the wider community.

Collaboration was the most discussed teacher-specific code amongst both managers and teachers and was the second most discussed code in policy maker sources.

All teachers discussed the relationship between BL and collaboration as part of their interviews. Just over one third of management sources and one quarter of policy maker sources mentioned teacher collaboration.

Many of the policy maker sources cited potential for collaboration between teachers as a key driver for technology-based learning. For example, the FE Workforce Strategy Policy (Great Britain, Department for Business Innovation and Skills, 2014) focused on

the benefits of BL for teachers, in terms of the facilitation of communities of practice to share successful innovative practices. Examples of programmes put in place to facilitate this by policy maker sources included JISC's "Tech Development Day" (Great Britain, Department for Business Innovation and Skills, 2014) and the ETF Learning Futures program. However, other policy maker sources suggested that teachers tended to rely on personal experience to develop their own use of learning technologies and there was very little top-down support or opportunity to share their own experiences with others across the FE sector.

Management sources indicated that very little was being done within the College during the research period to facilitate teacher collaboration with their peers in the College. Those who were identified as excellent practitioners were invited to become IT Heroes and attended quarterly meetings to share examples of best practice, which they could then disseminate within their allocated departments. Advanced Practitioners were also supposed to support teachers and encourage collaboration in BL adoption but, as Fay stated:

> "If you look at our advanced practitioner team, the commitment and skills - many of them are quite poor."

This lack of an overarching culture and support for collaboration meant that, apart from managers (who have access to current measures of BL use within the College and are part of the teams who assess BL use through reporting and observation), most participants had very little idea of how others in their department were using BL, and gave very low estimates of their department's use of blended learning. Some, such as Dan, relied on their students to tell them what was happening in their other classes. The only exceptions to this were members of the ICT , Performing Arts and Music Technology teaching teams, who openly shared their resources and have regular discussions about their use of BL.

Many of those in departments which were generally poor users of BL expressed an unwillingness to post resources to central banks for students to use as the participants did not want to share their resources with other teachers. For example, Roger stated:

> "They would like me to use Moodle so they can rip off my resources, which makes me reluctant to put my things up there."

Where early adopters of BL were working in a department which did not favour collaborative practices, they tended to look for communities of practice outside the College. For example, Dan belonged to online teacher forums in his subject area and, when asked why his department didn't share resources or BL best practice he commented:

> "I don't know to be honest. People might be protective of their resources but I wouldn't like to think that this is the case, because you should share whenever you can. You get loads of stuff off places like Wikipedia and TES anyway, so it's not really creating it yourself but more about arranging it coherently, well that's what I do anyway. So I don't feel any ownership."

Conversely, a departmental culture of collaboration and resource sharing seemed to be a clear indicator of successful BL adoption within departments. Although some participants commented that they successfully used and shared BL resources because their departments, such as ICT and Music Technology, naturally lent themselves to its use, this was not the case in some other departments which were early adopters of blended learning, such as the Performing Arts department. The common theme across all these departments was a willingness to share best pedagogical practice, with formal structures built in such as a standing item on the weekly department meeting agenda, resource banks for sharing and collaboration tools such as social media and Google Classroom.

4.5.3 Student Collaboration

Student collaboration focused on the perceived ability for BL to facilitate student collaboration from three different perspectives: peer collaboration, student-teacher communication and student-world collaboration, and the impact this perception had as a driver or barrier to BL adoption.

There was a huge difference between decision-making levels in relation to the number of sources that discussed student collaboration.

Whilst three quarters of teachers discussed student communication, only a small proportion of managers and policy maker sources included reference to it.

Sources from all levels suggested poorly designed BL may prove a barrier to communication and create a sense of isolation for students. However, many of the management and teacher sources pointed out that a blended approach could improve student collaboration.

4.5.3.1 Student Collaboration with Peers

The ability of BL to facilitate communication and collaboration between students and their peers was rarely mentioned by policy makers, although Ofsted (2013) discussed the use of BL to improve peer communication and collaboration by the College's IT teachers, suggesting more could be done to encourage online collaboration and peer review activities.

Teachers and managers identified the importance of peer support and communication, with Cath stating:

> "I think students learn better when they have some personal interaction."

Many of the teachers and some managers identified improved opportunities for student collaboration as a driver of BL adoption and were able to give clear examples. These included students using social media to display and comment on their own work, provide feedback on each other's efforts and support each other; students working collaboratively on one document - such as a report or an IT resource; and students supporting each other out of hours through online homework groups.

In the literature review, I discussed the findings of Cooke (2016) and Yap et al (2015), who suggested that collaborative tools such as those mentioned above helped students build relationships within their class groups. This was confirmed by those in the study, who suggested that the peer support often extended beyond coursework, with students offering emotional support and encouragement to each other using the collaborative tools provided.

Conversely, some teachers saw the potential loss of opportunity for group work and building of face to face communication skills as a barrier to BL adoption, suggesting that many tasks which were group-oriented in a classroom situation became solitary tasks focusing on individual achievement when BL was involved. For example, Sue stated:

> "There is an issue now in that access to social media and online technology means that many young people naturally live in a very isolated way. We are trying to work against that culture by encouraging more human interaction in learning. Learning in an isolated way really reduces the student's learning experience."

This reinforces the findings of Nedeva et al (2010), who suggested that heavily individualised eLearning can lead to a feeling of isolation for learners. As discussed by others in the interviews, it was therefore important that BL at the College was designed to facilitate rather than hinder student communication with their peers.

4.5.3.2 Student-Teacher Collaboration

Within policy maker sources which discussed student communication, BL was generally assumed to improve student-teacher communication. For example, the QAA gave best practice examples of students using their VLE to feed back to their teachers and management team on the quality of teaching provision (QAA, 2015), and both the QAA report and Ofsted Report of 2013 gave examples of technology being used effectively in the College to communicate core information easily to huge numbers of students.

The use of BL tools to facilitate feedback from teachers to students (and, in some cases, from students to teachers) on coursework and exams was discussed in Policy maker documentation including that of the ETF (2014), highlighting the benefits of timely feedback and student progress tracking to improve student achievement. It was also discussed in management sources, such as Technology and Innovation meetings, where minutes noted discussions on the use of a special VLE page to provide homework across courses for each student, using TurnItIn assignment submission software to provide feedback to students on plagiarism and also as a marking tool, and latterly the use of Google Classroom to facilitate communication between teachers and students outside of the classroom.

Many teachers interviewed identified improved student-teacher communication as a driver for their own BL adoption. For example, Mark stated:

> "I think it absolutely essential for students to interact with teachers and develop professional relationships with teachers and if eLearning complements that in a very planned and organised way, which I guess a lot of people might now describe as a blended approach, I see huge advantages in that."

Most were able to offer clear examples of how BL had improved communication with their students, for example with immediate progress feedback through Moodle and Kahoot quizzes, communication outside of class time through social media and Google Classroom, and improved formal feedback channels using Google Classroom, Moodle and TurnItIn for marking and feedback. This helped not only with organising feedback and ensuring it was provided in a timely manner, but also with the clarity of feedback. For example, some were providing video walkthroughs as feedback to support those who struggled with written feedback. Jack also stated:

> "Recently I have been using Google Docs for marking because my handwriting is rubbish."

Some teachers and managers commented that the use of these tools was driven by the students, with Sally saying:

> "It was not something that I particularly taught them how to do. They already knew how to do it and I taught myself how to do it because they're using it. "

However, there was some concern, especially amongst "laggards", that moving towards online communication would not only exclude those who struggle with technology, but would also have a detrimental effect on their relationships with their students. This links to a barrier to BL adoption identified by some teachers, who were worried that their role would be replaced by purely online resources, or that it would lead to a loss of interaction with students, which teachers valued as one of the core functions of their job.

4.5.3.3 Student-World Communication

Where policy maker sources discussed BL as a facilitator of student communication, there was a strong focus on communication with the wider world, relating to both work experience and culture. The FE Reform Program (Great Britain, Department for

Education, 2016) for example focused on communication between government bodies and students to help keep students safe through things like the Prevent programme and online safety programmes, whereas the Government's response to the FELTAG report (Great Britain, Department for Business Innovation and Skills, 2015) encourages the use of BL to facilitate links between local small businesses and College students.

Management sources within the College also discussed how BL could be used to encourage communication between students and the outside world, citing College-wide BL programs such as "Prevent" and Kloodle (although, as discussed earlier, Kloodle was perceived by some sources as a failed programme).

Andrew pointed out that some subjects naturally linked to technology-based communication with external agencies, stating:

> "Motor Vehicle have a defined package with e-portfolios and licensed software which links to the curriculum. Students can access this and work through it on their own. I think part of it is around access and part of it is around external products that they can use to develop their curriculum. Engineering and electrical use BL really well, as I have said before."

Most teachers were able to give specific examples of their own practice, including the use of BL tools to allow students to interact with experts through sites such as the Royal Shakespeare Company and the British Library. Some also highlighted the opportunities provided by social media tools to enable students to converse directly with experts, such as BBC chatrooms following documentary programs and podcast comments.

In conclusion, it seems improved communication is a driver for BL adoption, and there is evidence of it being used successfully in some areas of the College. However, a lack of knowledge and drive for change from senior management is a barrier to using BL for improved communication, especially with external organisations and the local community.

4.6 Theme Three: Student Engagement

The theme of student engagement related to the perceived impacts of BL on student inclusion, engagement and achievement, and whether these perceptions were drivers or barriers to adoption of blended learning.

This theme consists of the following codes:

- **Inclusion**: this combined three of the original codes: the organisation-related code of Duty of Inclusion, relating to the College's legal duty to provide inclusive learning; the student-related code of inclusion, relating to the College's ethos of providing learning opportunities that would otherwise not be available due to the student's context; and the student-focused code of "Flexibility", which discussed the opportunities for flexible learning provided by blended learning;
- **Engagement**: the ability to keep the student interested in learning through both content and different delivery methods;
- **Achievement**: the ability to improve grades and learning skills;

This section outlines the results in terms of each of the above codes, identifying where they may be drivers for BL adoption and where they may be regarded as barriers to adoption. Where potential for overcoming barriers was discussed, these have been included within the findings.

The two most frequently mentioned codes were student inclusion and engagement, followed by flexibility and achievement.

4.6.1 Inclusion and Flexibility

Policy maker sources highlighted the legal duty of inclusion as a driver for BL adoption. FE Colleges have a legal responsibility to ensure learning is accessible to all under the Equality Act 2010. This has had an impact not only on learning providers but on awarding bodies, who, for example, now have to offer accessible digital versions of formal exams.

As a social obligation rather than a legal duty, inclusion was one of the most discussed codes across all levels of the organisation and was the only student-focused code which was regarded with equal importance by both teachers and policy makers. Some policy maker sources (e.g. Pennacchia et al, 2018) suggested that BL provides the flexibility required for those who must juggle education, work, family and caring responsibilities, but BL can also provide opportunities that might otherwise not be available for those with physical disabilities who may not be able to access the College, those who have learning difficulties or mental health problems, and those who struggle with English.

To facilitate this provision, government agencies, such as JISC and ETF have resources available to enable accessibility, such as the Access YouTube initiative to allow those with limited or no vision (or other disabilities) to access learning resources on YouTube (Govt Response to the Feltag Report, 2016). They also provide advice where required to management teams on compliance.

The DfE included the provision of online learning opportunities for students as an indicator within its Teaching Excellence Framework (Great Britain, Department for Education, 2017a) and both quality assurance agencies reviewing College practices (Ofsted, 2013; QAA, 2016) discussed the benefits to students at the College who were regularly provided with online lesson notes, resources and schedules of dates for revision and out-of-class learning.

Many College managers and teachers, particularly those with learners who undertook exams as part of their courses, suggested this flexibility of access to online lessons and resources for revision was an important driver in their use of BL. For example, Cath explained the benefit of her mobile phone-friendly homework resources, stating:

> "They can do it on their phone and lots of our students have really long journeys into college so they do it on the bus on the way in - and their results are collected in a central place so I can see what they've done and feed back to them."

However, the flexibility of BL wasn't just about offering resources at times to suit students. A JISC report (JISC, 2015) included in the document analysis, suggested traditional teaching and learning pedagogical practice strongly focus on text in three

core areas: listening, reading and writing. This can create barriers for those who have print impairments (up to 10% of learners), those with English as a second language and those with sensory or memory issues. Agencies had been working to provide alternative resources to overcome these issues, such as JISC's Access YouTube project, which allows users with vision impairment and other disabilities to access learning resources on YouTube (Great Britain, Department for Business Innovation and Skills, 2015a), and text to speech software available to all students at Runshaw College (JISC, 2015). Within the College, management and teacher sources also discussed ways to ensure the College was using BL to improve accessibility, especially in terms of those with English as a second language, or those with reading and learning difficulties. This included discussions regarding the implementation of fully online formative feedback on student work such as video feedback to support those with reading difficulties, and lessons provided in different formats to suit learning styles. For example, some teachers would provide written notes for a topic but may include an online video or a podcast on the same subject to help those who struggled with reading large quantities of text.

However, members of the senior management team expressed concern, in both College documentation and later in the interviews, that some less capable students may struggle with using the supporting technology, resulting in the technology becoming a barrier to inclusion rather than a driver. Also, there were concerns in relation to the costs of technology resulting in some students not having access to the technology they required to complete tasks out of College. Teachers also expressed concern regarding inclusion, with Jack stating:

> "The only thing I worry about is those who are from a poorer background and don't have access to the internet or a computer at home. It is rare but there have been a few cases this year. Not only can they not access it outside of class but they might also not be as comfortable with it in the class as their classmates. You tend to forget they might not be as tech-savvy when doing the things you are asking everyone to do. There was one student who borrowed a college laptop to work from home. Another didn't have the internet at home so all my resources were irrelevant to her."

Internal policy changes were in place to ensure that the College could provide for students in this situation wherever possible. Although student access to technology outside of College was improving, with 86% of 12 - 15-year olds now having regular access to mobile phones (Statista, 2018) access was still regarded as a barrier to BL adoption by those within the College (e.g. Corporation Committee, February 2016).

Nine managers and teachers interviewed considered inclusion a key factor driving their use of blended learning, giving examples of students who struggled to understand in class, or had to leave classes early due to childcare commitments, or those who suffered from poor mental or physical health having to miss classes on a frequent basis.

Most teachers provided online copies of the lessons with additional resources to allow students to catch up. Some also provided lessons in different formats to cater for those with learning difficulties. Sue pointed out that although this was a standard practice across the College, it did have a detrimental effect on attendance and on the inclusive nature of education as a whole:

> "...when the students are set individual work and all their resources are available online, they think they might as well not bother coming into College because they have everything they need to get their work done at home."

Jackie commented on a practice that is not generally mentioned in policy documentation, but which was also discussed by others in the interviews. This was the ability for BL to engage and extend those who are very capable but may have had poor experiences with educational environments in the past or do not wish to be seen to over-achieve in front of their peers. Jackie stated that she provided extensive additional "Stretch and Challenge" exercises only in an online format to allow students to engage with deeper learning in their own time. Although it wasn't discussed in the interviews, I was aware that in the past this had included additional certifications through external bodies that the student could study alongside their College course.

None of the interview participants mentioned students using online resources to prepare for lessons and the College Ofsted Report (2013) regarded this as a weakness in terms of BL use, particularly in Science and Maths classes.

Two interview participants pointed out the benefits of BL in terms of standardization rather than flexibility. One, a manager, gave as an example the online Engineering apprenticeship portfolios and resources. He stated that the environment, including marking, submission dates and resources are the same for all apprentices across the UK, so every individual knows they are being treated fairly and consistently. The other, a teacher, discussed the benefits of providing online self-marking assessments for the same reason.

4.6.2 Engagement

This code primarily related to the use of BL to add interest and variety when used in conjunction with traditional teaching methods to encourage student engagement.

Student engagement was a significant driver for those in the study who were teaching on a regular basis: half of the teacher participants acknowledged student engagement as an important driver of BL adoption.

However, it seemed to have less focus than many of the other drivers at the senior management and government policy level. For example, Andrew, a member of the senior management team interviewed, suggested that those teachers who were "natural entertainers" were perfectly capable of keeping their students engaged throughout the lesson using more traditional teaching methods and may not therefore need to use BL to engage learners as much as less confident teachers.

Discussion around student engagement centred around two factors: engagement through content and engagement through methods of delivery.

4.6.2.1 Content

Where policy maker sources discussed student engagement as a driver for blended learning, they tended to focus on content which linked into vocational settings, providing students with real life examples and experiences. Internal College documentation suggested more thought had gone into this at a local level, with governors discussing gamification as a way of engaging students (Corporation Meeting,

February 2016), and Technology and Innovation meetings regularly discussing resources and content suitable for engaging students within the College.

Most of the discussion regarding engagement through BL content as a driver for BL adoption took place in the interviews. For example, Anna was very focused on ensuring her BL content caught the students' interest, stating:

> "Because I come from a background of teaching large cohorts it's really difficult to have hour long seminars and keep them engaged especially using old technology like acetates. So eLearning links into their learning and it also takes up their interest - you can give them something that is really pretty or related to a band or something that they're interested in."

Roger, a teacher classified as a BL laggard, thought where BL was of most benefit was in supplementing his traditional teaching practices with more visual materials, suggesting:

> "I can pull up practicals, images, things which I cannot draw or explain. This allows me to give a bigger, fuller picture. In that respect it is very useful, and I would be completely lost without some of my YouTube videos".

This concept of providing a bigger picture was also highlighted by Jackie, an early-adopter curriculum manager, who commented:

> "You can have the same materials presented in different ways, so the students get different viewpoints on it. Rather than just exposing them to what the teacher says they can go and see what other people have got to say on the subject, so they can get a broader view on topics.".

From what her students had told me in the past, Jackie made a lot of effort in her classes to ensure that students engaged with their topic in the outside world, and she set them homework such as contributing to BBC Forums run by celebrity subject matter experts, and listening to regular podcasts.

Another aspect of engagement which was mentioned in the interviews was the ability for BL to bring real-life scenarios to students that might otherwise not be possible, and in some cases forging links with potential employers. For example, the Performing Arts department use the Globe Theatre virtual reality online application to help their

students visualise performances and back stage processes, the Music Department use online applications to simulate recording studios and acoustics, the IT Department have accessed virtual reality apps, blogs, vlogs and business cases on the internet, and the Engineering Department use products associated with the manufacturing sector within their classes.

Although these examples suggest active learning activities, some interview participants regarded the passivity of some BL as a barrier to their use of blended learning, such as watching videos or working through PowerPoints, compared to active social learning through classroom discussion. The regulatory documentation (Ofsted, 2013) also identified this issue, suggesting that some teachers in the College were not doing enough to promote active, collaborative learning through technology.

4.6.2.2 Delivery Methods

A common driver for BL use indicated across all levels was the ability to engage learners by matching classroom learning methods with the way that the current generation of students learns in everyday life, to create a "friendlier learning environment". Jan, a member of the senior management team, was very conscious of this, stating:

> "I'm watching my three-year-old grand-daughter use computers and phones before she can speak properly, and I'm thinking "How are we going to teach these children?". They are already in the system - they're coming in now. But the crowd coming in five years' time will be even more advanced. So, I think we need to elevate eLearning to a much higher forum and I think we need very good eLearning people to lead on that in colleges where they will get supported."

Examples of media that participants thought engaged the current generation of learners included video (such as YouTube), online puzzles and games and social media (such as Facebook and Twitter).

The Performing Arts Department made extensive use of Facebook in almost every lesson as a tool for collaborative learning and reflection. Nominated students recorded practice performances on their mobile phones, then posted the videos on a

closed Facebook group for the class. Both students and teachers were then expected to comment on the page, offering positive feedback and suggestions for improvement. Interview participants from this department suggested this process closely imitated existing practices in the "real world" of Performing Arts, building career skills for their students whilst allowing them to work in a medium with which they were already very familiar.

The use of mobile phones as learning tools in the classroom was contentious, and was discussed at all decision-making levels reviewed, although this was most frequent in the teacher interviews. QAA best practice documentation recommended the use of mobile phones for learning (QAA, 2015), and four interview participants said they encouraged their students to use their phones to find information in the class. However, others were concerned about monitoring inappropriate phone use, or the potential for exclusion of those who did not have a mobile phone. Roger was concerned about his students' ability to use their phones for anything other than texting or phone calls. This difficulty in transferring personal digital skills into a learning environment was also highlighted in policy maker sources (e.g. JISC, 2015) and discussed in three of the College's Technology and Innovation meetings.

Almost every teacher commented on the use of interactive whiteboards, computers and tablets in their classrooms and was able to give examples of how their students use each to facilitate active learning. These three key delivery methods were also mentioned by managers and policy makers. However, whilst all participants were able to provide examples of where they had used whiteboards, tablets and laptops, some were reluctant to use them due to a lack of knowledge and concerns that the technology would fail. This is discussed in more detail under Theme Four in this chapter.

As a final point regarding student engagement, whilst policy makers often appeared to assume that most lessons would benefit from technology-enhanced learning, there was acknowledgement by some sources across all levels that in some instances technology-based learning is not appropriate and that in some cases may disengage learners. This may be due to the nature of the lesson or it may be that the learners are not equipped with the skills (either technology-based skills or personal learning skills) to cope with technology-based learning. For example, Jan stated:

> "I don't think every student will manage eLearning, and I say that with my specialist hat on, because I don't think some students can manage screens, dexterity, they have to have paper. Which is why when I hear that everything is moving over to electronic devices my head goes up and I think hang on a minute, 80% might but what about the 20% who won't manage?"

Therefore, there was concern that setting compulsory targets for the use of blended learning, such as that suggested in the FELTAG report, would result in a forced compliance, where BL would be used in situations where it would not enhance the learning of the student (NIACE, 2016).

4.6.3 Achievement

The achievement topic related to discussions about how BL was perceived to improve or hinder student achievement, and how these perceptions affected willingness to absorb BL into teaching practice.

Half of the teachers interviewed discussed the impacts of BL on student achievement whilst less than a quarter of management sources and policy maker sources commented on it.

Where achievement was mentioned in management and policy maker sources, it was discussed in detail. If we look at management sources for example, considerable time was spent in a few of the College's Technology and Innovation meetings discussing the potential benefits of using BL to improve student achievement through encouraging independent learning (September 2015), empowering learners (November 2014), improving speed and quality of feedback and providing improved learning opportunities for those with learning issues and disabilities (September 2016).

These themes continued in the teacher responses, with two of the more prolific users of BL in the classroom commenting on their ability to provide better, more standardised feedback in a timely manner. This drove their use of BL not only for efficiency reasons, but also because it helped them quickly identify those who were falling behind so that they could put remedial actions into place in a timely manner.

Others identified the ability for students to learn in a way which suited them and at their own pace when online resources were provided which complemented more traditional teaching methods. For example, one teacher commented that some

students pick up some topics in a class quicker than others, so by supplying recordings of the classes online the slower student can review and ask the teacher questions in their own time, and the face to face classes may continue at a pace which keeps everyone engaged.

Sources from all three levels, but particularly teachers, identified the ability for BL to help develop independent learning skills. For example, one teacher (Interview Participant 11) suggested:

> "It gives the person doing the learning some sense of ownership of the learning and I think it gives them a sense of independence separate from the person who is delivering the learning."

However, the focus on independent learning was discussed as a potential barrier in both management and policy maker sources. There was concern that learners below level two would be less likely to have the requisite independent learning skills to succeed with BL (NIACE, 2016, p 10). Paradoxically, the same report went on to state that lower level online courses are amongst the most popular funded by the Skills Funding Agency, so the evidence does not seem to support this point.

Where policy maker sources mentioned BL, they often linked digital resources with improved student outcomes but were less forthcoming about how this was achieved (e.g. DDCMS, 2017; NIACE, 2016). However, some policy documents did provide specific examples, including the use of electronic marking and student grade tracking (Area Review, 2016) and the use of vocation-specific technologies and simulations. For example, the 2013 College Ofsted Report suggested that the use of the same learning technologies for Engineering students on the job and in College drove improvements in students' independent learning skills and enhanced outcomes.

In contrast, some of the managers and teachers interviewed who were less enthusiastic adopters of BL suggested that in some instances use of BL would be a barrier to student achievement. Some participants stated that providing banks of targeted resources was "spoon feeding" students and hindering their development of critical research skills. They suggested this impacted the student's ability to become an independent learner, citing the prevalence of student plagiarism as evidence of this issue. There was concern that this was a learned behaviour from schools which then

had to be “un-learned” in College via plagiarism detection tools such as TurnItIn, with stiff penalties in place for non-compliance.

4.7 Theme Four: Teacher Engagement and Confidence

Theme Four turns the spotlight on the teacher, and their engagement with their pedagogical practice. There are two codes in this theme: teacher confidence and teacher engagement.

We will begin by discussing the perceived impacts of BL on teacher confidence in their pedagogical practice, and whether these perceptions are drivers or barriers to BL adoption.

From there we will consider the perceptions of blended learning’s impacts on teacher engagement with both their subject matter and pedagogy, and how these perceptions may drive or hinder BL adoption.

4.7.1 Teacher Confidence

This code focussed on the capability and willingness of teachers to incorporate BL tools and practices into their pedagogical practice. It linked closely with the discussion in the literature review on change management.

Teacher confidence was the strongest teacher-themed topic in terms of the proportion of mentions across all decision-making levels. It was discussed in detail by most teachers in their interviews. Policy makers were the group next most focussed on teacher confidence, with almost half of all policy maker sources that discussed BL mentioning it. Teacher confidence was the third most mentioned teacher-focused topic by management sources, with just over one third of sources discussing it.

Policy maker sources suggested that teachers’ lack of confidence in use of the technology often created a barrier for BL adoption. (DDCMS, 2017). It was indicated that employers did not pay enough attention to digital literacy during recruitment

(ibid, p5) and, once staff were employed, teachers were not given enough opportunities to train on these technologies in a timely manner (ibid, p5; Technology and Innovation Group, Sept 2016, p2). Even when BL was included in professional development, teachers were not given enough time to research, practice and build their own materials, nor were they rewarded for experimentation and successful use of BL (JISC, 2015a). This led to uncertainty and in some cases fear of adopting BL into pedagogical practice.

Both policy maker and management sources tended to focus on this issue as a lack of skills which could be overcome with training, whilst the interviews with teachers suggested deeper issues. These included three barriers to BL adoption: a lack of knowledge about how to use the technology, fear of the technology not working properly when you are in front of a class, and fear of change from tried-and-tested traditional teaching styles into a more blended approach.

4.7.1.1 Lack of BL Skills

Policy maker decision-level sources discussed offering sanctions or incentives to encourage teachers to adopt BL as part of their delivery. This included initially a suggested target of 10% of all delivery through BL (NIACE, 2016). However, there was concern that there was not the expertise and experience available within Colleges to meet this target (ibid; Great Britain, Department for Business Innovation and Skills, 2014).

The documents reviewed included an extensive strategy document outlining how skills were to be improved (Great Britain, Department for Business Innovation and Skills, 2014), with programmes run by JISC and the ETF set up to help train teachers in BL use (Great Britain, Department for Business Innovation and Skills, 2015), and a bank of resources made available for teachers to share. This included commissioning of a £1 million Learning Futures Technologies programme grant to "develop the capacity and capability of FE leaders, managers and the teaching and support workforces to use BL technologies effectively" (Great Britain, Department for Business Innovation and Skills, 2015, p7). According to other documentation within the analysis, a year after its implementation, only 13 projects were in process nationally. However, new teacher training programmes had been amended to include sessions on embedding BL into the

curriculum, and the ETF had included reference to learning technologies capabilities in its updates to professional standards for FE teachers (Great Britain, Department for Business Innovation and Skills, 2014).

Analysis of the management sources suggested there were no externally-run programmes in use in the College during the research period and there had been no contact with the eLearning Manager regarding training or BL resources from either JISC or the ETF.

College management sources discussed teacher technology-based skills gaps regularly and there was a formal annual process to identify weak areas of knowledge across the College and target these with specific training sessions. It appeared that this had unexpected consequences in terms of boosting teachers' confidence, with Cath stating:

> "I do dutifully do the IT survey every year and every year I think, oh, I do know a bit more this year than I did last year. "

In some instances, the Technology and Innovation group arranged targeted training sessions for specific initiatives, including homework tracking, Prevent policy training and data protection.

Most of the teachers interviewed stated they were confident with a variety of BL tools and could discuss how these were used effectively within their classes. However, they also expressed concern about a general lack of learning technology skills within the College, and dissatisfaction with the training on offer to improve these skills.

One of the managers, Marie, had only ever attended one BL training session, and was obviously quite upset at being made to feel incompetent in front of her peers. She stated:

> "I did some training years ago, I think it was with Tony but he told me I was rubbish. There's lots of things I see people do and I think I would love to be able to do that, like using the interactive whiteboard. But I don't give myself time to learn things properly…I was a bit put off when I did Tony's training. Because I didn't know what I was doing at all he thought I was taking the mickey and he wouldn't train me properly."

Marie's negative experience reinforces the findings of Zhu (2015) discussed in the literature review. Zhu suggested the risk of exposing a lack of skills to peers and managers was a potential barrier to the adoption of blended learning. Marie was keen to learn the skills she needed, but was afraid to put herself back in the situation where she could be humiliated.

Those who had attended more recent Professional Development Day sessions on learning technologies stated they would prefer more hands-on sessions so that they could practice what they had learned using their own materials. Although hands-on sessions were available every Tuesday afternoon, they felt that there were too many other time pressures for things like completion of paperwork to allow them to attend.

Seeing how BL had been implemented successfully by peers was regarded as a driver for BL adoption. Two of those interviewed suggested the ideal training for teachers is to see BL in action in classes through the medium of peer observations. Andrew stated:

> "There are arguments for getting teachers to undertake peer observations, which I am a big fan of, but we just don't have the time with teachers teaching 25 hours a week… you can get so much from peer observations."

Others discussed the popularity of IT Champions, who could share ideas and resources on an ad-hoc basis that were subject specific. Although Sue was not aware of the reinstatement of IT Champions in the College, she was enthusiastic about the concept, stating:

> "I do miss having the old IT champions that we used to have in the past. There was one in each area that was someone who used IT really well and was available to help others in the department and to share their ideas. This was brilliant because it was context specific, so we learned about things that suited our requirements. I think sometimes the generic training sessions are not so good because they may not be resources that suit the way we do things."

This participant suggested that often the generic BL training sessions offered by the College were not relevant to her curriculum area. This resonates with our discussion in the literature review regarding the separate department cultures within the College,

and the need for individuals to understand how they fit into the BL "story" within the College (Lawson and Price, 2003).

Four of the teachers and managers interviewed had undertaken external BL training courses independently to learn how to develop their own materials. These ranged from an Open University course to online tutorials on creating SCORM packages and video tutorials. None mentioned use of the JISC or ETF facilities.

4.7.1.2 Fear of Technology Not Working

Although teachers' fears of non-functional technology were not discussed in any of the policy maker or management sources analysed, policy maker sources identified that technology in some Colleges was not up to standard, leading to issues with implementation (Great Britain, Department for Business Innovation and Skills, 2015) and, as a result, increased JISC funding to improve internet resilience in Colleges. This included supporting development of improved network infrastructure, staff training, advice on cloud connectivity and security issues (ibid).

Management sources recognised the issues with confidence in the technology faced by some teachers and discussed some issues with faulty smartboards, gaps in WiFi coverage in some classrooms and the use of new, portable equipment such as tablets and laptops. Where individuals were identified by managers as having issues with their software or hardware not working, the support teams (IT or blended learning) stepped in to provide extra training and support.

Teachers who were identified by their peers as being regular users of BL in their lessons made little reference to issues regarding the functionality of their hardware or software. However, most of the "laggards" cited unreliable equipment as one of the key barriers to using blended learning. For example, Roger stated:

> "I don't like writing on Smartboards. Occasionally I do use them in that respect but if I had a choice between a Smartboard and an ordinary whiteboard, I would choose the whiteboard every time because they are reliable and they work every time, whereas Smartboards have lots of foibles. Also, you are not helpless if they suddenly break down."

Examples of unreliable equipment included broken Smartboards, lack of internet connectivity and missing resource links. Smartboards were mentioned the most. There are Smartboards in most classrooms in the College and all teachers interviewed discussed their use of Smartboards as a learning tool. Some were able to record lessons on it and save notes to Moodle for later reference. This was useful for both exam preparation and to help those who may have missed a lesson to catch up later.

One "early adopter" teacher suggested that the best way to overcome this fear of things breaking was to show other teachers using it successfully in their lessons, then to give teachers who are new to the technology time to practice what they have learned, to reassure them that the hardware and software is robust.

4.7.1.3 Fear of Change in Pedagogical Practice

Policy makers recognised an underlying fear of pedagogical change in Colleges, responding with a requirement to drive adoption of BL through regulatory bodies, including Ofsted and Ofqual, and we have discussed above initiatives such as teacher training to help overcome these issues.

Managers and teachers also identified an underlying fear of pedagogical change in the College. For example, when Fay was asked why some teachers are not keen to use blended learning, she responded:

> "Fear. Age. Time. Work pressures. I would say it's only a really small percentage of teachers that don't care - less than 5%, maybe less than 2%. I think that the teachers 40+ that weren't brought up with technology, it's hard for them - and it takes time. It's not just about the training time with someone like yourself, it's then the practice time with students - trying it out, getting it wrong, and fixing it. And that's the thing, isn't it? When you're learning new skills and you get it wrong, you just have to keep going until you work out how to do it right and keep on persevering until you get to the point where it becomes a time saver. However, I think in the medium to long term (and I think this has already happened certainly in my period of teaching of the last 10 years) that there has been an increasing culture shift in colleges whereby it becomes less and less acceptable not to use [blended learning]."

Due to the perceived deficiencies in the College's training programmes discussed in the previous section, teachers tended to rely on early adopters within their own groups or in other groups in the institution to support their learning. When early adopters left, this often affected the use of BL, as they were no longer driving change, nor were others able to support the technologies the early adopter may have been using. This was indicated not only in teacher and manager-level interviews, but also in policy maker sources relating to the College, for example citing that due to staff changes there were no longer audits on the College's VLE (QAA, 2016).

One of the senior management team interviewed identified that those who were excellent users of BL in their classes were comfortable with change, and constantly reviewed and amended their pedagogical practice to improve it across all their teaching practices. She gave an example of one teacher in the College:

> "Firstly, she has really invested quite a lot of research and thought into how students learn best and that she has over a period of years really attempted to find differing, innovative, interesting ways of engaging and extending the learning of her students and she is also aware of research evidence of how the use of BL can help extend students to achieve higher grades, so she is committed to it from a pedagogical point of view."

In this instance, a drive to use innovative pedagogical practice lead to the use of BL in teaching.

From a different perspective, one policy maker source suggested that one of the reasons teachers may like using BL was a preference for using technologies they were familiar with in their everyday lives, such as smart phones for research, and a general curiosity about incorporation of technology into pedagogical practice.

This was also identified within management-level sources and by teachers as a driver for BL adoption: if a person was already using a wide range of ICT in their private life, they would be less scared of the BL tools and would be more likely to embed BL into their teaching practice. However, those who were not confident users of technology at home would be less confident with blended learning. For example, Terri stated:

> "I personally stick to what I feel comfortable with. Personally, in terms of training I could look into it a little bit more. I don't know if that's because I pull

> back a little bit negatively because I might not need to use it all in my teaching, so that's why I haven't put myself forward. I feel that I am comfortable using YouTube, Facebook and Google, but that might be because of the nature of what I do."

Two different teachers suggested that some people simply enjoy playing around with technology, so they are happy to put more time into developing BL resources. This was particularly the case where the subject taught lent itself to the use of technology (e.g. Music, Computer Science).

Some expressed concern about the impact on the students when the teacher was unable to support them sufficiently in their own upskilling on the product. Sally discussed a situation in her department were a group of Level 2 students were unable to use blogs assigned to them to display their coursework:

> "A lot of those students weren't confident with it, didn't know how to use it themselves and it actually caused more stress than it was worth. In the end it was like "Ok, abandon the blogs and hand it in on paper" because they were struggling. So I think sometimes a drawback is that if the students aren't as up to speed on it as we would like – and if we're not confident enough to teach it to them properly then it can be more time-consuming for us. If we want them to do the work and we have to teach them not only how to do the work but also how to use the technology to do the work, then it's more time consuming for us, isn't it?"

This point was also raised within policy maker sources, with a JISC report suggesting that lecturers often overestimated students' confidence in technology (JISC, August 2015). This is in direct contrast to some of our other teachers who had suggested that the student requirement for learning through technology had driven their uptake of BL in the classroom.

Only one teacher regarded himself as being too close to retirement to bother changing his pedagogical practice, stating:

> "Much as I would like to use (BL tools), I can't really be bothered, and it would be a very steep learning curve for me to go down for what effectively is another two years in the game, so why am I bothering."

One final point in relation to BL barriers related to fear of change was the concern that trying to use technologies where the students knew more about the technology than the teacher may result in a loss of teacher authority in the class, and a subsequent loss of control from the teacher. This was mentioned by two teachers who were classed as "laggards" but was not found elsewhere in the sources reviewed.

4.7.2 Teacher Engagement

Teacher engagement was coded where the discussion focussed on how BL can encourage teachers to become more engaged with their subject matter, or with pedagogical practice.

Although none of the policy maker sources reviewed discussed teacher engagement, a quarter of management sources and half of teachers interviewed discussed the use of BL as a tool to engage them in their own teaching practice.

Examples included the ability to use BL to develop their own knowledge and keep themselves up to date with their subject. This was mentioned by Science, Music Technology and IT teachers and managers, who cited tools like free online courses and e-journals used within their department for this purpose.

Some teachers suggested that BL tools provided a way for them to keep up with changes in learning practices, and pedagogical techniques. For example, three teachers gave examples of ways that their students had taught them new ways of taking notes and completing traditional tasks using their mobile phones, such as maths applications and graphics packages which they were now using as everyday practice in their classes. Others had formed collaborative groups on the internet and were able to explore and develop BL tools specific to their subject matter based on the recommendations of teachers and other subject matter experts working at other institutions. Sue commented:

> "Most of the things I use have been self-taught. I subscribe to a lot of subject-specific groups and get a lot of ideas from them. For example, I subscribe to a Performing Arts teaching group and have learned a lot about good resources and eLearning teaching practice from that. I also have connections to the RSC and British Library, which are excellent sources of information."

Three teachers commented that the use of BL technologies in some instances not only engaged the learners but reinvigorated their own interest in what might otherwise have been quite a dry theoretical subject. Examples provided were the use of virtual reality textbooks to illustrate musculature and circulatory systems, 360 degree sites to explore backstage at the Royal Ballet and sound recording applications which could replicate the acoustics of well-known music venues.

4.8 Summary

This chapter summarized the findings of research undertaken with the following aims:

- Discover the drivers and barriers to adoption of BL within the College from three levels: policy makers, managers and teachers.
- Identify where the drivers and barriers differ between each level and the impact this has on implementation.

It collated the findings from the document analysis and interviews, sorting them into decision-making levels of policy makers, managers and teachers.

It then compared the analysis on various drivers and barriers to BL adoption as they relate to the themes of students, teachers and the College as a whole, taken from the perspective of each of the decision-making levels outlined above.

Teacher-themed BL enablers and barriers received the most focus from managers and teachers, with College themes receiving the most focus from policy makers. Each theme was broken into various topics, compared across decision-making levels and detailed comments from sources were provided

In the next chapter we will discuss the findings in relation to existing literature, reinforcing any existing knowledge and identifying any new knowledge that has arisen because of this research.

5 Discussion

5.1 Introduction

This chapter aims to answer the following questions in the context of the College in the case study:

1. What are the perceived impacts that BL adoption will have on the College?
2. Are the abovementioned impacts perceived as barriers or drivers to the adoption of BL in the College?
3. Do the perceptions regarding the barriers and drivers differ between policy makers, managers and teachers? – and, if so, what possible effects might this have on implementation?

Analysis of the collected data outlined in the Findings chapter suggests there were four key perceived impacts that BL adoption would have on the College. These were as follows:

1. BL would affect the effectiveness and efficiency of the College.
2. BL would have a positive impact on collaborative practices within the College.
3. BL would impact student inclusion, engagement and achievement.
4. BL would affect teachers' engagement and confidence in their pedagogical practice.

The remainder of this chapter discusses each perceived impact in detail, assessing whether the impacts are perceived as barriers or drivers to the adoption of BL in the College, and how perceptions differ between stakeholder level.

5.2 BL Affects Effectiveness and Efficiency

The AoC (2014) highlighted the benefits that BL could provide within FE Colleges, especially when the same classes are delivered to many different students. Within their discussion, the AoC divided these benefits into learning efficiencies and organisational efficiencies. In this section we will discuss effectiveness and efficiency from the perspective of the organisation. Learning efficiencies are discussed in section 5.4.

Across all three organisational levels in this study, BL was perceived to have a positive impact on the College's effectiveness and efficiency. However, perceptions differed in terms of aspects of BL that may be drivers or barriers to adoption.

There were six issues identified in this study relating to the impacts of BL on College effectiveness and efficiency which would be regarded as drivers or barriers to BL adoption. These were as follows:

- Funding and Policy as a barrier.
- Leadership as a barrier.
- Scope and Quality of Provision as a driver
- Measurement and Reporting as both a driver and a barrier.
- Time and Cost as both a driver and a barrier.

These are discussed in detail below.

5.2.1 Funding and Policy is a Barrier

Throughout the Introduction and Literature Review chapters I discussed the importance of the College's context in terms of political and economic impacts on the implementation of BL in the College, especially in relation to the importance of government policy and the funding to support BL implementation. Fullan (2013), for example, provides many examples of policy-driven implementations of BL in national school systems which have resulted in improved education on a state or national level. However, in each of the examples Fullan (ibid) provides, the goals of the program are clear and well communicated and appear to be well funded. However, as indicated by

the Nuffield Foundation (Belfield et al, 2018), this is not necessarily the case in English FE, and it did not appear to be the situation at the College.

Frequent, ongoing policy change had created uncertainty at all levels within the College, with teachers expressing concern about meeting arbitrary mandatory minimum BL percentages in their curriculum delivery, managers worrying about potential legal infringements, and the senior management team expressing concern at the sheer volume of change they had to assess and implement. Little appears to have changed since the Lingfield review on professionalism in FE was published in 2012 (Lingfield, 2012), when it was suggested that there were too many conflicting and complex policy and funding controls on FE, creating a climate of fearfulness amongst managers and teachers, and removing their capacity for agency and self-improvement.

In an attempt to improve focus on BL strategy within the College, in 2016 the College's BL policy and strategy were separated from the overarching IT strategy, which in turn formed part of the overall College policy. This appeared to go against Government advice, which suggested that BL should be both a separate strategy and part of a larger College-wide resource and implementation strategy. It also appeared to have had the effect of diminishing BL as a priority in the College. The separate policy and strategy for the use of eLearning and BL in the College had been created and communicated to the senior management team but had not been communicated down through to the school and curriculum managers or the teachers at all. This lack of clear strategy from both policy makers and the senior management team, and poor formal structures within the College to support and drive the adoption of blended learning, had formed a critical barrier to BL adoption across the College.

Previous research by Hills and Overton (2010) suggest this confusion over policy is a common reason why BL implementations fail, and Ewart Keep (in Gallacher and Reeve, 2018) suggests that considerable effort must be taken to ensure appropriate support is in place to overcome existing FE policy issues and guide the change. However, although many policy maker sources highlighted the support they were offering to FE Colleges to implement BL programmes, from the interviews it appeared that very little of this had filtered down to the management team and none at all to the teachers. Also, when the teachers did make extensive use of technology, the government agencies did not necessarily have the skills or capacity to cope. Examples provided

included Ofsted inspectors who did not refer to technology-based learning in their observations, and BTEC moderators refusing to accept materials submitted online. As found in a study by Mather and Seifert (2014), these types of events had increased the perceived risk of adopting BL not only for those who had experienced them directly, but for others in the department who had heard about it, thus creating further barriers to implementation.

5.2.2 Lack of Leadership as a Barrier

Alkharang's (2014) thesis found that a lack of management knowledge and awareness of BL was a major barrier to BL adoption and this was also the case at the College. Issues uncovered at the College fit with factors suggested by both Alkharang (ibid) and Hills and Overton (2010). For example, it was unclear to both managers and teachers how embedding BL into the curriculum would help support the College's goals; there was very little formal sponsorship of BL from the senior management team or governors; internal marketing of BL was poor; and many managers had a poor understanding of BL capabilities.

Although policy makers identified a range of programs to improve management leadership of BL implementation, none of these had been taken up within the College and, as a result, there is very little sponsorship of BL adoption from a top-down perspective. Managers suggested they struggled to prioritize BL implementation over other initiatives, particularly those pertaining to literacy and numeracy which had financial implications for the College.

Earlier studies suggest that a lack of sponsorship and poor communication from the management team creates confusion and increased perceived risk for those on the ground (Stoloski, 2014; Mather and Seifert, 2014; Lambert, 2011; Wright and Nigel, 2011; Lawson and Sorenson, 2010) and this appeared to be the case at the College, where teachers expressed a desire for more direction from leaders in their use of technology in the classroom, and commented on a lack of clarity regarding measurement and monitoring of BL use.

Most of the departments who were prolific users of BL had, as identified in an earlier study of other institutions by Thomas and Willcoxon (1998), taken on their own bottom-up ownership of BL implementation, with teachers who are natural innovators

or “early adopters” acting as recruiters for change and building an innovative team around them. Members of these College departments discussed sharing ideas in weekly meetings and regular sharing of resources between team members. Those who were against the use of BL were identified by the team members and encouraged through individual support and peer pressure. Conversely, departments which were weak in their use of BL tended to do very little sharing of best practices and resources.

In contrast with the findings of Govindji and Lindley (2008) the nature of the department in terms of innovation was not directly related to the manager. Some of the departments in the College who were strong users of BL had managers with poor BL skills. However, teachers within the team had driven BL adoption and encouraged their manager to take an interest.

This bottom-up change process means there are pockets of excellent practice within the College, but no overarching strategy nor any visible means of measuring the success of BL adoption within the College as a whole. To drive BL adoption across the College as a whole, more needs to be done to develop a clear vision, organisation-wide implementation process and methods of measuring progress.

5.2.3 Scope and Quality of Provision is a Driver

Keep (in Gallacher and Reeve, 2018) identifies the issues that marketisation of education has created for FE Colleges, who now compete with schools and universities for a dwindling student population. This was mentioned by managers and teachers in this study, who were working on local employer, school and university liaison programmes which included elements of BL to facilitate communication and to encourage students to take up a place at the College.

In terms of scope of provision, policy makers were aligned with existing literature such as Miller and Ives (2020) in suggesting that BL could widen the target market by expanding the demographics and geographical location of the students (for example encouraging students who lived outside of the county, or older students, to attend by offering out-of-class support) and allowing the College to offer online courses that were outside of the scope of existing teachers' specialisms. At the time of the study, there was an active marketing campaign to encourage students from outside of the region to attend the College, but there was little support from either managers or teachers to offer purely online courses.

Greatbatch and Tate (2018) highlighted the variability of teaching quality in FE, and whilst it appeared to be recognised by some policy makers that BL could contribute to improving the quality of FE provision, there was a lack of clarity as to how this could exactly be achieved. Some qualification providers had used BL tools to standardise delivery, including online portfolios and lessons, which was seen as a benefit by those in the College who used it. Also, the Minister for Education at the time, Matthew Hancock (2014) suggested that BL could support closer links to local businesses, which would help provide an education that was vocationally specific and included real-life problem solving, thus supporting learners into work. However, teachers and managers tended to focus on the impacts it would have on student learning rather than improving quality per se. These are discussed in detail later in this chapter.

5.2.4 Measurement and Reporting is a Driver

As discussed in Section 2.5 of this document, measurement and reporting are valuable, as they allow us to identify and celebrate the progress of those who are doing well, (Rogers, 1995) and identify and support those who are struggling (Foucault, 1977). This applies for both students as part of their learning, and College employees as part of the pedagogical change process required to implement BL.

Few policy maker sources discussed measurement and reporting, but where they did, they identified it as a strong driver for BL adoption, pointing out that identifying students who were struggling at an early stage allowed remedial measures to be put in place quickly, improving student achievement.

There was a much stronger focus on the impacts of BL on measurement and reporting from managers and teachers. Most managers and teachers were able to easily identify ways that BL tools could help improve the measurement of student progress and achievement within the College, focusing on the before and after measurement of outcomes highlighted by Hosack, Lim and Vogt (2012) and discussed in section 2.5. They cited Google Classroom, Moodle quizzes and Kahoot! as examples of BL tools that could facilitate progress measurement and provide instant feedback to both the teacher and the students on progress. However, every teacher had their own student tracking process and many managers were unclear as to exactly what was happening in terms of overall student progress at any given time.

This haphazard approach to measuring student progress and achievement was of concern, considering the College was expecting an Ofsted Inspection, had a QAA inspection earlier in the year, and was in the process of undergoing an Area Review assessment. This volume of external measurement reinforces an issue highlighted in the Lingfield Report (2012) into professionalism in FE, which commented that the extensive measurement and assessment that took place within FE Colleges in England had a negative effect on teaching practice. It also may go some way to explaining why so many of those interviewed wished to discuss measurement of student progress, attendance and embedding of English and Maths into the curriculum in order to demonstrate that the College was meeting key review targets.

Greatbatch and Tate (2018) indicate that this external measurement is often seen by FE teachers as a way to fulfil performance management targets rather than to support teacher development, and this may perhaps explain why teachers who were less frequent users of BL tended to regard the use of technology to improve measurement and reporting as a barrier to its adoption. For example, one teacher suggested it would increase the ways that management could monitor him in his work in a "Big Brother" way, whilst another thought it would increase the amount of time that would have to be spent on administrative tasks such as grade tracking. Since this study was completed, I understand that the ad-hoc, disjointed student tracking systems have been replaced with a College-wide online student tracking system, allowing students, teachers and managers to review progress. It would be interesting to revisit the College to see how this has affected both BL enthusiasts and those who are less frequent BL users.

The other aspect of measurement and reporting discussed by the sources related to the measurement and reporting of teachers' use of BL as part of their pedagogical practice.

In many of the management interviews it appeared that managers had very little idea of what was happening in classrooms in terms of BL. Some referred to classroom observations they had attended but were unable to identify what was occurring across the College as a whole. This relates closely to findings in a study by Doppler and Lauterberg (2013), who discussed dilution of relevant information from top to bottom within an organisation (where for example teachers may be uncertain of how to implement policy), but also from the bottom to the top, where managers are unsure what teachers are doing. Both teachers and managers suggested this was a weakness within the College, and highlighted programs which had been effective in the past, such as peer observations and IT Heroes in each staffroom, to facilitate identification and communication of best practices.

The findings of this study build on those of MacDonald and Thompson (2005), who discussed the need to assess blended learning in terms of its structures, delivery and content in order to identify its effectiveness. Most teachers and managers acknowledged there was measurement of BL use in classes within the College, but many were unsure about <u>what</u> was being measured, and some expressed concern that

the measures did not clearly identify effective practice. Their comments related closely to the identifiers of successful blended learning I discussed in section 2.5: many were concerned that the focus was on easily measured statistics such as student attendance and achievement, at the expense of checking whether teachers were using BL to create the "irresistibly engaging" and personalized learning experience which encourages students to take ownership of their own learning (Fullan, 2013). This supports research by Van Aken (1996), who suggested that different stakeholders may have different expectations of what "success" looks like. As suggested by MacDonald and Thompson (ibid), a more rounded approach to measurement is required which accounts for delivery, content and support.

Policy makers do not appear to have a clear, mandated strategy for the embedding of BL within FE Colleges and have not communicated a unified, clear vision to managers. Most of the senior management team within the College are no longer teaching and do not have experience in the practical application of BL tools in the classroom, so are unable to devise this vision for themselves. Therefore, implementation of BL practices has fallen to the natural innovators within the teaching teams (Zhu, 2015).

As discussed in section 2.5, there is a need to clearly establish and communicate the goals of BL to all employees of the college, to allow for better benchmarking and to allow the management team to more clearly track the progress of BL implementation across the College. According to Rogers (1995) and Lewin (1947), providing targets against which success could be measured is a vital part of the change process, helping with the "unfreeze" part of pedagogical change, by showing teachers how learning could improve with the adoption of BL, then providing momentum when teachers and managers celebrate wins by achieving those targets.

More needs to be done within the College to look at ways to share practice and measure and communicate effective BL use, for example through semesterly student surveys and regular emails.

5.2.5 Time and Cost of Development and Delivery is both a Driver and a Barrier

Emily Armstrong (2019)'s research into the motivators for BL in FE discovered that time and cost was a conundrum when it came to BL implementation, and this study found the same. Much of the existing literature regarding blended learning implementations cites the time taken to learn, develop and deliver blended learning as one of the key barriers to its use (see Singh and Hardaker, 2014; Yap et al, 2015). However, the findings of this study matched those of Anderson (2012) and Armstrong (ibid), who found that time and cost were regarded as a barrier to blended learning implementation primarily by those who were not confident users of blended learning. In particular, a lack of hardware availability in some classrooms, or faulty SmartBoards, caused the most concern to these individuals.

Some were also concerned about the time and costs to students in BL implementation, and provided examples where students did not have access to the internet at home, or they did not have the underlying skills required to use the BL tools. In these examples, the time involved in bringing the students up to speed on the technology was seen as a barrier to its use.

However, as Armstrong (2019) and Anderson (2012) also found, those who were frequent users of BL seemed less fazed by these issues, suggesting there were processes in place within the College to support students in their use of technology. As a study by Fee (2009) also uncovered, those who were prolific users of blended learning cited the time and cost saved by using BL as one of the key drivers for its use, particularly in terms of easy monitoring of student progress, fast feedback, better organisation of resources and marking, and less paper (making a BL approach more environmentally friendly).

Whilst the relatively low focus on time and cost within the findings is surprising, this difference may be due to context. The FE College under study for this thesis had a major rebuild programme, with the main campus building opening in 2012. The IT Department had also made extensive use of national grants to ensure IT equipment and software was kept up to date. Therefore, it may be that due to these factors, cost in relation to equipment and software was not seen as a major issue.

Although Porter and Graham (2015) cited a lack of appropriate resources as a barrier to blended learning in their study, this was rarely mentioned in the current study. Instead, as found in a recent study by de los Arcos (2016), managers and teachers described using free online resource banks, subscribing to subject forums which shared resources, and using resources provided by the exam boards. However, some participants commented that the quality and quantity of these publicly-available resources varied considerably depending on the subject area. For example, there were a lot of resources for STEM subjects, but not so many for Childcare. Henderson et al (2017) point out the difficulties encountered when publicly available resources don't fit the needs of the students or the curriculum, and some managers and teachers interviewed were concerned about the use of resources that were too generic. Some of the teachers interviewed acknowledged this, but said they were able to amend resources to suit the needs of their students, often using free online tools. In some cases, teachers had paid for their own resource development tools, but these tended to be quite low cost.

Although policy makers mentioned the time and cost of BL in depth in a few sources, it received far less attention than I would expect, considering one of the four goals publicly listed on the DfE website is "making every pound of our funding count" (Great Britain, Department for Education, 2019). The primary focus tended to relate to the need for collaboration between institutions on BL implementations to share the time and cost, although some sources also recognised the time and cost in upskilling teachers and students. For example, policy makers outlined many ways they were providing resources to support the needs of teachers and managers in BL implementation. However, very few of these resources were being used on the ground in the College. Instead, managers focused on ways to upskill teachers into providing their own resources.

Of all the impacts discussed, resourcing BL implementation was one where there was the biggest discrepancy between the stakeholder levels as to perceived impacts as drivers or barriers of BL implementation.

Policy Makers were focused on a top-down, resource-supply model, whereby they were providing tools to support delivery. However, teachers were already sharing resources in online resource banks and using resources provided by exam boards and

publishers and instead expressed a desire to learn more about pedagogical best practices with blended learning through peer observations and subject-matter experts. Managers had little experience of the resource banks and were concerned about giving teachers the time and support to create their own resources, whereas it may have been more beneficial to provide teachers with training on where to find new resources, and how to adapt their pedagogical practice to make better use of these tools.

5.3 BL is Closely Tied to Collaboration

In the literature review, we discussed the importance of communication channels and a strong social system to support the adoption of innovation, as indicated in Rogers' (1995) Diffusion of Innovation model, and the findings reiterated the importance of both formal and informal communication and social structures to facilitate adoption of blended learning. Conversely, BL tools also facilitated collaboration. These relationships were considered from three aspects: collaboration between the College and the wider community, collaboration between teachers and their peers, and student collaboration. Each of these is discussed in detail below.

5.3.1 Collaboration between the College and the wider community is a driver

Beresford and Beresford (2010) identified a lack of readiness and the resources required for a change within FE institutions as a potential barrier for change and suggested this was partly due FE Colleges' isolation from the wider academic community. Other researchers (e.g. FERSG, 2012) suggested that this isolation had been caused by increased marketisation of education, with schools, universities and FE Colleges regarding each other as competitors rather than potential collaborators.

The findings of this thesis indicate that this lack of collaboration is at the forefront of policy makers' minds at present and there is considerable energy being put into looking at ways to improve the situation. Competition between educational institutions for students means that educational institutions are unwilling to share financial information or in many cases BL best practices with each other. However, findings also suggest that where institutions, technical experts and employers work

together to develop and implement blended learning, such as in the College's Prevent programme, economies of scale were achieved, saving both time and money. This reinforces existing research by Kong (2019) and Sibley (2013), who both identify the benefits of developing BL through collaboration with the right partners. Elaborating on existing literature, the "right partners" identified by policy makers include other educational institutions, technology businesses, employers and community groups.

From a different perspective, findings suggested that BL can drive collaboration between organisations, employers and the community. For example, through online simulations, social media and shared resources. This built upon discussions by both Fullan (2013) and Jung and Kim (2006) who discussed the impacts of technology-based learning on collaboration. Although many examples were provided by teachers and managers within the College of using BL to forge links with external entities, it was less common to find examples in the existing literature, perhaps because much of it is based on relatively new technologies, and more research into the potential for BL to improve collaboration between FE Colleges, other organisations and their community is required.

Teachers at the College tended to focus on BL as a function of day to day practice rather than promoting the wider needs of the College. As a result, organisation-wide strategies such as collaboration between institutions was regarded as something that was dealt with by management and policy makers. For example, there were comments by some teachers on their use of the local University's VLE to support their HE students, and Kloodle to link with local employers, but these were perceived as top-down implementations, handed to them by managers to implement with their students.

There is a substantial volume of research into the impacts of such a top-down approach on teachers' agency (e.g. Bathmaker, 2013; Lingfield, 2012; Au, 2011; Gleeson, 2007) and the perceived risk from those who are required to implement the change. This was evident in the interviews, where some participants were sceptical about the intentions behind institution-wide collaborations at the College, particularly where they felt that decisions were made by people who were less informed about what was happening "on the ground" than those who were implementing the BL

collaborations. This resonated with previous studies such as Billett (2013) and Boyd (1979).

There was obviously a lot of collaborative work going on between departments, local employers, subject-matter experts and other institutions, but often this was on an ad-hoc basis and senior managers were not made aware.

5.3.2 Collaboration with Colleagues drives BL

Scott's (2016) research suggested that collaboration and discussion with colleagues is a strong driver for pedagogical change, and this was a key finding within this study, where it became apparent that the biggest driver for BL adoption within departments was the internal culture of sharing within the department. As previously discussed in Rogers' (1995) Diffusion of Innovation model, collaboration on BL implementation tended to be driven by well-connected innovators and early adopters of blended learning. Contrary to an earlier study by Govindji and Linley (2008) the innovators and early adopters appeared to have a strong influence on the culture of collaboration and BL use within the department even where the manager was not an advocate of a BL approach.

This link between peer collaboration and BL use conflicted with teachers' perceptions within the interviews: there was a general belief that BL adoption was more prevalent in departments which "naturally leaned" towards the use of technology, such as STEM subjects. To illustrate, there was more BL embedded into the practice of most of the performing arts classes than in the classes of some STEM departments at the time of this research. Many of those interviewed within one STEM department had very little knowledge, and some expressed little interest, in the classroom practices of others and some were very unwilling to share any resources they had created. This made it particularly difficult for those who were new to the department, who instead turned to online Communities of Practice such as subject-specific teacher forums, for BL implementation support.

Rogers (ibid) identified the importance of strong communication structures and a social system that supports innovative change, and these factors were in evidence in departments which were making good use of BL. For example, the performing arts

department had a shared online resource bank and a standing item on their weekly meeting agenda regarding improved teaching practices. In other areas, teachers discussed the importance of being able to complete training with their subject peers (Finlayson, 2006), whilst others identified where teachers in their staff room had shared "small wins" they had achieved through BL tool use, encouraging their teaching peers to try similar techniques. By demonstrating their own use, and having strong trust-based relationships within the teams, innovators and early adopters were able to reduce the perceived risk of implementing change (Zhu, 2015) and encourage those who were more change-averse to adopt BL practices (Amabile and Kramer, 2011).

Many of the early adopters in this study enthused about the opportunities that BL tools gave them to expand their own subject knowledge and pedagogical practice. For example, IT teachers joined chat rooms with IT teachers from other institutions to share ideas for best delivery of certain topics and some belonged to subject-matter forums such as industry digital security innovation groups. Performing Arts teachers had regular communication with local theatres and actor communities through social media. Their comments brought to mind Lev Vygotsky's Social Development Theory (Vygotsky, 1980), (although his theory related to child development rather than teachers' adoption of blended learning). The teacher's community, both within and outside of the College, plays a vital role in helping them make meaning of what is required in the successful implementation of BL. By interacting with peers, and in online forums, teachers can co-construct their knowledge, with innovators and early adopters acting as "knowledgeable others", who may model the BL practices for them to facilitate their learning. Vygotsky discusses culturally-determined tools of intellectual adaptation and these appear to be subject-specific and apply within departments, with each department having their own preferred practices.

As a final point in relation to collaboration, Gleeson et al (2015) discussed the issues faced by part time College lecturers, who may not be able to attend regular staff meetings or training. Some of those teachers who were interviewed worked part-time for the College and part time in other roles, such as teaching at other institutions, or working in their subject specialism. These teachers suggested that, rather than being a hindrance, this gave them an opportunity to experience BL in different contexts and encouraged the spread of ideas and good practice between institutions.

5.3.3 Communication between Students, Teachers and Subject Matter Experts is a driver

Duckworth and Smith (2018) suggest that communication between teachers and students is an important aspect of the culture of FE, which is based on equality and shared learning, and over three quarters of the teachers interviewed for this thesis discussed this. Research suggests that BL tools can lead to improved communication between teachers and learners, and this may be a major driver for BL adoption (Valk et al, 2010; Garrison, 2003), although this was rarely discussed within the policy maker sources.

In some departments, such as Engineering and Apprenticeships, collaborative tools were provided as a standard part of the course by the exam board. However, most departments had identified and developed their own tools. Social media, blogs and chatrooms were encouraged by many of the teachers interviewed as a way of improving communication between students, teachers and subject matter experts in the wider community, although some teachers and managers expressed concern about bullying and safeguarding issues that could arise. Contrary to concerns expressed by teachers in other research (e.g. Hung and Yuen, 2010) those interviewed who were using these approaches suggested that using technologies the students were already familiar with (such as social media) improved their likelihood of using them for education purposes and, although Moule et al (2011) suggested it was not necessarily the case they would be able to convert technology from a social tool into a learning tool, most students were able to adapt to the formal working relationships required within the format.

Where students were less forthcoming in class, they were able to build relationships with their classmates online, as found by Cooke (2016) and Yap (2015) and in my role within the College I had seen how these online groups had continued to be used by students long after they had graduated from the College.

Collaborative tools such as Google Classroom were highlighted by some teachers and managers interviewed as driving improvements in communication between students and teachers, as students were able to ask questions of each other and their teachers

through online forums, work together collaboratively on resources and discuss work remotely with their teachers. Managers and teachers also discussed the improvements in timely feedback which could be implemented through BL tools such as online quizzes and TurnItIn. Additional benefits, discussed elsewhere in this chapter, included improved organisation of assignments, options to deliver feedback in a format that suited the learner (including video feedback for those with text-specific learning issues) and grade tracking, to quickly identify those who were struggling and put timely interventions in place.

However, some of the less enthusiastic adopters of BL were concerned that relying on online communication may remove opportunities for face to face group communication important for developing social skills. This point was raised in earlier research by Newton and Ellis (2007) who identified the importance of careful BL design and a balance of communication methods, and Nedeva et al (2010) agree that heavily individualised learning can create a sense of isolation for learners.

5.3.4 Pedagogy, BL and Teacher/Student Collaboration are interdependent

As an insider researcher I had in the past received feedback from students, teachers and managers about the pedagogical practices of those teachers (and some managers) interviewed. This suggested that, as discussed by Abusalim et al (2020) and Dassa and Vaughan (2018), those teachers who took a very collaborative, student-focused pedagogical approach tended to view the adoption of BL as less risky than those with a more traditional pedagogical approach, who regarded themselves as gatekeepers of knowledge for their students. (This gatekeeper stance often appeared to spread into their interactions with their peers, and they were unwilling to share resources with other teachers.)

My own findings were similar to those of Zhu (2015), who found that those who positioned themselves as the expert in the class expressed concern as to what would happen in class if they were seen by their students as being less proficient users of the BL technologies than their students. In the current study, this was often cited by laggards as a major barrier to BL adoption. In contrast, those who had a more

student-focused, collaborative pedagogy commented on situations where students had helped them learn a technology as a positive thing. This closely aligns with a quote from Michael Fullan's book Stratosphere, where he found, in relation to those who were most successful in the use of BL:

> "it was precisely because they [teachers] focused on pedagogy, were comfortable with not being the tech expert in the room, had strong classroom management skills and saw online pitfalls as teachable moments" (Fullan, 2013, p38).

This would suggest that an holistic approach to driving active learning through pedagogical practice would reduce the perceived risk of BL adoption, as teachers are encouraged to work collaboratively with students to introduce technology-based tools into their lessons.

5.4 BL affects Student Engagement and Achievement

Relating back to Rogers' (1995) Diffusion of Innovation model, it is important not only for stakeholders at all levels involved in the innovation to understand how BL will fit into their existing practice but also to identify the potential benefits of BL as part of the "perceived attributes of the innovation". Fullan (2013, p75) suggests one of the key benefits of successful BL is that students' learning experiences are "irresistibly engaging" and personalised, creating deeper learning and a passion for the subject. Pierce (2017) agrees, indicating that a measure of successful BL is where students take ownership of their learning experience and have more choice than in traditional lessons. This engagement, flexibility and subsequent improved achievement were identified as impacts of BL by all levels of stakeholder in this study, but there were significant differences on the perceptions of each by level.

5.4.1 Inclusion is a driver for BL Adoption

Policy makers often focused on the potential for BL to support inclusivity in terms of the College's legal duty, and social mobility, including reference to the Equality Act (2010) and the UN Convention on Disability Rights, in terms of providing resources and delivery techniques to support those who had learning difficulties, or those who could

not access the College regularly due to health or family commitments. However, they spent very little time discussing student engagement. Conversely, managers and teachers tended to focus on inclusion as a social duty, and regarded it as part of the College ethos, as noted by Duckworth and Smith (2018) and Otty (2017). Some identified a strong link between student engagement and achievement that could be improved using BL and suggested engagement could be improved through both the mode of delivery, and the content.

5.4.2 Opportunities for Improved Engagement and Achievement drive BL Adoption

The year the data was collected the College had a QAA inspection for their HE provision, an upcoming Ofsted inspection and an Area Review. This meant there was a strong focus on improving measurably effective pedagogical practice at the College and it was perhaps unsurprising that teachers and managers frequently discussed improved student engagement and achievement as drivers for BL adoption at this time. In line with an earlier study by Armstrong (2019), findings suggested that participants perceived that engagement could be improved through both the mode of delivery and the content. However, there were some caveats to this, which are discussed below.

Previous studies had found that amending resources to suit student learning styles gave better outcomes (McNutt and Brennan, 2005; Demian and Morris, 2015), and this was frequently discussed by both teachers and managers. Some recorded classes and others added resources covering the same topics but in different formats (e.g. video, audio or text) to account for those who had different learning styles, and particularly those who had text-based learning issues or for whom English was not their first language (see also Tan, 2015). This had four key benefits. Students could access the resources at a time, place and speed that suited them, accessing the resources in "bitesize chunks" to make them easier to digest (Anderson and McCormick, 2005). The resources allowed for revision at a later date, and provided an opportunity for anyone who had missed the lesson to catch up. However, they also reassured those that were struggling within the lesson that they would have an opportunity to review the resources and contact the teacher with issues in their own time. This meant that a

reasonable pace could be maintained in the lessons without leaving any students behind. More immediate, multi-modal feedback and organised progress tracking through BL tools also helped teachers and managers identify those who were struggling with the content, and quickly put in place remedial support for students. Teachers and managers suggested this helped improve student retention and achievement.

5.4.3 Potential for Student Exclusion from BL is a Barrier

As in previous research (JISC, 2015; Moule et al, 2011), sources in this study suggested that although there were sometimes issues where students did not have access to IT outside of classes, which caused them to struggle to learn the BL technologies and access it outside of classes, this was very rare. This aligns with a recent report from Ofcom (2018), which suggested that most people now have access to mobile phones, computers and/or the internet in some form, with 96% of UK households having mobile phones and 87% having internet access. It also may explain why sources reported that most students were not only familiar with the technologies but expected it to be used in their classes. Contrary to previous findings by Cornelius and Gordon (2008), teachers suggested most students tended to make good use of the resources supplied, for example by using long bus journeys to College to access online resources using their mobile phones. However, as suggested by three of the teachers (and in earlier studies by Beetham and Sharpe, 2013; Moule et al, 2011 and Finlayson et al, 2010), it is important that students are familiar with the learning technologies, and motivated to use them, otherwise BL can be a frustrating and time-consuming process.

5.4.4 Creating the Right Balance for BL Can Be A Barrier

To maintain engagement and motivation, many teachers tried to include resources which emulated real-life scenarios or, as discussed above, linked to global subject matter experts, potential employers and other students. According to Fleming (2013) this encourages students to become more emotionally and actively involved in their subject, and Deschacht and Goeman (2015) found where such tools were used in lessons there was improved student attendance, retention and achievement. However, there was some concern that in some instances the BL tools that teachers used were too passive, such as tedious PowerPoints, overuse of YouTube videos and the use of the SmartBoard as a whiteboard rather than an interactive tool

This concern was also discussed in a paper by Mayes and Freitas (2004), who suggested that BL should be designed in such a way that students should be able to demonstrate their understanding. This is not possible through the one-way tools such as PowerPoints and videos, although they can help support the initial stages of the learning process. Instead, learning tools should encourage experimentation, support reflection and work within the social space, including face to face classes, to encourage deeper learning.

Many teachers and managers acknowledged that creating the right blend of face-to-face delivery and resource provision was a difficult balancing act. For example, if a student did not have a smartphone, but was required to use a smartphone to access resources, this would exclude them from their learning (see also Muhammad Din and Jabeen, 2014; Oudeweetering and Agirdag, 2018). It was also important that time was allocated in lessons to ensure that all students understood how to use their hardware and software tools to complete the learning tasks. In terms of the volume and nature of the resources, sources suggested there was a fine balance between providing enough resources online for students to catch up on work they have missed and providing so many resources that the student no longer feels the need to attend classes (see also Boyle et al, 2008). Others were worried that where teachers provided students with exactly what they required to complete the curriculum, and no wider reading, students were unable to develop critical thinking skills and had lost the ability to work autonomously.

It appears that more work is required in the College to support students in their use of educational technologies, and more research on the balance between resources and face-to-face learning would help clarify some of the issues outlined above. Northampton University could prove a useful collaboration partner to progress on these points, as they have recently implemented a whole-institution blended learning programme. An interim report by the university (Palmer et al, 2017) provides practical advice on preparing students to take ownership of their learning, and designing active, engaging resources. Disseminating this to teachers and managers within the College would provide them with a core understanding of the learning theory behind student engagement through BL, and some practical tips on implementation.

5.5 BL affects Teacher Confidence and Engagement

In the literature review I discussed Lewin's (1947) three step change process. Within this process, Lewin (ibid) suggests that the "unfreeze" stage of the BL implementation is perhaps the most difficult part. It involves encouraging those involved to move away from the tried-and-tested pedagogy with which they are comfortable and confident, to adopt new, innovative practices which expose them to risks of failure in front of their students and peers.

Lewin (1947) and Fullan (1991 and 2013) suggest that one of the ways to encourage this move is to convince those involved of the need to change, by outlining where existing practices are no longer enough, and how BL can benefit everyone involved. Once this is done it is important to ensure that those involved in the change are aware of the appropriate resources and support are in place to implement the change.

Readiness to adopt BL depends on the confidence of those involved and the perceived potential benefits of moving to a new pedagogy. These are discussed in detail below.

5.5.1 The level of teacher and manager confidence can drive or hinder BL adoption

The impact that teacher confidence has on the adoption of BL is a common theme in existing literature (e.g. Dassa and Vaughan, 2018; Mwakyusa and Mwalyagile, 2016), and teacher confidence was the third most-discussed topic in the teacher interviews after measurement and collaboration. The findings of this study agree with Anderson's (2012) findings regarding the relationship between the willingness of teachers to adapt their teaching practices in general to improve student learning, and their confidence in the adoption of blended learning. It appears that where teachers are prepared to reflect on their pedagogical practice and research and experiment with new ways to improve their teaching, they are more likely to adopt BL as part of their practice. Those who were confident users of technology in their home lives also tended to be more open to adopting BL, although this was not always the case.

Amongst those who were less confident users, there appeared to be a fear of loss of control in relation to BL adoption. This came from three different perspectives:

- a fear of management gaining more control through improved monitoring capabilities provided by BL tools;
- a fear of tools not working, meaning that lessons could not continue;
- a fear of students knowing more about the technologies than the teacher, reducing the view of the teacher as the expert in the class.

Although improved opportunities for training and practice were identified by Policy Makers and management sources as important ways of overcoming this fear, it appeared from the findings that teachers found that collaborating with peers in an environment they trusted was a preferred solution.

Trust was highlighted as an important aspect of successful BL implementation. Osborne and Brown's (2013) research indicated that a group climate that supports and rewards change is an important driver of change, and in section 5.3 it was found that where there is a strong departmental culture of collaboration, there was a greater relationship of trust between those within the department, and less perceived risk in trying out new ways of teaching and learning. Also, teachers who had a more collaborative relationship with their students in the classroom were less concerned about failing in front of their students, regarding it as a learning experience for everyone.

In contrast, some teachers and managers appeared to be very isolated within the College, and felt oppressed by the level of external control over their pedagogical practice, reinforcing comments by Thompson and Wolstencroft (2012), who discussed the oppressive culture of mistrust and management control in the current FE environment. For example, there was resentment expressed by some of the College's less proficient users of BL that they were being forced into using BL where their existing, traditional teaching styles had served them well for over 20 years of teaching practice. As identified in earlier research (Billett, 2013; Gleeson, 2005), teachers in the current study expressed dissatisfaction with the assumption that managers knew more about teaching practice than teachers.

Managers were caught in the middle, trying to navigate between implementation of government policy with associated teacher accountability, and allowing teachers the autonomy to deliver learning (Wallace and Hoyle, 2005). They relied on knowledge

gained through personal research and advice from other managers, teachers and students to encourage BL implementation. However, there was concern across all levels regarding the lack of skills and readiness within the management team to drive BL implementation. Policy makers suggested that training and resources were available to support managers in this task, but none of the management sources discussed making use of them, suggesting a lack of communication in relation to their availability. This appeared to be a national phenomenon, with one of the Policy Maker sources highlighting the poor take-up of the resources, collaboration opportunities and training on offer. It appears that whilst Colleges who are already predisposed to BL are making good use of the resources, training and collaboration tools on offer, a much greater proportion have yet to access them.

5.5.2 The Potential for BL to improve Teacher Engagement with Pedagogy and Subject is a driver for adoption

In section 1 of the literature review we discussed the high turnover of staff within FE (Gleeson et al, 2015) and the potential for teachers to become disengaged from their subject due to overly prescriptive practices within the College. The findings of this thesis suggest that BL tools can help teachers re-engage with their subjects and pedagogical practice by connecting them with subject matter experts, communities of practice and innovative teaching methods. However, this was rarely recognised as a driver for BL adoption within the policy maker documents reviewed. When we consider that the DfE list one of its priorities as "always remembering that in education and care, by far the most important factor is the people delivering it – so we will strive to recruit, develop and retain the best" (Great Britain, Department for Education, 2019a) it is unusual that the policy maker documentation regarding BL did not focus on engaging teachers with their practice and ensuring they were kept up to date.

I suggest that policy makers would benefit from reviewing the impact that embedding BL tools into teaching practice has on teacher engagement and consider ways that BL could be used for lifelong learning of teachers within the FE sector.

5.6 Comparing the Key Differences between Policy Makers, College Managers and Teachers Regarding BL Adoption and Discussing Impacts

Although this is a relatively small-scale, qualitative study there are some obvious trends that have become evident from the findings relating to the comparison between the priorities of policy makers, managers and teachers within the College.

These are evident in Table 3 below, which compares the top five and bottom three codes discussed, based on the proportion of sources from each level which discussed them.

Table 3: Comparison of 5 Most Commonly Discussed Codes for Each Level

	Comparison of 5 Most Commonly Discussed Codes for Each Level		
	Policy makers	Managers	Teachers
Codes Most Discussed	Collaboration between organisations Teacher Confidence Resources for Teachers Duty of Inclusion Measurement and Reporting	Leadership of BL adoption Measurement and reporting College Funding and Policy Need to Support Teachers through Resources/Training Teacher Collaboration	Measurement and Reporting Teacher Collaboration Teacher Confidence Communication Engagement and Achievement
Codes Least Discussed	Engagement Time and Cost Communication	Time and Cost Duty of Inclusion Scope and Quality of Provisioning	Time and Cost Duty of Inclusion Institutional Collaboration

As you can see, there were some similarities in the perceived barriers and drivers of BL adoption across all levels. For example, the ability for BL to improve the measurement and reporting of student progress was regarded as an important driver of BL adoption in the College by policy makers, managers and teachers. Also, the time and cost of BL was not a frequently discussed topic by policy makers, managers or teachers.

However, there were some fundamental differences in the ways that policy makers, managers and teachers perceived the impacts of BL on the College, and how they regarded these impacts as drivers or barriers to BL adoption. For example, there was a noticeable trend that policy makers tended to focus more on the theme of facilitating the College to make them more effective and efficient, through resource sharing and institutional collaboration, whereas teachers and managers were more focused on peer and student collaboration and engagement. The key differences are discussed in detail below.

5.6.1 Teacher Confidence and Engagement

Policy makers, managers and teachers all recognised that a lack of teacher confidence in the use of learning technologies would prove to be a barrier in the adoption of BL within the College. However, rather than focussing on changing pedagogical practice, as recommended by Fullan (2013), policy maker sources suggested that the best way to improve teacher confidence was to provide them with formal training on the technologies (including a range of BL modules) and allocate resources to them. Resources included the use of external agencies and technology providers to support development.

Conversely, whilst managers also acknowledged the need to provide teachers with the appropriate resources to facilitate the use of blended learning, they identified the need for pedagogical change, highlighting opportunities for collaboration between teachers within the College as way of facilitating this change. As identified in earlier research by Anderson (2012), resource availability was less of a concern to teachers than was identified in earlier studies. However, both teachers and managers at the College highlighted the benefits of socially-mediated learning with peers as a way of

minimizing perceived risks in trying new technologies in the classroom, moving towards a more student-focused, active-learning pedagogy and driving adoption of BL into the curriculum.

This difference in approach between policy makers, managers and teachers has had a large impact on the ability of the College in incorporate BL into its everyday practice. As discussed earlier, Fullan (1991) indicated managers and teachers needed three things to support this change: readiness to adopt blended learning, resources to support them in changing their practice and a solid understanding of why they need to change and the impacts it will have on their pedagogical practice. It appears that policy makers are communicating that teachers need to change their practice and are providing resources to support the change, but they have discussed neither how this change will affect teachers' pedagogic practice, nor how it will benefit teachers or students. Apart from one mandatory class on BL technologies in the initial teacher training classes, none of the teachers interviewed had taken part in any of the government-supplied training. Nor had they made use of the resources supplied by JISC and other agencies.

This would suggest the current top-down model for improving teacher and manager confidence implemented by policy makers is not working at the College. Instead, teachers expressed a preference for socially-mediated learning with peers from the same subject specialism. Examples they provided of ways they would prefer to learn about BL implementation included formal training sessions with other members of their team, opportunities to observe BL tools being used successfully in other teachers' classrooms, general "best practice" sharing sessions with other members of their team, and the implementation of a "knowledgeable other" – a teacher in their subject area who was an innovative user of BL that could help them with implementation as and when they needed it.

5.6.2 Collaboration

Rogers (1995) emphasises the importance of the communication channels and social systems involved in implementing successful institution wide change, and the findings also suggested collaborative practices were a key aspect of successful BL

implementation. However, perceptions differed considerably between those making policy and those "on the ground", delivering the teaching. Teachers and managers tended to view collaboration as something that could happen between peers, students and the local community to support learning, whereas policy maker sources tended to view collaboration from an institution to institution perspective to promote economies of scale, improve time and cost effectiveness and quality of provision.

Reports referenced in the literature review suggest that competition between educational institutions for students means that Colleges are often not willing to share information which may give a competitor an advantage (Smith, 2015). In an attempt to overcome this, the government has instigated a process whereby JISC and the ETF act as intermediaries for IT collaboration between institutions, for example collecting information about BL implementation costs and sharing it anonymously with other Colleges if required. However, this means the government must act an additional party to the collaboration, creating a more complex flow of information.

There was no indication that the College was using these services. Instead, where the College had implemented organisation-level collaboration on BL, this was directly with government agencies, local HE institutions for which the College provides HE courses, local employers or community groups such as the police. Whilst these collaborations were generally successful, the lack of wider institution-level collaboration may be a result of a lack of leader confidence and poor focus on clear BL goals (Hills and Overton, 2010).

Evans (2008) discusses teacher professionalism as a social construct, and this was very evident within the findings of my study. Collaboration between peers was the most important BL topic discussed by teachers and appeared to be much more prolific within some College departments than others. The willingness of teachers to share ideas and resources within their department was the strongest indicator of whole-department successful BL adoption identified during this study. The collaborative nature of the department, and the pride the individuals took on their use of BL tools both as a result of that collaboration, and to further develop collaboration with others, formed an important aspect of the shared culture of professionalism within these departments. In contrast, departments where teachers worked in an isolated fashion may have had one or two innovative teachers within their cohort, but these teachers

were not encouraged to share their practices with others. In line with comments by Evans (2008), these departments appeared to have a very fragmented and individualised culture of professionalism, which worked against whole-group change.

More work needs to be done within the College by curriculum managers and heads of school to promote collaborative practice both within and across departments. Those who contributed to this study suggested that sharing ideas helped promote good practice, encouraged experimentation and made the pedagogic change required for BL adoption feel less risky. Simple steps, such as adding a "Teaching Best Practice" agenda item to the weekly department meeting gave teachers and managers the time and space to discuss BL practices they had tried and the impacts they had on their classes.

5.6.3 Inclusion vs Engagement

The macro vs micro view demonstrated in terms of collaboration above was also evident in the comparison between policy makers' views of BL as a driver for inclusion, and the views of managers and teachers. Policy makers were focused on providing those not in education or employment with opportunities to re-engage with learning to reduce unemployment and improve the skills of the workforce. They discussed the College's duty to ensure that educational opportunities were available for society's most vulnerable, and the need for flexibility to allow those with physical and mental issues, or those with family or employment commitments, to attend classes.

In contrast, teachers suggested that opportunities to improve student engagement, achievement and enjoyment of classes (as identified by Valk et al, 2010), for example through improved communication channels, were an important driver of BL adoption and would encourage those who may otherwise disengage from learning to attend classes and develop new learning skills.

There is evidently a disparity between the top-down view of policy makers and the teachers and managers who are responsible for delivering learning, who are driven by a more bottom-up approach, focusing on the needs of their students. I suggest that more needs to be done to align the policy maker, manager and teacher views on inclusion and engagement as drivers for BL adoption.

6 Conclusions

6.1 Introduction

This case study aimed to identify the perceived impacts that BL adoption would have on the English FE College within the study, whether these impacts were perceived as drivers or barriers to BL adoption, how these perceptions differed between policy makers, managers and teachers, and the possible effects any differences in perception may have on BL implementation.

Based on a qualitative analysis of policy and management documents and a series of interviews with managers and teachers within the College, it can be concluded that there are significant differences between the viewpoints of policy makers and those of the managers and teachers within the College. These differences in perspective have created a lack of clarity in the College vision of successful BL adoption, leading to a climate of uncertainty and piecemeal, predominantly bottom-up implementation of BL.

This chapter will answer the research questions posed at the beginning of this thesis and explain how the research aims and objectives were addressed. It will then look at the implications of the findings and the contribution this thesis makes to existing theory and practice, along with its impacts on my own professional development.

There were some limitations to this research, and these will be discussed in detail, before recommendations are made for future research.

6.2 Review of Research Aims and Objectives

As stated in section 1.4 the objectives of my research were as follows:

- Complete a critical review of existing literature relating to whole-institution adoption of BL as part of pedagogical practice. This was undertaken in Chapter Two and is reviewed in section 6.3 below.

- Identify the perceived impacts that BL adoption will have on the College, and whether these are perceived as drivers or barriers to adoption of BL within the College. These are identified in Chapter Four, discussed in detail in Chapter Five and summarised in section 6.4 below.

- Identify where perceptions differ between policy makers, managers and teachers and suggest the impact this may have on implementation of BL within the College. The differences and impacts were identified and discussed in detail in section 5.6 and are summarized in section 6.4 below.

- Recommend best practices to promote drivers and minimise barriers to BL embedding in the curriculum within the College. This is discussed as part of section 6.4 below.

- Suggest further research which could extend the findings of this study in the field of FE. This is discussed in section 6.9, towards the end of this chapter.

Although this was an exploratory case study on one English FE College, this study has extended existing literature on BL adoption in FE institutions and this is also discussed, along with the limitations of this study, within this chapter.

6.3 Critical Review of Existing Literature

The "critical review of existing literature relating to whole institution adoption of BL as part of pedagogical practice" aim was covered in Chapter Two: Literature Review, where I identified the complexity of defining BL, discussed the different approaches to BL implementation and the factors that may affect implementation, suggested different measures of success for BL implementation and finally reviewed the drivers and barriers for BL, as identified in existing literature.

6.4 Impacts, Drivers and Barriers to College-Wide BL Adoption

Once a solid understanding of existing literature was established, information was gathered from three different sources: policy makers (the Government Departments and agencies responsible for FE policy), managers and teachers within the College to explore their perceptions of the impacts, barriers and drivers of BL adoption within the College.

The document analysis was based on the grounded theory approach outlined by Glaser and Strauss (1967), with 19 policy documents and 35 College management documents analysed.

To add depth to the findings from the document analysis, 17 interviews were undertaken with College employees. There were 9 managers and 8 teachers interviewed. Analysis loosely followed a grounded theory approach.

The results of this analysis are discussed in Chapters Four and Five. In response to the research aim "Identify the perceived impacts that BL adoption will have on the College", four key themes were identified:

- BL has an impact on effectiveness and efficiency;
- There is a close relationship between BL and collaboration;
- BL affects student engagement and achievement; and
- BL affects teacher confidence and engagement.

Within each of these themes, there were elements identified as barriers, drivers, or both, depending on the perspective of the source. These are discussed in detail in Chapter 5 and summarised below.

6.4.1 Driving Effectiveness and Efficiency

Although sources across all levels were in alignment with existing literature (e.g. Fullan, 2013) in agreeing that the positive impacts BL could have on the College's effectiveness and efficiency would be a key driver for BL adoption, perceptions differed between the different organisational levels when it came to how this could be achieved.

Policy makers appeared to follow the approach suggested by Fullan (2013), who highlights the benefits of using funding and policy to drive top-down, whole-institution implementation of BL. However, whilst the implementations cited by Fullan (ibid) had clearly communicated strategies and goals, Lingfield (2012), pointed out that FE policy in the UK is frequently changed and often conflicting. It was evident in this study that this inconsistency, combined with a lack BL implementation knowledge, awareness and sponsorship within the leadership team, had created a climate in the College of uncertainty and mistrust, and a lack of clear, consistent strategy and direction, which was a barrier for BL adoption. Uncertainty over goals also made it difficult to measure effective BL implementation within the College, with both managers and teachers suggesting that existing formal measures such as Ofsted observations, LMS automated grading and informal walkthroughs were both inconsistent and ineffective.

In response, the changes in pedagogical practice required for implementation of BL tended to be led from the bottom-up, with teachers who Rogers (1995) would identify as innovators and early adopters driving a change-friendly culture of collaboration within their departments and encouraging their peers to try out new techniques and tools. Many of these innovators and early adopters had developed extended subject-specific communities of practice both online and through links with colleagues and those other institutions, where they shared both resources and experiences. This had created pockets of excellent practice with the College, but no overall, measurable whole-College adoption.

As previously found by de los Arcos (2016), this use of these online resource banks and communities of practice reduced the perceived time and cost of BL implementation. Subsequently, whilst previous research had identified the time and cost to develop and implement BL as a barrier (e.g. Yap et al, 2015; Singh and Hardaker, 2014), the findings of this study matched those of Anderson (2012), and Fee (2009) where it was predominantly those who were slow to adopt change in pedagogical practice who perceived the time and cost of BL as a barrier to its implementation. Those who were innovators or early adopters of new practices cited the time and cost savings to be had using BL, particularly in terms of pre-made resources and useful feedback tools, as a key driver for its adoption.

6.4.1.1 Recommendation

The findings of this study suggest that differing approaches to BL implementation from policy-makers, managers and teachers have led to patchy and inconsistent implementation within the College. Whilst there is likely little they can do to control the fluidity of the policy makers' goals in relation to BL, the College leadership team would benefit from setting universally agreed, simple goals and clear strategy for cross-College BL implementation, and communicating this clearly and frequently across all levels. An action plan could be put in place, including measurement against goals at regular intervals to check progress, and those identified as innovators and early adopters could be recruited to drive the changes from the bottom up. Sponsorship from the Senior Management Team, and the Principal in particular, would help ensure the momentum of the change process.

6.4.2 The Importance of Collaboration

Previous researchers (e.g. Beresford and Beresford, 2010) have identified the lack of resources and readiness for change within FE Colleges in the UK and have suggested in part this is due to FE's isolation from the wider academic community. As discussed above, policy makers had attempted to encourage collaboration through agency initiatives to drive BL adoption, but the College was not making the most of these programmes. Instead, managers gave examples of how they were collaborating with the local University on a course-by-course basis to develop BL in their classes, and

others gave examples of successful ad hoc collaborations with local businesses and community groups.

Although the policy makers had introduced BL implementation upskilling initiatives, including online courses and resources, both managers and teachers preferred ad hoc, subject-specific, social-learning type collaborations, using tools such as social media, discussion groups, peer observations, chat rooms and forums. Many suggested that understanding how someone else in their field had successfully implemented BL from a practical perspective, and having the opportunity to discuss potential pitfalls, not only highlighted the benefits of using BL but also significantly reduced the perceived risks, thus improving teacher confidence (discussed further in section 6.4.4 below).

In contrast to existing literature, it was evident from the findings that a departmental culture of collaboration was a stronger indicator of BL proficiency across the department than management proficiency or individual experts within the team. Where collaborative practices were strong, formal structures had been built to encourage sharing, such as a set item on the weekly departmental meeting agenda to discuss teaching best practice, and opportunities for peer observations.

6.4.2.1 Recommendation

More needs to be done by both policy makers and managers to ensure that formal opportunities are provided for social learning in relation to BL use within the College. This includes identifying and facilitating those who are early adopters to encourage BL adoption within their own teams through, for example, a subject-specific IT champion in each area, the addition of agenda items for discussing successful use of BL tools in departmental meetings, and subject-team training exercises.

6.4.3 Improving Student Learning

The impact of BL on students was approached very differently by policy makers than managers and teachers at the College. It is perhaps unsurprising that policy makers focussed more on BL as a driver of inclusion than College teachers and managers, but the implications of the different views were important. Policy makers took a “macro” view: seeing inclusion as a duty of the College, with BL providing an opportunity for

flexible learning to encourage those who would otherwise be unable to attend College due to physical or mental health issues, or work/home commitments, to engage in learning. From the government perspective, this encouraged people out of unemployment and into work.

Managers and teachers took a "micro" view: regarding BL as a way of improving student engagement, enjoyment and achievement. Although there was concern that some learners would require extra support to make the most of the tools, most teachers were able to clearly identify opportunities to make learning more engaging, through matching delivery methods with learning styles, encouraging social learning through social media and online communities of practice, and developing links with the community and employers that would continue once the learner had completed their course.

As established in existing literature, communication, equality and shared learning are part of the ethos of FE in England (Duckworth and Smith, 2018) and BL provides familiar communication channels to students, encouraging those who may be shy in contributing to class discussions to find their voice, and developing the formal working relationships between students and their teachers that many of the managers and teachers cited as one of the rewarding aspects of their job. Many considered this one of the key drivers of BL adoption. However, both existing literature and the experiences of the teachers and managers within the College emphasized the importance of careful design, suggesting that poor design could lead to passive learning and feelings of isolation.

6.4.3.1 Recommendation

During completion of the literature review, there was very little recent UK, FE-specific research into the design of BL to improve communication and student engagement, and more research is required to clarify the design of BL for use specifically in the FE field in such a way as to improve student engagement and communication.

6.4.4 Teacher Confidence and Engagement

Rogers'(1995) Diffusion of Innovation model provided excellent insight in relation to manager and teacher confidence and engagement with BL within the College. Some teachers and managers were natural innovators or early adopters: they were keen to try out new things, whether it was a new pedagogical practice, or a new teaching tool, so long as they could see some potential benefits, and they were comfortable with dealing with the associated risk. Within the College, the early adopters and innovators also tended to take a collaborative approach to learning in their classes, with some commenting on how students had helped them with the technologies when they hadn't worked, or had shown them how to use something new. In contrast, those Rogers (1995) would class as "laggards", i.e. those who were slow to adopt BL, favoured traditional pedagogy, with the teacher in focus as the gatekeeper of knowledge. The laggards tended to be very resistant to change and expressed concerns about the loss of control represented by the adoption of BL into their pedagogical practice.

There was discussion across all organisational levels in relation to how to encourage laggards to change their pedagogical practice to make good use of BL, but each had a different approach.

Policy makers believed that confidence could be improved by providing generic training on the design and use of blended learning tools and supplying resources to support teachers. Managers within the College were also focused on ensuring teachers had the resources required to succeed, along with sufficient training to use those resources. However, they were more focused on pedagogy in general, subject-specific training and resources, and commented on the benefits of social learning to improve confidence and engagement. Teachers tended to focus predominantly on improving pedagogical practice through social learning as outlined by Lev Vygotsky (1980), preferring to work with a "knowledgeable other" such as a subject matter expert or a teaching colleague within the culture of their own department to adapt their practices.

6.4.4.1 Recommendation

As discussed above, there appears to be a need for a formal programme of collaborative learning in relation to BL within the College, but it would appear that more also needs to be done to encourage the "laggards" to "unfreeze" their status quo. As identified by Rogers (1995), this could be through demonstrating the ease of learning and implementing BL and the clear benefits to be gained through its use, but it also requires monitoring by the senior management team and perhaps policy makers to identify any potential issues with compliance, and to reinforce that maintaining the status quo is no longer appropriate.

6.5 Impact on My Own Professional Identity and Practice

Literature suggests that professional doctorates play a vital role in bridging the gap between theory and professional practice (Fiserova, 2016) and from my own perspective, this was certainly the case.

When I first began the taught part of this EdD I was often frustrated by what I saw as purely academic theory which, at the time, I struggled to see in terms of practical implementation. Whilst completing the thesis part of the programme I came to realise the importance of educational theory in providing informed background to practice. I now regularly reference social learning theory in my day to day practice and have become evangelical about the importance of including social interaction and collaborative work within my BL programmes.

The research itself developed my understanding of the individual stories which merge together to form the success or failure of any change programme, including incorporation of eLearning into organisation-wide practice. Everybody is different, and whilst I am a person who embraces change, I now understand how fearful some people can be of adopting new practices, especially when they feel that their existing practice is perfectly acceptable. In these situations, an empathetic leader who clearly defines goals, fosters a collaborative environment, encourages risk and sees failure as a learning opportunity can have a huge impact on progress.

When I first started this doctorate, I was working as the BL manager within the College. I was looking to deepen my knowledge of BL change management, enhance my own practice and improve my career prospects. Within a year I had moved out into the commercial sector and the following year was promoted to Director of Learning for an international software house. This put a huge amount of stress on me personally: I was travelling a lot, working ten or more hours a day and still trying to complete my doctorate. However, I found the leadership and change management aspects of my doctoral studies provided me with an excellent toolbox to develop my own managerial practice.

For example, based on Lawson and Price's (2003) stories of change, and Lewin's (1947) change theory, every member of my current team has worked with me to develop a department "story of success", clearly defining the direction of the department and the steps needed to reach our goals. They all then have their own formalised individual stories and understand their contributions to the overall success of the department.

My team and I have since developed an extensive BL programme, successfully delivering learning to over one thousand users. Throughout the different curricula there are elements I had identified as drivers for eLearning adoption within this study that are used to promote the courses, such as clear descriptions of how it will save time, provide flexible out-of-hours learning and opportunities for learners to communicate and collaborate with both trainers and other learners.

Although the path to completion of this research has been long and winding, and my original objectives have changed, I feel it has provided me with the theory tools, professional skills and credibility to progress in my future career and personal development.

6.6 Recommendations to Improve Adoption of BL within the College

There were many issues brought up as a result of this study which warrant further investigation. However, based on the key differences discussed above and suggestions for improvement outlined by contributors, the main recommendations of this study are as follows:

- Policy makers work with managers and teachers to formulate and implement a top-down development strategy to drive College-wide adoption of BL. This should incorporate the following:
  - A clearly communicated strategy document and action plan which has clear short, medium and long-term goals and specific timelines. This should be aligned with other College policy and strategy and should be reviewed quarterly with all employees informed of progress.
  - BL-specific CPD points introduced as a mandatory part of teacher, manager and governor annual professional development, and assessed as part of the College's annual review. These could be achieved through separate formal training programmes for the governors, managers and teachers and should incorporate the existing resources available through government agencies. Training programmes should include real-time discussions with "knowledgeable others" to cover benefits, risks and practical aspects of implementation. It should also include allocated time to practice what has been learned.

- To assist bottom-up leadership of BL implementation, set up formal structures within the College to support social learning in relation to pedagogical practice, and the use of BL within the classroom. Suggestions include the following:
  - An Early Adopter from each subject area identified and promoted as a Learning Champion. This person would act as a "Knowledgeable Other", trying out new technologies and approaches to teaching, then guiding others in the team to also adopt these practices. This could be incorporated into the existing

Advanced Practitioners program, but knowledgeable others must be champions of the latest pedagogical practices, including BL.

- Peer observations on offer to those who want to see BL in use in a classroom situation.

- Regular team-based training sessions on practical applications of BL tools within specific subject areas. This should include time available for practice, reflection and experimentation with resources and opportunities for informal, social learning with colleagues.

- Actively encourage a culture of sharing within the College. This could be through things like specific departmental agenda items for sharing best practice, rewards for knowledge sharing and online departmental resource banks.

- Identify departments within the College that have set up successful links with external subject matter experts and employers and encourage them to work with other departments within the College to adopt similar practices.

6.7 Limitations of this Research

This was a qualitative case study, investigating one English FE College at a single point in time. Consequently, the results should not be considered generalizable over other institutions. However, wherever possible contextual information has been included to allow the reader to judge whether the findings here provide some insight into their own situation. For example, issues of time and cost highlighted by many related studies were not considered a major problem at the College, primarily because it had recently undergone a huge refurbishment and rebuild project which included funding for an entire new IT infrastructure.

A lack of time and resources for this project to conduct the data collection and analysis restricted the sample sizes to the minimum possible to demonstrate an appropriate

range of sources. This meant the study did not follow theoretical sampling to its full conclusion. However, investigation by Thomson (2011) into 100 grounded theory-based research projects, suggests that the original sample sizes of 54 documents and 17 interviews were within an acceptable range for this type of study.

Sample selection and data analysis were rigorous and well documented to allow others to replicate the study if required. Moreover, the analysis was checked by both the thesis supervisors and a third-party independent analyst for accuracy and reliability.

Access and privacy limited the data collection, with policy maker sources restricted to documents that were publicly available through the internet, whereas internal government documents and interviews with department ministers may have provided a deeper insight into the policy maker perceptions of barriers and drivers of BL adoption in FE Colleges. Further research is required to develop a deeper understanding of the beliefs and attitudes of policy makers in relation to FE, and this is discussed in more detail below.

6.8 Contributions to Existing Literature

Compared to universities and schools, the English FE sector is heavily under-researched (Augar et al, 2019; Ravenhall, 2014). As a result, it is suggested that it is in the public consciousness far less than other sectors and is therefore an easier target for funding cuts.

Some suggest that a lack of research has meant that FE has been "pushed down the government's priority list" (Ravenhall, ibid). It does not play its share of the role in public debate and media visibility and does not attract innovative thinking in relation to policy development.

Where research is undertaken it tends to focus on specific levels within the organisation, such as only on teachers, or only on managers. In the few studies I found where researchers have collected information from teachers and managers, they have used quantitative methods to collect data on BL usage from teachers, which is used as background information for the later qualitative interviews undertaken with managers. Through using qualitative methods for data collection across all levels, I was able to provide all levels with an equal voice to discuss issues in depth, providing a structure for others to follow in later research.

When this thesis project began, there was very little research into the implementation of BL across FE institutions in England and it was the aim of this research to help fill this gap and encourage debate on the role policy makers, managers and teachers play in the successful implementation of technology-based learning within the FE sector in England.

Although it was created well before the proliferation of BL, Rogers' (1995) Diffusion of Innovation model was useful in understanding the variables which affected BL implementation, and the actors involved developing the implementation across the organisation. Whilst previous criticisms of this model include that it focused on top-down rather than bottom-up change (Robertson et al, 2007), I found that the same actors and issues were to be found in both the top-down implementation of BL, and the bottom-up, teacher-led change which was more prevalent at the College.

The findings of this thesis suggest there are significant gaps in expectations and

conditions between policy makers, managers and teachers. This has had an impact on the implementation of BL across the College studied and has meant that teachers have led the way in formulating process from the ground up. The aim of this research was to establish drivers and barriers to BL and how these differ between policy makers, management and teacher perspectives. Further research is required to elaborate on the differences between the different levels, the reasons behind the differences and the impacts these have on BL implementation.

6.9 Recommendations for Future Research

Whilst this research provides insight into the barriers and drivers for BL adoption within one specific FE College in England, the ability to generalize into other situations is limited. Further investigation into other FE Colleges and other types of educational institution, following a similar methodology, would allow researchers to better determine which outcomes were context-specific, and which were applicable to a wider range of situations. It would also improve the base of literature relating to FE and blended learning, which is currently underdeveloped.

As mentioned previously, "policy maker" sources were limited to those that were publicly available on the internet. A small study into policy maker personnel within the Department for Education in England which involved interviews and access to internal documentation regarding the integration of BL into the FE curriculum would extend the ideas introduced within this study.

The findings of this research suggest that students have a big impact in driving the adoption of BL within the College and a further study to investigate student perceptions of drivers and barriers to BL adoption within the College in this research would add a useful extra layer for comparison. It is worth considering students as a fourth party for investigation if this study is to be repeated in other institutions in the future, but this was outside the scope of the current study.

The pace of change in BL is rapid and much of the core theory and assumptions of policy makers appears to be based on ideas that may be ten years old. More research is required into these assumptions. Specific questions which arose during this research included:

- How adept are English College students at using existing technologies for education purposes?

- How many English College students and teachers have problems with accessing learning technologies away from their classes – and what are their issues?

- When we consider the pace of change, is it appropriate to expect governors and senior managers to keep abreast of new technologies and understand their implementation?

- Which technologies do College students use to perform their own personal research and communication and is there a way to tap into these tools for education purposes?

Finally, there was a significant difference between the focus on time and cost found in this research and that of other literature. Recent times have seen a big increase in the number of free, easy to use online resources and resource creation tools and most teachers and managers interviewed gave examples of their use of some of these tools. Further research into this phenomenon and its impact on the focus of time and cost as a barrier to BL implementation would be useful.

6.10 Summary

This study used a qualitative approach to establish the perceived impacts of BL implementation, and the perceived drivers and barriers to BL adoption from the perspectives of policy makers, managers and teachers within an English FE College. It then identified the differences between the three perspectives, establishing that differences in perspective between policy makers and those who worked within the College had an impact on the way that BL was implemented within the College.

Suggestions were made to better align existing practices with those preferred by managers and teachers to support the use of BL, including the use of more collaborative training and support within subject teams and greater clarity in relation to the College's BL policy and goals.

List of Appendices

Appendix One: Ethical Considerations Pertaining to this Research (BERA Guidelines)

a. Consent and Right to Withdraw

BERA expects that voluntary informed consent is obtained at the start of the study, and that participants should be allowed to withdraw from the study at any time.

Each participant was emailed a consent form to read and sign before the interview. This was scanned and saved into an encrypted, password-protected folder for future reference. The same email contained an outline of the purpose and methodology of the research, an explanation of how their data would be used and a reminder that they had access to their transcript and could choose to withdraw from the study at any time. A copy of this communication is held in Appendix Three.

Only one participant declined to be interviewed. This was a curriculum manager, and they declined before I had started the interview process. A new participant was selected and agreed to be interviewed in their place.

I have explained in detail the consent I obtained to access internal College documentation in section 1.1.1.

b. Transparency

A copy of the laddering interview schedule was also sent to the participants before the interview to help them understand the content and purpose of the interview.

c. Incentives

No incentives were offered to participants for their involvement in this research.

d. Harm Arising from Participation in Research

As discussed in section 1.1.1, I was concerned about the psychological impact on the participant of discovering they had been labelled as a laggard or an early adopter. In particular, the negative connotations associated with the word “laggard” may not have fitted with their own self-view and subsequently caused them distress. I decided not to discuss their classification with them in the interview. In the pre-interview script I referenced that I was looking into what causes some to jump in to try new technologies and others to wait and see how everyone else gets on with it first. This

used terminology with less negative connotations than those associated with the word "laggard".

e. Emergent Requirement for Additional Support

Reflection and discussion regarding their own practice and those of their peers in the interview may have resulted in emergent ideas for which the participant may need later support (Gray, 2012). I allocated ten minutes at the end of the interview to go through these and suggested avenues of support and follow-up sessions if required.

f. Confidentiality and Anonymity

There was concern about the potential negative impacts on the participants if confidential information from the interview was shared or anonymity was compromised without consent. To minimise this risk, the interviews were recorded on a hand-held recording device which was password protected and kept under lock and key in my office. Once the interviews were complete, the recording was uploaded into a password-protected, encrypted folder on my Google Drive and office the original recording on the device was deleted.

The transcripts were completed outside of the College and stored away from the College site on a secure cloud server. Participants agreed when they signed the consent form not to discuss the content of the interview with anyone other than the interviewer, and they were reminded of this at the start of the interview.

There is a risk of "deductive disclosure" (Talerico, 2012), where the traits of my interviewees may have made them identifiable in my report. In anticipation of this, I sent copies of transcripts to the participants, asking them to check and confirm there is no reference to context which may identify them in the report.

g. Data Protection and Storage

I have already discussed how the data was kept secure and confidentiality maintained.

Throughout both the document analysis and the interviews, respondents were referred to by a numerical key rather than any identifiable characteristic. To help with data processing, these keys referred to their level within the organisation. For example, the Principal was P1, Vice Principal was P2, Heads of School were H1 and H2, Curriculum Managers C1 – C4 and Teachers T1 – T8. Those mentioned in the document analysis followed the same key. There were no names or addresses stored apart from the consent forms, which were scanned and held electronically on the same cloud server as the transcripts, but in a different folder. All folders were encrypted and password protected.

Voice recordings were deleted as soon as the participant confirmed that the transcript was a true and accurate record of the interview.

All collected data will be kept for one year after the publication of the thesis, then will be deleted.

h. Declaration of Interest

There was a potential conflict of interest in this project: I was researching why people may or may not use BL as the eLearning Manager at their College. However, I made it clear in the information and consent form that I was remaining impartial regarding individual input and that anything they said remained confidential and would not affect their job role in any way.

Other potential effects of being an “insider researcher” are discussed in detail in section 3.3.

i. Responsibility to Stakeholders in Research

Whilst there were no sponsors of this research, in accordance with BERA guidelines I have acknowledged the participants and my supervisors as part of this publication.

Within this section of the BERA guidelines, researchers are asked to communicate the extent to which the methodology and findings are robust and of quality and integrity. Throughout this document I have analysed the benefits and disadvantages of each decision I have made, to demonstrate integrity and quality where possible. Detailed explanations of my processes will allow the reader to assess the robustness of my approach for themselves.

j. Responsibilities to the Research Community

As discussed above, where possible I have taken a critical approach to assessing my decisions, offering theoretical background to support my discussion throughout. Any reference to others' work has been clearly referenced.

k. Responsibilities for Publication and Dissemination

This paper will be published online and made freely available to all participants and key stakeholders.

There has been no constraint placed on research findings by stakeholders as outlined in the BERA guidelines.

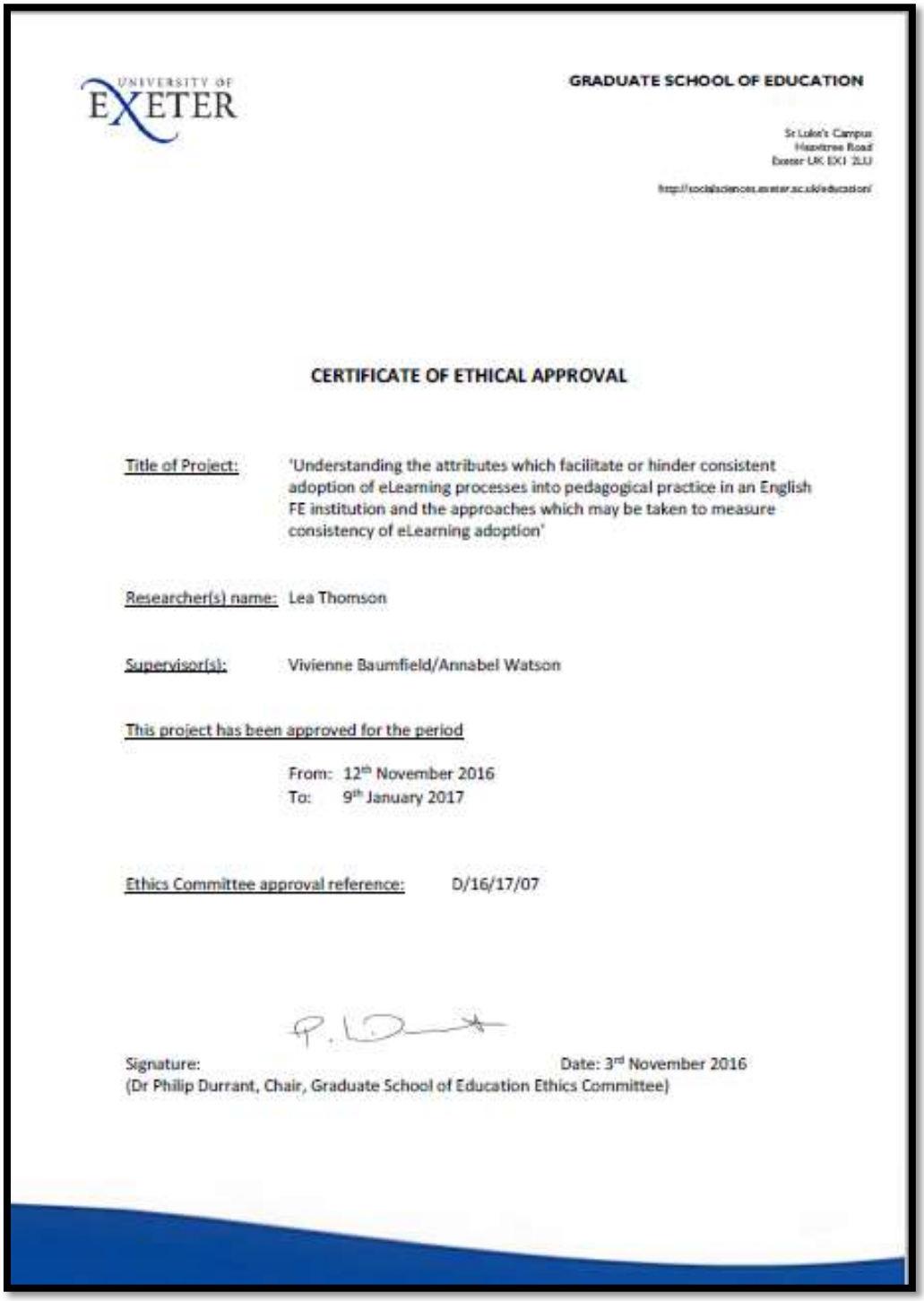
l. Responsibility for Researcher Well-being and Development

During the initial phases of this research, I was working as a manager within the College. There was potential that my own position within the College could be harmed if the senior management team felt the report did not represent the College. As I left soon after completing most of the data collection, this is no longer an issue.

m. Ethics Approval Certificate

My Certificate of Ethical Approval from the University of Exeter is shown below.

Figure 7: Ethics Approval Certificate



UNIVERSITY OF EXETER

GRADUATE SCHOOL OF EDUCATION

St Luke's Campus
Heavitree Road
Exeter UK EX1 2LU

http://socialsciences.exeter.ac.uk/education/

CERTIFICATE OF ETHICAL APPROVAL

Title of Project: 'Understanding the attributes which facilitate or hinder consistent adoption of eLearning processes into pedagogical practice in an English FE institution and the approaches which may be taken to measure consistency of eLearning adoption'

Researcher(s) name: Lea Thomson

Supervisor(s): Vivienne Baumfield/Annabel Watson

This project has been approved for the period

From: 12th November 2016
To: 9th January 2017

Ethics Committee approval reference: D/16/17/07

Signature: Date: 3rd November 2016
(Dr Philip Durrant, Chair, Graduate School of Education Ethics Committee)

Appendix Two: Data Collection Tools and Worked Example of Analysis

a. Demographics of Interviewees

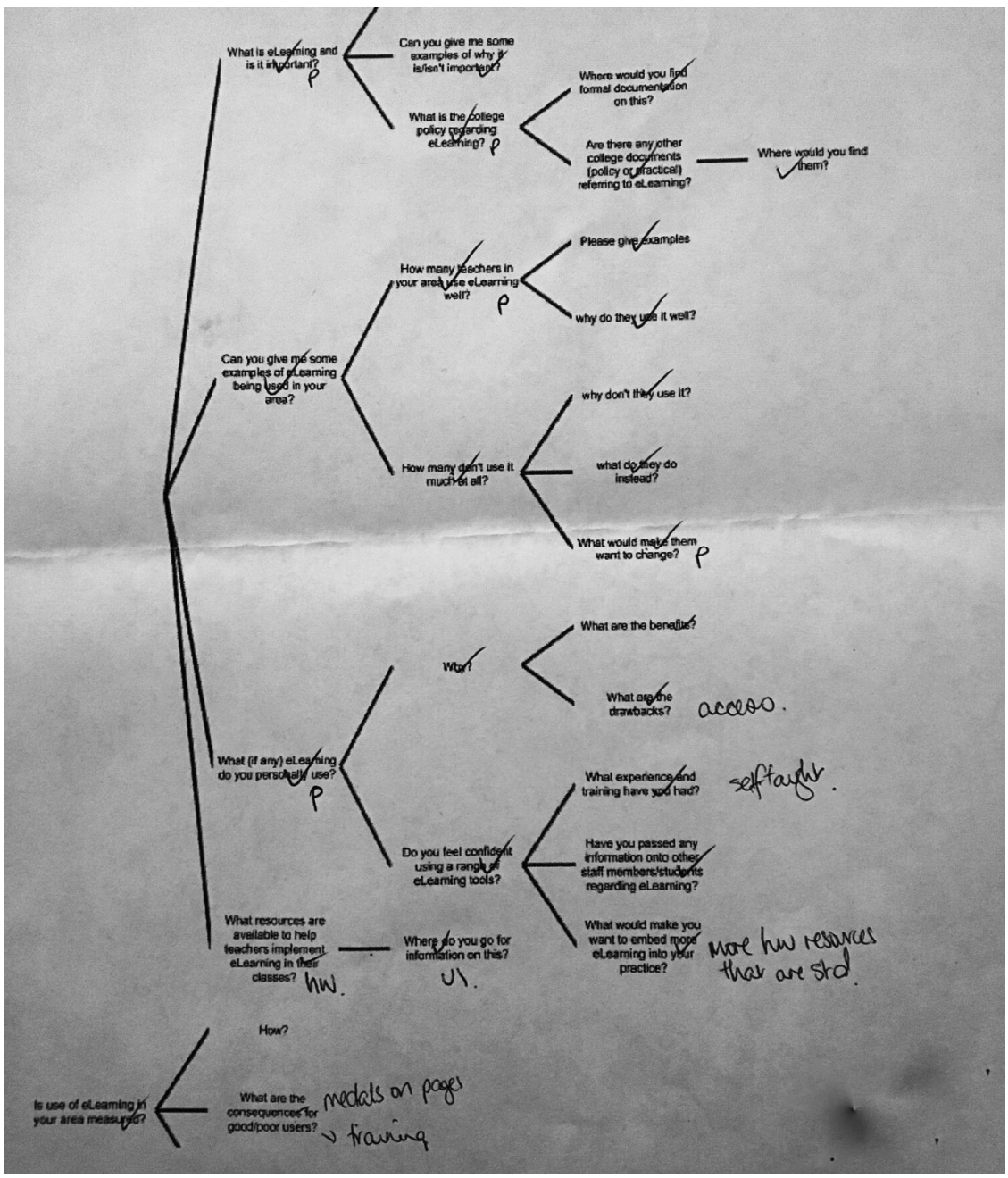
Table 4: Demographics of Interviewees

Demographics of Interview Participants				
Participant	Age Group	Gender	Experience (Managing)	Experience (Teaching)
M1	50+	F	20+	20+
M2	50+	F	8	20+
M3	50+	M	20+	20+
M4	50+	M	20+	20+
M5	50+	F	12	20+
CM1	50+	F	5	20+
CM2	50+	F	8	20+
CM3	40-50	F	2	16
CM4	50+	F	12	20+
T1	30 – 40	M	0	6
T2	50+	F	0	20+
T3	30 – 40	F	0	7
T4	30 – 40	F	0	12
T5	50+	M	0	20+
T6	20 – 30	M	0	3
T7	50+	M	0	20+
T8	50+	M	0	20+

b. Ladder Structure for Semi-Structured Interviews: Completed Example

Although the interviews were recorded and later transcribed, the interviewer used the ladder sheet below as an aide memoir to check that all relevant information was collected within the interview. The interviewer started with the question at the top left: What is eLearning and how is it important? As questions were covered by the participant they were checked off by the interviewer. Any questions asked directly (such as “How many teachers in your area are using eLearning well?” in the example below) were marked with a “P” to show they had been prompted.

Figure 8: Laddering Interview Guide



c. Template for Initial Familiarisation with Documents in Document Analysis

The initial sample of approximately 30 documents was reviewed using the structure shown in Table 5 below to help me gain some familiarisation with their content before I began the process of open coding. It enabled me to identify which documents held relevant information and how this related to the information gathered in the interviews. This helped me decide that there was enough crossover between the content of the documents and the discussion in the interviews to perform the analysis using a single codebook. It also gave me the opportunity to reflect on the context of the documents, and the impact this context may have on its content.

Table 5: Template for Document Familiarisation

Name of Document:		
Brief Summary of Document:		
Date Produced:		Date Reviewed:
Is eLearning discussed?	Yes	
If yes - how is it defined?	No	
Does the document state that eLearning is important? If yes - how?	Yes	
	No	
Is the embedding of eLearning into the curriculum discussed? - if yes, give examples	Yes	
	No	
	Yes	

Is there reference to formal documentation or policy regarding elearning? If yes, give examples	No	
Is there a discussion as to how and why some teachers use eLearning well? (if yes, provide examples)	Yes No	
Is there a discussion as to how and why some teachers use eLearning poorly? (if yes, provide examples)	Yes No	
What is mentioned in terms of structures and resource allocation to support eLearning implementation?		
Is there a discussion about how to measure eLearning use? If yes, provide examples	Yes No	
Is there a discussion about consequences for good/poor eLearning use? If yes, please provide examples	Yes No	
External Criticism: Please include age, authorship, authenticity of report. How document was produced, circulated and stored		

Internal Criticism: What is the “agenda” of the document? What is the relationship of the authors to the event? What external pressures were present which may bias the document? Does it represent a particular view?	

d. Documents Included in Analysis

My initial sample consisted of 30 documents but as I began the coding and gained familiarity with the document content I was able to identify a further 24 policy documents, predominantly from the UK.Gov website, which would be relevant for the study. The full list of documents is shown below. Some of the initial 30 documents had no reference at all to BL implementation (e.g. some of the College Corporation Committee minutes) but were included in this list as they were analysed as part of the sample selection.

Association of Colleges. (2015). *Code of Good Governance for English Colleges*. London: Association of Colleges.

College Corporation Committee (2014). *Minutes of corporation meeting 19th March 2014*, Boardroom, College Premises.

College Corporation Committee (2014). *Minutes of corporation meeting 29th April 2014*, Boardroom, College Premises.

College Corporation Committee (2014). *Minutes of corporation meeting 3rd June 2014*, Boardroom, College Premises.

College Corporation Committee (2014). *Minutes of corporation meeting 23rd July 2014*, Boardroom, College Premises.

College Corporation Committee (2014). *Minutes of corporation meeting 25th September 2014*, Boardroom, College Premises.

College Corporation Committee (2014). *Minutes of corporation meeting 21st October 2014*, Boardroom, College Premises.

College Corporation Committee (2014). *Minutes of corporation meeting 9th December 2014*, Boardroom, College Premises.

College Corporation Committee (2015). *Minutes of corporation meeting 3rd February 2015*, Boardroom, College Premises.

College Corporation Committee (2015). *Minutes of corporation meeting 17th March 2015*, Boardroom, College Premises.

College Corporation Committee (2015). *Minutes of corporation meeting 12th May 2015*, Boardroom, College Premises.

College Corporation Committee (2015). *Minutes of corporation meeting 9th June 2015*, Boardroom, College Premises.

College Corporation Committee (2015). *Minutes of corporation meeting 7th July 2015*, Boardroom, College Premises.

College Corporation Committee (2015). *Minutes of corporation meeting 29th September 2015*, Boardroom, College Premises.

College Corporation Committee (2015). *Minutes of corporation meeting 10th November 2015*, Boardroom, College Premises.

College Corporation Committee (2015). *Minutes of corporation meeting 15th December 2015*, Boardroom, College Premises.

College Corporation Committee (2016). *Minutes of corporation meeting 2nd February 2016*, Boardroom, College Premises.

College Corporation Committee (2016). *Minutes of corporation meeting 26th April 2016*, Boardroom, College Premises.

College Corporation Committee (2016). *Minutes of corporation meeting 14th June 2016*, Boardroom, College Premises.

College Corporation Committee (2016). *Minutes of corporation meeting 5th July 2016*, Boardroom, College Premises.

College Corporation Committee (2016). *Minutes of corporation meeting 11th October 2016*, Boardroom, College Premises.

College Corporation Committee (2016). *Minutes of corporation meeting 6th December 2016*, Boardroom, College Premises.

College Technology and Innovation Group (2014). *Minutes of Technology and Innovation group meeting 27th November 2014*, Meeting Room B1, College Premises.

College Technology and Innovation Group (2015). *Minutes of Technology and Innovation group meeting 15th January 2016*, Meeting Room B1, College Premises.

College Technology and Innovation Group (2015). *Minutes of Technology and Innovation group meeting 12th February 2015*, Meeting Room B3, College Premises.

College Technology and Innovation Group (2015). *Minutes of Technology and Innovation group meeting 15th September 2015*, Meeting Room B1, College Premises.

College Technology and Innovation Group (2016). *Minutes of Technology and Innovation group meeting 14th January 2016*, Meeting Room B1, College Premises.

College Technology and Innovation Group (2016). *Minutes of Technology and Innovation group meeting 10th March 2016*, Meeting Room B1, College Premises.

College Technology and Innovation Group (2016). *Minutes of Technology and Innovation group meeting 26th April 2016*, Meeting Room B1, College Premises.

College Technology and Innovation Group (2016). *Minutes of Technology and Innovation group meeting 9th June 2016*, Meeting Room B1, College Premises.

College Technology and Innovation Group (2016). *Minutes of Technology and Innovation group meeting 7th July 2016*, Meeting Room B1, College Premises.

College Technology and Innovation Group (2016). *Minutes of Technology and Innovation group meeting 8th September 2016*, Meeting Room B1, College Premises.

College Technology and Innovation Group (2016). *Minutes of Technology and Innovation group meeting 26th November 2016*, Meeting Room B1, College Premises.

ECORYS UK. (2016). *Digital skills for the UK economy*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/atta

chment_data/file/492889/DCMSDigitalSkillsReportJan2016.pdf (Accessed 28 June 2018).

Great Britain. Department of Business, Innovation and Skills. (2014). *Government response to the recommendations from the Further Education Learning Technology Action Group (FELTAG)*. London: Crown Publications.

Great Britain. Department of Business, Innovation and Skills. (2014). *The Government's Strategy to Support Workforce Excellence in Further Education. Further Education Workforce Strategy*. London: Crown Publications.

Great Britain. Department of Business, Innovation and Skills. (2015). *An Evaluation of the Further Education Commissioner – led Intervention Process Summary Report*. London: Crown Publications.

Great Britain. Department of Business, Innovation and Skills. (2015) *FELTAG Progress Report: Department for Business, Innovation and Skills BIS/15/71*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/405001/BIS_15_71_FELTAG_progress_report.pdf (Accessed 1 July 2018).

Great Britain. Department of Business, Innovation and Skills. (2016). *Reviewing post-16 education and training institutions - updated guidance on Area Reviews*. London: Crown Publications.

Great Britain. Department for Education. (2016*). Implementing the further education and skills reform programme*. London: Crown Publishers.

Great Britain. Department for Education. (2017). *Teaching Excellence and Student Outcomes Framework*. London: Crown Publications.

Great Britain. Department for Education. (2017). *Planning and delivery of 16 to 19 study programmes: guide for providers*. London: Crown Publications.

Great Britain. Department for Education. (2017). *Apprenticeship off-the-job training: policy background and examples*. Available at: https://www.gov.uk/government/publications/apprenticeships-off-the-job-training. (Accessed 1 July 2018).

Great Britain. Department for Education. (2017). *16-18 accountability measures: technical guide for measures in 2017 and 2018*. London: Crown Publications.

Great Britain. Education and Training Foundation. (2015) *Education and Training Foundation Annual Review 2014-2015*. Available at: https://www.et-foundation.co.uk/about-us/documents/. (Accessed 17 June 2018).

Great Britain. HM Government. (2015) *Reviewing post-16 education and training institutions*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/446516/BIS-15-433-reviewing-post-16-education-policy.pdf. (Accessed 17 July 2018).

Great Britain. Skills Funding Agency (SFA). (2016). *Report on SFA actions from the FELTAG Report*. London: Skills Funding Agency.

Innovate UK. (2015). *Learning Technologies: Design for Impact 2015*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/428829/Directory_LearningTech_CO014_webfinal.pdf. (Accessed 17 July 2018).

JISC. (2015). *Enhancing the student digital experience: a strategic approach.* Available at: https://www.jisc.ac.uk/guides/enhancing-the-digital-student-experience. (Accessed 12th August 2018).

Ofsted. (2013). *Learning and Skills Inspection Report 408428*. Available at: https://files.api.ofsted.gov.uk/v1/file/2193809. (Accessed 28 June 2018).

Ofsted. (2017). *Learning and Skills Inspection Report 408428*. Available at: https://files.api.ofsted.gov.uk/v1/file/2711305. (Accessed 28 June 2018).

Ofsted. (2018). *Learning and Skills Inspection Report 408428*. Available at: https://files.api.ofsted.gov.uk/v1/file/50042679. (Accessed 28 June 2018).

QAA. (2015). *College Higher Education Toolkit*. Gloucester, UK: Quality Assurance Agency.

QAA. (2016). *Higher Education Review of the College*. Available at: https://www.qaa.ac.uk/docs/qaa/reports/(college name)-her-16.pdf?sfvrsn=6f8af481_4. (Accessed 28 June 2018).

e. Thematic Analysis: Worked Examples of My Process

Table 6 below illustrates the codes that were attached as part of the thematic coding process and how they were subsequently grouped into themes to support the "story" of the findings.

For each point identified in the sources, I associated a code (outlined in the "Codes" column in the table below). For example, as you can see in Table 6, in one of the document sources it was stated that the college required "A plan to embrace the possibilities provided by technology which can increase the quality and scope of provision". In my initial analysis of the document sources, I identified this as relating to an organisation-wide concept of "Scope and Quality of Provisioning". This process was undertaken for each of the key points identified in the interviews and document sources.

After the initial analysis of the first set of documents (outlined in the methodology chapter) and the interview transcripts, I then consolidated the codes, as some were duplicated or overlapped. As part of this consolidation, I identified that the codes fell into three core groups, relating to the entity upon which they were focused. Therefore, when I created codes to facilitate coding using NVivo, the codes were grouped by the entity to which they related. For example, organisation-specific codes began with "O", teacher-related codes begin with "T", and student-related codes began with "S". This made the codes easier to locate, and subsequently sped up the coding process.

I then used NVivo to complete the thematic analysis. This was an interative process, as every new source potentially added new codes or added to the existing codes. This meant that the code list had to be consolidated on a regular basis, and in some cases all the sources had to be re-examined to check against the nuances of the amended codes.

After each pass of the thematic analysis, I reviewed the core underlying themes identified in the codes. By grouping the codes into their themes, as shown in Table 6, I was able to establish a storyline to discuss in the findings.

Table 6: Thematic Analysis Example

Themes	Codes	Examples
College Effectiveness and Efficiency	O1 – Scope and Quality of Provisioning	BIS 2016 p12 – Area Reviews – plan must include : A plan to embrace the possibilities provided by technology which can increase the quality and scope of provision.
	O2 – Measurement and Reporting	Andrew: Last year we measured it in lesson observations, although admittedly that only provides a brief snapshot. This year it is included in learning walks but again only in part of the theme, which came out of last year's assessments. Student surveys, lesson observations and student focus groups will give us some idea. We haven't done an audit of schemes of work to see where aspects of ILT is embedded.
	O4- Policy	BIS 2015 Progress on Feltag report: It advised that funding, assessment, audit and inspection should not be a constraint on innovation.
	Time and Cost Merged three codes: O5 – Organisation Time and Cost	BIS 2016 Area Review: An approach to innovation in delivery that is focused on the costs and benefits of blending learning in ways that can continually reflect and adapt to changing local needs and use intra and inter institutional collaboration to reduce the costs of innovation.
	T3 – Teacher Time	JUNE: you want an honest answer? The problem is time. We can't afford to give everyone more money to do it, but what people really want is time to try it out. If you gave people regular remission or training days you would get more done. There is not enough time to plan your lessons as it is.
	T6 – Teacher Organisation	JACK: I find that most of this makes things much easier. When things are on a machine rather than paper I can get them from home without having to carry a machine home or a folder of papers. If I have to print then it is never lost.
	O7 - Leadership	FAY: Key people within a college - managers, advanced practitioners - it's got to be driven by them - they've got to be committed. And if they neither have the skills, knowledge or commitment themselves that makes it quite tricky I

		suppose. So if you look at our advanced practitioners team, the commitment and skills - many of them are quite poor and that reflects their age.
	T5 – Teacher Resources	Andrew: What is good is that here most rooms have access to pcs or laptops and that is a real strength in the college, because other colleges don't have half as much as we have here.
Collaboration	O3 – Collaboration between Organisations/Community	Govt response to Feltag - BIS (2014 p4) The Education and Training Foundation's learning technologies support programme (see the Capacity and Capability of FE and Skills Providers section for further information) will create networks and communities of practice to share resources and innovations in the effective use of learning technologies. This will involve training providers, employers, Local Enterprise Partnerships, schools, Higher Education institutions and other educational entities.
	S4 – Student Communication	MARK: I think it absolutely essential for students to interact with teachers and develop professional relationships with teachers and if eLearning complements that in a very planned and organised way, which I guess a lot of people might now describe as a blended approach, I see huge advantages in that.
	T2 – Teacher Collaboration	OSCAR: There's people who put a lot of time in then don't want to share it because they think they've put a lot of effort into it and other people should be doing the same with their own resources rather than stealing theirs. MARIE: If we see people doing things that would be useful to share with other people we will ask them to share it for example on Tuesday afternoon sessions. The other way we will do it for example with new teachers, we would say it would be really useful if you could shadow such and such so you can see how they do this.

Engagement and Inclusion	S1 – Student Engagement	OSCAR: To include it? Yes I think so. It gives the person doing the learning some sense of ownership of the learning and I think it gives them a sense of independence separate from the person who is delivering the learning. JACKIE: You can have the same materials presented in different ways so the students get different viewpoints on it.
	S3 – Flexibility of Learning	MARIE: I think it is hugely important mainly because it corresponds to students' own ways of doing things. So I think we miss a trick if we don't try to adapt our learning to fit what students know and feel comfortable with. TERRI: The main benefit is recapping. For some students the lesson may go by quite quickly and they can catch up with other students that might have more of an advantage in that lesson.
	S6 – Student Inclusion	NIACE 2016 Online Learning Report p5 There is very clear evidence of demand for online (non-attendance) modes of learning from learners who would not, or could not attend traditional courses, covering all of those groups who might be excluded by family responsibilities, time pressures including work commitments, geographical location and social and cultural barriers. There is no evidence of the scale of latent demand. If it were to be significant it might support an argument for ring-fenced funding of appropriate online programmes.
	S2 – Student Achievement	MARK: If someone is purporting that eLearning is having a positive impact we would expect to see improved retention, improved pass rates and improved achievement and also improved progression for students from one level to the next, so they are better prepared to make the transition from level 2 to level 3 for example. Or if it's their final year with us, they've got employability skills through the elearning experiences that enable them to get better jobs and sustain employment through those better jobs.
	T1 – Teacher confidence	FAY: I think there is something about breaking down the stigma, making people

Teacher Confidence and Engagement		feel less embarrassed, when people take small steps, giving them praise for that. But I think there is also something about us setting minimum standards and that actually when people fail to meet them, you put in support. OSCAR: Then there's the fear that if everything becomes electronic then you won't need me anymore and I won't have a job. So I guess it's knowing that if you did engage in something people see the value of you doing it rather than you having a fear of it replacing you. People also worry about it going wrong - if you spend a lot of time creating resources then they don't work - especially if your whiteboard doesn't work - as happened in my observation last week… If you're a little bit less confident, then the technology doesn't work, you are less likely to try it again, aren't you?
	T4 – Teacher Engagement	OSCAR: If it is done poorly it drives more people away than encourages them to use it. So I think it if it just becomes a frustrating experience because it doesn't work. SUE: if you think in terms of overall consequences, if you don't use it you risk falling behind by not keeping current on real-life practices.

f. Coded Response Tables

Table 7: Total Number of Mentions for Code by Level

	Government & Agencies		College Management		Teacher	
	Number	Percent	Number	Percent	Number	Percent
Organisation						
Scope and Quality of Provisioning	6	4%	5	2%	0	0%
Measurement and Reporting of Efficiency	9	6%	30	12%	12	12%
Collaboration	22	15%	7	3%	0	0%
Funding and Policy	13	9%	19	7%	2	2%
Time and Cost	9	6%	6	2%	2	2%
Inclusion	6	4%	3	1%	0	0%
Leadership	9	6%	29	11%	2	2%
Student						
Engagement	6	4%	19	7%	6	6%
Achievement	6	4%	9	4%	4	4%
Flexibility	3	2%	10	4%	6	6%
Communication	5	3%	9	4%	8	8%
Time and Cost	0	0%	1	0%	0	0%
Inclusion	10	7%	9	4%	7	7%
Teacher						
Confidence	17	12%	20	8%	9	9%
Collaboration	10	7%	28	11%	18	17%
Time	2	1%	9	4%	6	6%
Engagement	0	0%	18	7%	6	6%
Resources	9	6%	26	10%	12	12%
Organisation	2	1%	-	0%	3	3%
Totals	144	100%	257	100%	103	100%

Table 7 above outlines the number of times each code was mentioned by policy maker, manager and teacher sources.

Table 8: Total Number of Sources that Mentioned the Code

	Government & Agencies		College Management		Teacher	
	Number	Percent	Number	Percent	Number	Percent
Organisation						
Scope and Quality of Provisioning	5	28%	3	8%	0	0%
Measurement and Reporting of Efficiency	6	33%	18	50%	8	100%
Collaboration	8	44%	5	14%	0	0%
Funding and Policy	5	28%	16	44%	2	25%
Time and Cost	3	17%	6	17%	2	25%
Inclusion	6	33%	3	8%	0	0%
Leadership	5	28%	19	53%	2	25%
Student						
Engagement	5	28%	11	31%	4	50%
Achievement	4	22%	6	17%	4	50%
Flexibility	3	17%	8	22%	4	50%
Communication	3	17%	7	19%	6	75%
Time and Cost	0	0%	1	3%	0	0%
Inclusion	7	39%	7	19%	4	50%
Teacher						
Confidence	8	44%	13	36%	7	88%
Collaboration	5	28%	14	39%	8	100%
Time	2	11%	8	22%	4	50%
Engagement	0	0%	9	25%	4	50%
Resources	8	44%	16	44%	6	75%
Organisation	1	6%	-	0%	1	13%
Totals	18	100%	36	100%	8	100%

Table 8 above outlines the number of sources that mentioned the codes, with documents and interviews collated and grouped by decision-making level.

Appendix Three:

Consent Form and

Preparatory Information

Title of Project
Understanding the attributes which facilitate or hinder consistent adoption of eLearning processes into pedagogical practice in an English FE institution and the approaches which may be taken to measure consistency of eLearning adoption.

Details of Project
My name is Lea Thomson and I am the Head of eLearning at College. In my spare time I am also working to complete a Doctorate in Education (EdD).

I am currently undertaking a series of interviews with staff at College. This research will contribute to my doctoral thesis, which is looking at why some people race to adopt new technology in their teaching practice and why others leave it until much later. I hope that not only our college but other colleges and organisations will be able to use our findings to help develop a more consistent approach to eLearning across the organisation.

The other element I am researching for this project is the way that we can measure consistent adoption of eLearning in the curriculum, and I would really like to learn your thoughts on this.

I would like to reassure you that any information you tell me is completely confidential, relates solely to this project, and will not affect your job role in any way.

Contact Details
For further information about the research please contact:

Name: Lea Thomson
Postal address: [redacted]
Telephone: [redacted]
Email: [redacted]

If you have concerns/questions about the research you would like to discuss with someone else at the University, please contact:

Vivienne Marie Baumfield PhD
Professor of Professional Learning
Centre for Research in Professional Learning
Graduate School of Education
University of Exeter –St Luke's Campus
College Road
Exeter
EX1 1TE
+44(0)1392 72 4879

Confidentiality
Although your interview will be recorded and transcribed, I would like to reassure you that interview tapes and transcripts will be held in confidence. They will not be used other than for the purposes described above and third parties will not be allowed access to them (except as may be required by the law). You will be supplied with a copy of your interview transcript so that you can comment on and edit it as you see fit (please give your email below so that I am able to contact you at a later date).Your data will be held in accordance with the Data Protection Act.

Data Protection Notice
The information you provide will be used for research purposes and your personal data will be processed in accordance with current data protection legislation and the University of Exeter's notification lodged at the Information Commissioner's Office. Your personal data will be treated in the strictest confidence and will not be disclosed to any unauthorised third parties. The transcript of your interview will have reference to any personal information which may directly identify you removed and will only be seen by me, by the second data coder (who is not connected to Northampton or the College) and by you.

The results of the research will be published in anonymised form.

Anonymity
Interview data will be held and used on an anonymous basis, with no mention of your name, but we will refer to your general job role (e.g. lecturer, curriculum manager).

Consent
I have been fully informed about the aims and purposes of the project.

I understand that:

- there is no compulsion for me to participate in this research project and, if I do choose to participate, I may withdraw at any stage;
- I have the right to refuse permission for the publication of any information about me;
- any information which I give will be used solely for the purposes of this research project, which may include publications or academic conference or seminar presentations;
- all information I give will be treated as confidential;
- I agree not to discuss the content of the interview with anyone other than Lea Thomson
- the researcher will make every effort to preserve my anonymity.

……. …….

(Signature of participant) (Date)

……

(Email address of participant if they have requested to view a copy of the interview transcript.)

……. Lea Thomson

(Signature of researcher) (Printed name of researcher)

One copy of this form will be kept by the participant; a second copy will be kept by the researcher. Your contact details are kept separately from your interview data.

Bibliography

Abusalim, N., Rayyan, M., Jarrah, M. & Sharab, M. (2020) Institutional adoption of blended learning on a budget. *International Journal of Educational Management,* 34(7), pp. 1203-1220.

Adriansen, H. K. and Madsen, L. M. (2009) 'Studying the making of geographical knowledge: The implications of insider interviews', *Norsk Geografisk Tidsskrift,* 63(3), pp. 145-153.

Alkharang, M. (2014) *Factors that influence the adoption of eLearning - an empirical study in Kuwait.* Ph.D. thesis, Brunel University.

Alonso-Díaz, L. and Yuste-Tosina, R. (2015) 'Constructing a Grounded Theory of BL Assessment', *Journal of Educational Computing Research,* 53(3), pp. 315-344.

Amabile, T. and Kramer, S. J. (2011) 'The Power of Small Wins', *Harvard Business Review,* (May 2011).

Anderson, C. (2012) *Barriers and enablers to teachers' adoption of online teaching at an Australian University*. Ph.D. thesis, RMIT University.

Anderson, J. and McCormick, R. (2005) 'Ten pedagogic principles for blended learning', *Insight–Observatory for New Technologies and Education, Brussels* 19(04), pp. 2011.

Andrew, M. (2001). 'Web-based Strategies for Improving Undergraduate Commitment to Learning'. In C. Montgomerie & J. Viteli (Eds.), *Proceedings of ED-MEDIA 2001--World Conference on Educational Multimedia, Hypermedia & Telecommunications* (pp. 53-58). [Online] Norfolk, VA USA: Association for the Advancement of Computing in Education (AACE). [Accessed 27 April 2019]. Available at https://www.learntechlib.org/primary/p/9210/.

AoC (2014) *A summary discussion of the use of learning technologies in further education.* [online]. London: Association of Colleges. [Accessed 26 June 2016]. Available at: https://www.alt.ac.uk/sites/alt.ac.uk/files/public/A%20summary%20discussion%20of%20the%20use%20of%20learning%20technologies%20in%20FE%20%20V04%20%282%29.pdf.

AoC (2017) *College Key Facts 2016/17* [online]. London: Association of Colleges. [Accessed: 8/9/2019]. Available at: https://indd.adobe.com/view/2ecfd04e-047c-49cc-91d3-18f9bdb9ca73

AoC (2019) *College Key Facts 2018/19* [online]. London: Association of Colleges. [Accessed 8th September 2019]. Available at: https://www.aoc.co.uk/sites/default/files/College%20Key%20Facts%202018-19.pdf.

Appelbaum, S. H. (1997) 'Socio-technical systems theory: an intervention strategy for organizational development', *Management Decision,* 35(6), pp. 452-463.

Argyris, C. (1976) 'Leadership, learning, and changing the status quo', *Organizational Dynamics,* 4(3), pp. 29.

Armstrong, E. J. (2019) 'Maximising motivators for technology-enhanced learning for further education teachers: moving beyond the early adopters in a time of austerity', *Research in Learning Technology,* 27.

Armstrong, S. J. and Sadler-Smith, E. (2008) 'Learning on demand, at your own pace, in rapid bite-sized chunks: the future shape of management development?', *Academy of Management Learning & Education,* 7(4), pp. 571-586.

Arroyo, A. T., Kidd, A. R., Burns, S. M., Cruz, I. J. and Lawrence-Lamb, J. E. (2015) 'Increments of transformation from midnight to daylight: How a Professor and four undergraduate students experienced an original philosophy of teaching and learning in two online courses', *Journal of Transformative Education,* 13(4), pp. 341-365.

Au, K. H. (2011) *Literacy Achievement and Diversity: Keys to success for students, teachers, and schools. Multicultural Education Series.* New York: Teachers College Press.

Auernhammer, J. and Hall, H. (2014) 'Organizational culture in knowledge creation, creativity and innovation: Towards the Freiraum model', *Journal of Information Science,* 40(2), pp. 154-166.

Augar, P., Crewe, I., de Rojas, J., Peck, E., Robinson, B. and Wolf, A. (2019). *Independent panel report to the Review of Post-18 Education and Funding.* CP 117 [online] London: Secretary of State for Education. [Accessed 20 July 2019]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/805127/Review_of_post_18_education_and_funding.pdf.

Awidi, I. T. and Paynter, M. (2019) 'The impact of a flipped classroom approach on student learning experience', *Computers & Education,* 128, pp. 269-283.

Bailey, B. and Unwin, L. (2014) 'Continuity and change in English Further Education: A century of voluntarism and permissive adaptability', *British Journal of Educational Studies,* 62(4), pp. 449-464.

Baker, S. and Edwards, R. (2012) *How many qualitative interviews is enough?* [online] Brighton: University of Brighton National Centre for Research Methods. [Accessed 25 June 2017]. Available at: http://eprints.ncrm.ac.uk/2273/4/how_many_interviews.pdf.

Balogun, J. and Hailey, V. H. (2008) *Exploring strategic change.* 3rd edn. Harlow: Pearson Education.

Bandura, A. (1971) *Social Learning Theory*. New York: General Learning Press.

Bathmaker, A.M. (2013) 'Defining 'knowledge' in vocational education qualifications in England: an analysis of key stakeholders and their constructions of knowledge, purposes and content', *Journal of Vocational Education and Training,* 65(1), pp. 87-107.

Baveye, P. (2015) 'What is the shelf life of the knowledge in your field?', [online] *ResearchGate*. [Accessed 5 May 2019] Available at: https://www.researchgate.net/post/What_is_the_shelf-life_of_the_knowledge_in_your_field 2019.

Baxter, P. & Jack, S., (2008). Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers. *The Qualitative Report,* 13(4), pp. 544-559.

BBC (2009) 'Tax Rise as UK Debt Hits Record High', [online] *BBC News Channel*, *BBC News.* [Accessed 31 May 2016]. Available at http://news.bbc.co.uk/1/hi/uk_politics/8011321.stm.

Beetham, H. and Sharpe, R. (2013) *Rethinking pedagogy for a digital age: designing for 21st century learning.* 2nd edn. Abingdon: Routledge.

Belfield, C., Farquharson, C. and Sibieta, L. (2018) *2018 Annual Report on Education Spending in England*, [online] London: Nuffield Foundation. [Accessed 27 April 2019]. Available at: https://www.ifs.org.uk/uploads/publications/comms/R150.pdf.

Belgutay, J. (2018) *Let's open our eyes to the invisible students* [online]. TES. [Accessed 26 July 2019]. Available at: https://www.tes.com/news/lets-open-our-eyes-invisible-students.

Belk, R. W. (2006) *Handbook of Qualitative Research Methods in Marketing.* Camberley: Edward Elgar Publishing Ltd.

BERA (2018) *Ethical Guidelines for Educational Research*. 4th edn. London: British Educational Research Association (BERA).

Beresford, R. and Beresford, K. (2010) 'The role of networks in supporting grassroots good practice in enterprise education', *Research in Post-Compulsory Education,* 15(3), pp. 275-288.

Bignold, W. and Su, F. (2013) 'The role of the narrator in narrative inquiry in education: construction and co-construction in two case studies', *International Journal of Research & Method in Education,* 36(4), pp. 400-414.

Billett, S. (2013) 'Reflection: Towards a mature provision of vocational education', *International Journal of Training Research,* 11(2), pp. 184-194.

Birks, M. and Mills, J. (2011) *Grounded Theory: A Practical Guide.* London: SAGE Publications.

Bohle Carbonell, K., Dailey-Hebert, A. & Gijselaers, W., 2013. Unleashing the creative potential of faculty to create blended learning. *The Internet and Higher Education,* Volume 18, pp. 29-37.

Boyd, W. L. (1979) 'The Politics of Curriculum Change and Stability', *Educational Researcher,* 8(2), pp. 12-18.

Boyle, R.D., Neagle, R. and Efford, N. (2008) 'Evolving modes of student use - whither the VLE?' In: Cortesi, A. and Luccio, F., (eds.) *ACM-IFIP Informatics Education Europe III Proceedings. Informatics Education Europe III, December 4-5 2008, Venice, Italy*. [online] Venice, Italy, pp. 80-91. [Accessed 4 May 2019]. Available at: http://www.dsi.unive.it/IEEIII/atti/PROCEEDINGS_IEEIII08.pdf

Browne, E. (2005) 'Structural and pedagogic change in further and higher education: a case study approach', *Journal of Further and Higher Education,* 29(1), pp. 49-59.

Bruner, J. (1991) 'The narrative construction of reality', *Critical Inquiry,* 18(1).

Bruner, J. S. (1966) *Toward a theory of instruction.* Cambridge: Harvard University Press.

Bruner, J. S. (1996) *The Culture of Education.* Cambridge: Harvard University Press.

Bryman, A. (2012) *Social Research Methods.* Oxford: Oxford University Press.

Butcher, J. (2016) 'Can tablet computers enhance learning in further education?', *Journal of Further and Higher Education,* 40(2), pp. 207-226.

Callan, V. J., Johnston, M. A. and Poulsen, A. L. (2015) 'How organisations are using blended BL to deliver more flexible approaches to trade training', *Journal of Vocational Education and Training,* 67(3), pp. 294-309.

Cameron, K. S. and Quinn, R. E. (2011) *Diagnosing and Changing Organizational Culture: Based on the Competing Values Framework.* 3rd edn. San Francisco: John Wiley & Sons Inc.

Campion, M. A., Palmer, D. K. and Campion, J. E. (1998) 'Structuring Employment Interviews to Improve Reliability, Validity, and Users' Reactions', *Current Directions in Psychological Science,* 7(3), pp. 77-82.

Chappell, C. S. (1999) *The policies and discourses of vocational education and training and their impact on the information of teacher's identities.* Ph.D. thesis, University of Technology, Sydney.

Chatarajupalli , S., Venkatswamy, G. and Aryasri, A. R. (2010) 'Leveraging BL for enhancing employability of students'. In *DESE '10 Proceedings of the 2010 Developments in E-systems Engineering*, *Washington DC, USA.* Washington DC: IEEE Computer Society, pp. 107-112.

Cheung, S. K. S., Kwok, L., Ma, W. W. K., Lee, L. K. and Yang, H. (2017) 'Blended Learning. New Challenges and Innovative Practices'. In *10th International Conference, ICBL 2017, Hong Kong, China, June 27-29, 2017, Proceedings.* Hong Kong: Springer International Publishing.

Chowcat, I. et al., (2014) *A summary discussion of the use of learning technologies in further education: AoC/ALT position paper,* London: Association of Colleges.

Clandinin, D. J. (2007) *Handbook of narrative inquiry: mapping a methodology.* Thousand Oaks: Sage Publications.

Clow, R. (2001) 'Further education teachers' constructions of professionalism', *Journal of Vocational Education & Training,* 53(3), pp. 407-420.

Cohen, L., Morrison, K. and Manion, L. (2009) *Research Methods in Education.* 6th edn. Abingdon: Routledge.

Collins, (2020) *Collins Dictionary definition of blended learning.* [Online] Available at: https://www.collinsdictionary.com/dictionary/english/blended-learning [Accessed 31 May 2020].

Collinson, D. and Collinson, M. (2009) 'Blended Leadership: Employee perspectives on effective leadership in the UK Further Education sector', *Leadership,* 5(3), pp. 365-380.

Conroy, C. (2015) *AoC/SFA Elearning Academy Project 2013-2014 Final Report*, [online] Ventnor: Coralesce Limited. [Accessed 19 September 2015]. Available at: https://www.aoc.co.uk/sites/default/files/Heart%20of%20Worcestershire%20College%20end%20of%20project%20report.pdf.

Cooke, N. A. (2016) 'Information sharing, community development, and deindividuation in the eLearning domain', *Online Learning*, 20(2), pp. 244-260.

Corbridge, C., Rugg, G., Major, N. P., Shadbolt, N. R. and Burton, A. M. (1994) 'Laddering: technique and tool use in knowledge acquisition', *Knowledge Acquisition,* 6(3), pp. 315-341.

Cornelius, S. and Gordon, C. (2008) 'Providing a flexible, learner-centred programme: Challenges for educators', *The Internet and Higher Education,* 11(1), pp. 33-41.

Creswell, J. W. (2009) *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches.* London: Sage.

Crotty, M. (1998) *The Foundations of Social Research: Meaning and Perspective in the Research Process.* London: SAGE Publications.

Cummings, S., Bridgman, T. and Brown, K.G. (2016) 'Unfreezing change as three steps: Rethinking Kurt Lewin's legacy for change management', *Human Relations*, *69*(1), pp.33-60.

Czerniewicz, L. and Brown, C. (2009) 'A study of the relationship between institutional policy, organisational culture and BL use in four South African universities', *Computers & Education,* 53(1), pp. 121-131.

D'Agostino, A. & Kowalski, M., (2018) School Improvement in the Digital Age: A Study of the Alliance for Catholic Education Blended Learning Pilot. *Journal of Catholic Education,* 21(2).

Dassa, L. and Vaughan, M. (2018) 'Class Again? How education faculty engage the disengaged college student', *The Clearing House: A Journal of Educational Strategies, Issues and Ideas,* 91(1), pp. 42-45.

De los Arcos, B. et al., (2016) Adapting the Curriculum: How K-12 Teachers Perceive the Role of Open Educational Resources. *Journal of Online Learning Research,* 2(1), pp. 23-40.

Demian, P. and Morrice, J. (2012) 'The use of virtual learning environments and their impact on academic performance', *Engineering Education,* 7(1), pp. 11-19.

Derby College (n.d.) *Providing Engineers for the Future.* [online] Derby: Derby College Print Services. [Accessed 26 June 2016]. Available at: https://www.derby-college.ac.uk/documents/misc/Rolls-Royce-Case-Study-Latest.pdf.

Deschacht, N. and Goeman, K. (2015) 'The effect of BL on course persistence and performance of adult learners: A difference-in-differences analysis', *Computers & Education,* 87(1), pp. 83-89.

Dilts, R. B. (1996) *Visionary leadership skills: creating a world to which people want to belong.* Santa Cruz: Meta Publications.

Din, A.M. and Jabeen, S. (2014) 'Eliminating educational Inequality through blended learning: the case of Virtual University of Pakistan'. *Open Praxis*, 6(4), pp.321-329.

Doppler, K. and Lauterburg, C. (2013) *Managing Corporate Change.* Berlin: Springer.

Duckworth, V. and Smith, R. (2018) 'Breaking the triple lock: further education and transformative teaching and learning', *Education + Training,* (6), pp. 529.

Dunleavy, P. (2003) *Authoring a PhD: How to plan, draft, write and finish a doctoral thesis or dissertation.* 1st edn. Basingstoke: Macmillan International Higher Education.

Dyson, A. and Millward, A. (2000) *Schools and Special Needs: Issues of Innovation and Inclusion.* 1st edn. London: SAGE Publications.

Education and Training Foundation (2013) *Implementation Information Pack*. *The Education and Training Foundation* [online]. Available at: http://www.et-foundation.co.uk/downloads/deliveryplan/8-information-pack-2013-14/ile.html. (Accessed 17 November 2013).

El Hussein, M., Kennedy, A. & Oliver, B., (2017) Grounded theory and the conundrum of literature review: Framework for novice researchers. *The Qualitative Report,* April, 22(4), pp. 1199 - 1210.

Ellis, R. (2004) 'Learning Circuits: BL trends 2004', *Learning Circuits* [online] American Society for Training and Development. [Accessed 17 April 2017]. Available at http://www.learningcircuits.org/2004/nov2004/LC_Trends_2004.htm

ESRC (2012) *ESRC Framework for Research Ethics* [online]. Economic and Social Research Council. [Accessed 24 October 2013]. Available at: http://www.esrc.ac.uk/_images/Framework-for-Research-Ethics_tcm8-4586.pdf.

ETF (2014) 'Inspiring learning through technology', *Education and Training Foundation Guest Blog*. [online] 10 July 2014 [Accessed 28 January 2019] Available at: https://www.et-foundation.co.uk/blog/inspiring-learning-technology/.

European Commission (2009) *Council conclusions of 12 May 2009 on a strategic framework for European cooperation in education and training (ET 2020)*. [online]. Brussels: Council of the European Union [Accessed: 2nd January 2013]. Available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52009XG0528(01):EN:NOT

Evans, L. (2008) 'Professionalism, professionality and the development of education professionals', *British Journal of Educational Studies,* 56(1), pp. 20-38.

Evans, L. (2011) 'The 'shape' of teacher professionalism in England: professional standards, performance management, professional development and the changes proposed in the 2010 White Paper', *British Educational Research Journal,* 37(5), pp. 851-870.

Evers, N., Cunningham, J. and Hoholm, T. (2014) *Technology Entrepreneurship: Bringing Innovation to the Marketplace.* 1st edn. London: Red Globe Press.

Fee, K. (2009) *Delivering Blended learning: A Complete Strategy for Design Application and Assessment.* 1st edn. London: Kogan Page.

Felix, U. (2005) 'BL Pedagogy in the Third Millennium: The need for combining social and cognitive constructivist approaches', 17(1), pp. 85-100.

FELTAG (2014) *FELTAG: paths forward to a digital future for further education and skills*. London: Further Education Learning Technology Action Group.

Fernández-Manjón, B., Sánchez-Pérez, J. M., Gómez-Pulido, J. A., Vega-Rodríguez, M. A. and Bravo-Rodríguez, J. (2007) *Computers and Education: Blended learning, From Theory to Practice.* 1st edn. Dordrecht: Springer.

FERSG (2012) *Employee Perceptions of Further Education* [online]. London: Edge Foundation [Accessed 18 January 2015]. Available at: http://www.edge.co.uk/media/100266/fersg_5__with_cover_.pdf.

Finlayson, H., Maxwell, B., Caillou, I. and Tomalin, J. (2006) *BL in further education: the impact on student intermediate and end-point outcomes.* London: Department for Education and Skills.

Fišerová, J. (2016) 'Impact of a professional doctorate on candidates' practice and professional development'. [online]. *Semantic Scholar* [Accessed 14 July 2019]. Available at: https://pdfs.semanticscholar.org/2278/ee7f208517be48f6f2d73541c9c027be73dd.pdf

Fleming, S. and Parrack, J. (2013) Losing levels must not mean a return to localism in assessment, warn experts. *National Foundation for Educational Research in England and Wales: Latest News* [online] Available at: https://www.nfer.ac.uk/about-nfer/news/losing-levels-must-not-mean-a-return-to-localism-in-assessment-warn-experts.cfm (Accessed 5 November 2017).

Fletcher Jr, E. (2006) 'No curriculum left behind: The effects of the No Child Left Behind legislation on career and technical education', *Career and Technical Education Research,* 31(3), pp. 157-174.

Flyvbjerg, B., (2006) Five misunderstandings about case-study research. *Qualitative Inquiry*, 12(2), pp.219-245.

Foley, A. (2011) 'VET Manager identities: Culture, philosophy and professional practice', *International Journal of Training Research,* 9(3), pp. 185-203.

Forbes, D. and Khoo, E. (2015) 'Voice over distance: a case of podcasting for learning in online teacher education', *Distance Education,* 36(3), pp. 335-350.

Foucault, M. (1977) *Discipline and Punish - the birth of the prison.* Translated from the French by Alan Sheridan. New York: Pantheon.

Fullan, M. & Edwards, M., (2017) *The Power of Unstoppable Momentum : Key Drivers to Revolutionize Your District.* online: Solution Tree.

Fullan, M. (2009) 'Large-scale reform comes of age', *Journal of Educational Change,* 10(2-3), pp. 101-113.

Fullan, M. (2015) *The New Meaning of Educational Change.* 5th edn. New York: Teachers College Press.

Fullan, M. (2013) *Stratosphere: Integrating Technology, Pedagogy, and Change Knowledge.* Toronto:Pearson Education.

Gains, F. (2011) 'Elite ethnographies: potential, pitfalls and prospects for getting 'up close and personal'', *Public Administration,* 89(1), pp. 156-166.

Galvin, R. (2015) 'How many interviews are enough? Do qualitative interviews in building energy consumption research produce reliable knowledge?', *Journal of Building Engineering,* 1(1), pp. 2-12.

Garrison, D. R. (2003) BL *in the 21st Century: A Framework for Research and Practice.* 1st edn. New York: Routledge.

Glaser, B. G. and Strauss, A. L. (1967) *The discovery of grounded theory; strategies for qualitative research.* 1st edn. Chicago: Aldine Publishing Company.

Gleeson, D. and James, D. (2007) 'The paradox of professionalism in English Further Education: a TLC project perspective', *Educational Review,* 59(4), pp. 451-467.

Gleeson, D., Davies, J. and Wheeler, E. (2005) 'On the Making and Taking of Professionalism in the Further Education Workplace', *British Journal of Sociology of Education,* 26(4), pp. 445-460.

Gleeson, D., Hughes, J., O'Leary, M. and Smith, R. (2015) 'The state of professional practice and policy in the English further education system: a view from below', *Research in Post-Compulsory Education,* 20(1), pp. 78-95.

Gold, A. (2003) 'Principled principals? Values-driven leadership: evidence from ten case studies of 'outstanding' school leaders', *Educational Management Administration & Leadership,* 31(2), pp. 127-138.

Govindji, R. and Linley, P. A. (2008) *Exploring the leadership strengths of inspirational leaders in further education*. Lancaster: Lancaster University/CEL.

Graham, C. (2006) Blended Learning Systems: Definition, Current Trends, and Future Directions.. In: C. Bonk & C. Graham, eds. *The Handbook of Blended Learning: Global Perspectives, Local Designs.* San Francisco(CA): John Wiley & Sons, Inc., pp. 3-21.

Gray, D. E. (2012) *Doing Research in the Real World.* 2nd edn. London: SAGE Publications.

Great Britain. Department for Business Innovation and Skills (2011) *Skills Investment Statement 2011 to 2014: Investing in a world class skills system.* [online] London: Department for Business Innovation and Skills. [Accessed 8 February 2014]. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32374/11-1374-skills-investment-statement-2011-2014.pdf.

Great Britain. Department for Business Innovation and Skills (2012) *Developing a Guild for Further Education - Prospectus*, URN 12/988 [online]. London: Department for Business, Innovation and Skills. [Accessed 17 November 2013]. Available at: http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/d/12-988-developing-a-guild-for-further-education-prospectus.

Great Britain. Department for Business Innovation and Skills (2013) *Rigour and Responsiveness in Skills*, URN 13/960 [online]. London: Department for Education.

[Accessed 18 January 2015] Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/186830/13-960-rigour-and-responsiveness-in-skills-amended.pdf.

Great Britain. Department for Business Innovation and Skills (2014a) *Government response to the recommendations from the Further Education Learning Technology Action Group (FELTAG)*. [online]. London: Crown Publications. [Accessed 13 October 2019]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/320242/bis-14-841-government-response-to-recommendations-from-the-FELTAG-action-plan.pdf

Great Britain. Department for Business Innovation and Skills (2014b) 'The Government's Strategy to Support Workforce Excellence in Further Education'. *Further Education Workforce Strategy.* [online] London: Crown Publications. [Accessed 13 October 2019]. Available at: https://www.gov.uk/government/publications/further-education-workforce-strategy

Great Britain. Department for Business Innovation and Skills (2015a) *FELTAG Progress Report*: URN BIS/15/71. [online] London: Department for Business, Innovation and Skills. [Accessed 3 February 2019]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/405001/BIS_15_71_FELTAG_progress_report.pdf.

Great Britain. Department for Business Innovation and Skills (2015b) *An Evaluation of the Further Education Commissioner – led Intervention Process Summary Report*. [online] London: Crown Publications. [Accessed 13 October 2019]. Available at: https://dera.ioe.ac.uk//22524/.

Great Britain. Department for Business Innovation and Skills (2016a) *Department for Business Innovation and Skills - About Us*. [online]. London: Department for Business Innovation and Skills. [Accessed 5 May 2019]. Available at: https://www.gov.uk/government/organisations/department-for-business-innovation-skills/about#priorities.

Great Britain. Department for Business Innovation and Skills (2016b) *Reviewing post-16 education and training institutions - updated guidance on Area Reviews*. [online]. London: Crown Publications. [Accessed 13 October 2019]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/520838/BIS-16-118-reviewing-post-16-education-and-training-institutions-updated-guidance-on-area-reviews.pdf

Great Britain. Department for Digital, Culture, Media & Sport (2017) *Digital Skills and Inclusion: Giving everyone access to the digital skills they need.* [online] London: House of Commons. [Accessed 18 December 2018]. Available at: https://www.gov.uk/government/publications/uk-digital-strategy/2-digital-skills-and-inclusion-giving-everyone-access-to-the-digital-skills-they-need.

Great Britain. Department for Education (2013) *FE and skills participation: all ages demographic summary 2011/2012*. [online] London: Skills Funding Agency and Department for Business Innovation and Skills [Accessed 26 August 2019]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/284019/January2013_FEandSkills_Demographics.xls

Great Britain. Department for Education (2016) *Implementing the further education and skills reform programme: DfE brief on progress for FE governors and leaders.* [online] London: Department for Education. [Accessed 28 April 2019]. Available at: https://dera.ioe.ac.uk//27690/.

Great Britain. Department for Education (2017a) *Teaching Excellence and Student Outcomes Framework Specification.* [Online]. London: Department for Education. [Accessed 9 January 2019]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/658490/Teaching_Excellence_and_Student_Outcomes_Framework_Specification.pdf

Great Britain. Department for Education (2019) *FE and Skills Participation: all ages demographic summary 2015/16*. [online] London: Government Digital Service. [Accessed 26 August 2019]. Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/624362/FEandSkills-participation-demographic_summary-201516.xlsx

Great Britain. Department for Education (2019a) *Department for Education - About Us*. [online] London: Department for Education. [Accessed 5 May 2019]. Available at: https://www.gov.uk/government/organisations/department-for-education/about

Great Britain. Department for Education (2019b) *Realising the potential of technology in education: A strategy for education providers and the technology industry.* [online] London: Department for Education [Accessed 6 May 2019]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/792144/10860-DfE-Education_Technology_Strategy-SUMMARY_Accessible.pdf

Great Britain. Department for Education (2019c) *Disability Rights.* [online]. London: Crown Digital Service. [Accessed 6 May 2019]. Available at: https://www.gov.uk/rights-disabled-person/education-rights

Great Britain. Science and Technology Select Committee (2016) *Digital Skills in Schools* [online] London: House of Commons. [Accessed 18 December 2018]. Available at: https://publications.parliament.uk/pa/cm201617/cmselect/cmsctech/270/27006.htm

Great Britain. Skills Funding Agency (2017). *Further Education and Skills in England March 2017* [online]. London: Office of National Statistics. [Accessed 17 April 2017]. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/601585/SFR13-2017.pdf.

Great Britain. Social Mobility Commission (SMC) (2019) *Adults skills gap.* [online]. London: Social Mobility Commission. [Accessed 28 April 2019]. Available at: https://www.gov.uk/government/news/adults-skills-gap.

Great Britain. Department for Business Innovation and Skills (2012) *Evaluation of FE Teachers' Qualifications (England) Regulations 2007*, research paper number 66 [online]. London: Department for Business Innovation and Skills. [Accessed 18 January 2014]. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32302/12-693-evaluation-fe-teachers-qualifications-regulations.pdf

Great Britain. Quality Assurance Agency (2015). *College Higher Education Toolkit*. Gloucester: Quality Assurance Agency.

Greatbatch, D. and Tate, S. (2018) *Teaching, leadership and governance in Further Education*, London: Crown.

Green, R. & Whitburn, L. (2016) Impact of introduction of blended learning in gross anatomy on student outcomes. *American Association of Anatomists,* Issue 9, pp. 422-430.

Greener, I. (2011) *Designing social research : a guide for the bewildered.* 1st edn. Los Angeles; London: SAGE.

Griggs, J., Scandone, B. and Batterham, J. (2018) *How employable is the UK?* [online] London: National Centre for Social Research. [Accessed 26 May 2019]. Available at: https://home.barclays/content/dam/home-barclays/documents/news/2018/Barclays%20Lifeskills%20report_v10.pdf.

Gross, N. C., Giacquinta, J. B. and Bernstein, M. (1971) *Implementing organizational innovations: A sociological analysis of planned educational change.* New York: Basic Books.

Guba, E. G. and Lincoln, Y. S. (1994) 'Competing Paradigms in Qualitative Research', in Denzin, N.K. and Lincoln, Y.S. (eds.) *Handbook of Qualitative Research*. Thousand Oaks: Sage, pp. 105-117.

Guskey, T. R. and Peterson, K. D. (1995) 'The road to classroom change', *Educational Leadership,* 53(4), pp. 10.

Guthrie, K., Griffiths, R. and Maron, N. (2008) *Sustainability and revenue models for online academic resources* [online]. New York: Ithaka. [Accessed 9 September 2019]. Available at: https://sr.ithaka.org/publications/sustainability-and-revenue-models-for-online-academic-resources/.

Hammersley, M. (1992) 'Some reflections on ethnography and validity', *Qualitative studies in education,* 5(3), pp. 195-203.

Hammersley-Fletcher, L. (2004) 'Evaluating our peers: Is peer observation a meaningful process?', *Studies in Higher Education,* 29(4), pp. 489-503.

Hancock, M. (2014) *Government Outlines how technology can benefit further education*. [online]. London: Department of Business Innovation and Skills. [Accessed 12 December 2018]. Available at: https://www.gov.uk/government/news/government-outlines-how-technoogy-can-benefit-further-education

Hannagan, T. (2006) 'Leadership and environmental assessment in further education', *Journal of Further and Higher Education,* 30(4), pp. 325-335.

Hawley, M. (2009) *Laddering: A research interview technique for uncovering core values*. [online] Silicon Valley: UXMatters. [Accessed: 9 June 2019]. Available at: https://www.uxmatters.com/mt/archives/2009/07/laddering-a-research-interview-technique-for-uncovering-core-values.php.

Heath, V. (2012) *Lord Lingfield champions more freedom for further education*. [online]. London: Department of Business Innovation and Skills. [Accessed 4 February 2014]. Available at: https://www.gov.uk/government/news/lord-lingfield-champions-more-freedom-for-further-education

HEFCE (2015) *Higher Education in England 2015* [online]. Bristol: HEFCE. [Accessed 31 May 2016]. Available at: http://www.hefce.ac.uk/analysis/HEENG/.

Henderson, M., Selwyn, N. & Aston, R. (2017) What works and why? Student perceptions of 'useful' digital technology in university teaching and learning. *Studies in Higher Education,* 42(8), pp. 1567-1579.

Herzog, H. (2012) Interview Location and its Social Meaning. In: J. Gubrium, J. Holstein & A. Marvasti, eds. *The SAGE Handbook of Interview Research: The Complexity of the Craft.* Thousand Oaks: SAGE Publications, pp. 207-218.

Hills, H. and Overton, L. (2010) *Why Do eLearning Projects Fail?* [online]. London: Association of Colleges. [Accessed 31 March 2019]. Available at: https://www.aoc.co.uk/sites/default/files/Why_Elearning_Projects_Fail.pdf.

Hopkins, D., Ainscow, M. and West, M. (1994) *School improvement in an era of change.* 1st edn. London: Cassell PLC.

Hosack, B., Lim, B. and Vogt, W. P. (2012) 'Increasing student performance through the use of Web services in introductory programming classrooms: results from a series of quasi-experiments', *Journal of Information Systems Education,* 23(4), pp. 373.

Huberman, A. M., Miles, M. B. and Miles, M. N. (1984) *Innovation up close: How school improvement works.* Berlin: Springer Science & Business Media.

Huddleston, P. and Unwin, L. (2013) *Teaching and Learning in Further Education: Diversity and Change.* 3rd edn. Abingdon: Routledge.

Hung, H.T. and Yuen, S. C.Y. (2010) 'Educational use of social networking technology in higher education', *Teaching in Higher Education,* 15(6), pp. 703-714.

Hyland, T. and Merrill, B. (2001) 'Community, Partnership and Social Inclusion in Further Education', *Journal of Further and Higher Education,* 25(3), pp. 337-348.

Jephcote, M. and Salisbury, J. (2009) 'Further education teachers' accounts of their professional identities', *Teaching and Teacher Education,* 25(7), pp. 966-972.

JISC (2004) *Effective Practice with BL* [online]. Bristol: University of Bristol. [Accessed 16 February 2017]. Available at: http://webarchive.nationalarchives.gov.uk/20140702233839/http:/www.jisc.ac.uk/media/documents/publications/effectivepracticeelearning.pdf.

JISC (2015) *Enhancing the student digital experience: a strategic approach* [online]. Bristol: JISC. [Accessed 18 December 2018]. Available at: https://www.jisc.ac.uk/full-guide/enhancing-the-digital-student-experience.

Johnson, G., Scholes, K. and Whittington, R. (2008) *Exploring Corporate Strategy: Text & Cases.* New Jersey: Prentice Hall.

Jones, R. (2015) 'ATL Survey reveals 85% of FE staff consider quitting their role due to workload', *FE Week*.

Jung, K.S. and Kim, K.J. (2006) 'Factors influencing the learning effectiveness and transfer of BL in business organizations', *The Journal of Information Systems,* 15(2), pp. 1-29.

Kaniuka, T. (2012) 'Toward an understanding of how teachers change during school reform: Considerations for educational leadership and school improvement', *Journal of Educational Change,* 13(3), pp. 327-346.

Kanuka, H. and Rourke, L. (2008) 'Exploring amplifications and reductions associated with e-learning: conversations with leaders of e-learning programs', *Technology, Pedagogy and Education,* 17(1), pp. 5-15.

Karnieli-Miller, O., Strier, R. and Pessach, L. (2009) 'Power relations in qualitative research', *Qualitative health research,* 19(2), pp. 279-289.

Keep, A. W. (2018). 'FE colleges in England and the skills policy agenda', in Gallacher, J. and Reeve, F. (ed.) *New Frontiers for College Education: International Perspectives.* Abingdon: Routledge.

Kemmis, R. and Green, A. (2013) 'Vocational education and training teachers' conceptions of their pedagogy', *International Journal of Training Research,* 11(2), pp. 101-121.

Kenney, J. & Newcombe, E. (2011) Adopting a blended learning approach: challenges encountered and lessons learned in an action research study. *Journal of Asynchronous Learning Networks,* 15(1).

Kent, M., Ellis, K. and Giles, M. (2018) 'Students with Disabilities and eLearning in Australia: Experiences of accessibility and disclosure at Curtin University', *TechTrends: Linking Research and Practice to Improve Learning,* 62(6), pp. 654-663.

Kewin, J. (2018) 'We must tell the chancellor FE needs more, not less funding', *FE Week* [online] 1/8/2018. [Accessed 27 April 2019]. Available at: https://feweek.co.uk/2018/08/01/we-must-tell-the-chancellor-fe-needs-more-not-less-funding/.

Kezar, A. (2012) 'Bottom-up/top-down leadership: Contradiction or hidden phenomenon', *The Journal of Higher Education,* 83(5), pp. 725-760.

Khan, M. S. and Markauskaite, L. (2017) 'Approaches to ICT-enhanced teaching in technical and vocational education: a phenomenographic perspective', *Higher Education,* 73(5), pp. 691-707.

Kineo (2013) *BL - current use, challenges and best practices* [online]. Brighton: Kineo [Accessed 17 April 2017]. Available at: http://www.kineo.com/resources/papers-and-guides/learning-strategy-and-design/blended-learning-report.

King, E. and Boyatt, R. (2015) 'Exploring factors that influence adoption of e-learning within higher education', *British Journal of Educational Technology,* 46(6), pp. 1272-1280.

Kinman, G. and Wray, S. (2014) 'Taking its toll: rising stress levels in further education', *University and College Union*.

Koerber, A. and McMichael, L. (2008) 'Qualitative Sampling Methods: A Primer for Technical Communicators', *Journal of Business and Technical Communication,* 22(4), pp. 454-473.

Kolb, A., Kolb, D., Passarelli, A. and Sharma, G. (2014) 'On Becoming an Experiential Educator', *Simulation & Gaming,* 45(2), pp. 204-234.

Kolb, D. A. (1984) *Experiential learning: experience as the source of learning and development.* Prentice-Hall.

Kong, S. C. (2019) 'Partnership among schools in BL implementation: Implications on elements for sustainable development', *Journal of Educational Technology & Society,* 22(1), pp. 28-43.

Kotter, J. P. (1996) *John P. Kotter on What Leaders Really Do.* Brighton: Harvard Business Review Press.

Kotter, J. P. and Cohen, D. S. (2012) *The Heart of Change: Real-Life Stories of How People Change Their Organizations.* Brighton: Harvard Business Review Press.

Kuhlmann, T. (2011) '3 Simple Ways to Measure the Effectiveness of eLearning', *The Rapid eLearning Blog* [online] 19 July 2011. [Accessed 17 April 2017]. Available at: http://blogs.articulate.com/rapid-elearning/3-simple-ways-to-measure-the-success-of-your-blended learning/.

L. McNutt and M. Brennan, 'Work in Progress - Learning Styles and eLearning, what is the Connection?', *Proceedings - Frontiers in Education 35th Annual Conference, October 19 – 22, 2005 Indianapolis, Indiana.* Indianapolis: Frontiers in Education (FIE). doi: 10.1109/FIE.2005.1612037

Lambert, S. (2011) 'Sustainable leadership and the implication for the general further education college sector', *Journal of Further and Higher Education,* 35(1), pp. 131-148.

Lavin, A., Korte, L. and Davies, T. (2010) 'The impact of classroom technology on student behaviour ', *Journal of Technology Research,* 2.

Law, P. (2015) 'Recognising informal learning with digital badging', *Open Praxis*, 7(4), pp. 299-310.

Lawson, E. and Price, C. (2003) 'The Psychology of Change Management', *McKinsey Quarterly,* (June 2003).

Lawson, L. and Sorenson, J. (201l0) 'When Overwhelming Needs Meet Underwhelming Prospects', *Insurgent Public Space: Guerrilla Urbanism and the Remaking of Contemporary Cities*.

Levacic, R. and Glatter, R. (1997) 'Managing Change in Further Education', *Developing FE (FEDA Report),* 1(7), pp. n7.

Lewin, K. (1947) 'Frontiers in Group Dynamics: Concept, Method and Reality in Social Science; Social Equilibria and Social Change', *Human Relations,* 1(1), pp. 5-41.

Lingfield, R., Sherlock, D., Ward, D., Wright, D. and Morris, A. (2012) *Professionalism in Education: Final Report of the Independent Review Panel* [online] London: Department for Further Education, Skills and Lifelong Learning [Accessed 22 February 2013]. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/34641/12-1198-professionalism-in-further-education-final.pdf.

Lonn, S. and Teasley, S. D. (2009) 'Saving time or innovating practice: Investigating perceptions and uses of Learning Management Systems', *Computers & Education,* 53(3), pp. 686-694.

Louis, K. S. and Miles, M. B. (1990) *Improving the Urban High School: What Works and Why.* New York: Teachers College Press.

Love, B., Hodge, A., Grandgenett, N. and Swift, A. W. (2014) 'Student learning and perceptions in a flipped linear algebra course', *International Journal of Mathematical Education in Science and Technology,* 45(3), pp. 317-324.

Lukacs, K. S. and Galluzzo, G. R. (2014) 'Beyond empty vessels and bridges: toward defining teachers as the agents of school change', *Teacher Development,* 18(1), pp. 100-106.

Luthans, F. (1988) 'Successful vs. effective real managers', *The Academy of Management Executive,* 2(2), pp. 127-132.

MacDonald, C. J. and Thompson, T. L. (2005) 'Structure, content, delivery, service, and outcomes: Quality BL in higher education', *The International Review of Research in Open and Distributed Learning,* 6(2).

Macdonald, D. (2004) 'Curriculum change in Health and Physical Education: The devil's perspective', *Journal of Physical Education New Zealand,* 37.

Marshall, S. (2012) 'Improving the quality of blended learning: lessons from the eMM', *Journal of Computer Assisted Learning,* 28(1), pp. 65-78.

Marton, F. (1994) 'The idea of phenomenography'. *Proceedings of Phenomenography: philosophy and practice 7 – 9 November 1994, Brisbane, Australia.* Kelvin Grove: Queensland University of Technology.

Marton, F. and Pong, W. Y. (2005) 'On the unit of description in phenomenography', *Higher education research & development,* 24(4), pp. 335-348.

Maruping, L. M., Bala, H., Venkatesh, V. and Brown, S. A. (2017) 'Going beyond intention: Integrating behavioral expectation into the unified theory of acceptance and use of technology', *Journal of the Association for Information Science and Technology,* 68(3), pp. 623-637.

Mather, K. and Seifert, R. (2014) 'The close supervision of further education lecturers: 'You have been weighed, measured and found wanting'', *Work, Employment & Society,* 28(1), pp. 95-111.

Mayes, T. and de Freitas, S. (2004). 'Review of BL theories, frameworks and models'. *JISC BL models study report*. London: The Joint Systems Information Committee.

McGill, T. J., Klobas, J. E. and Renzi, S. (2014) 'Critical success factors for the continuation of BL initiatives', *The Internet and Higher Education,* 22(3), pp. 24-36.

McLean, J. (2005) 'Addressing Faculty Concerns about Distance Learning', *Online Journal of Distance Learning Administration,* 8(4).

McNichol, S., Dalton, P., Thebridge, S. and Hartland-Fox, R. (2006) 'Evaluating Focus Groups', *eValued - Evaluation toolkit for e-Libraries*, Birmingham: Birmingham City University.

McPhail, G. (2012) 'From Singular to Over-Crowded Region: Curriculum Change in Senior Secondary School Music in New Zealand', *British Journal of Music Education,* 29(3), pp. 317-330.

Medina, L. (2018) Blended Learning: Deficits and prospects in higher education. *Australasian Journal of Educational Technology,* 34(1), pp. 42-56.

Merriam, S. B. (2009) *Qualitative Research: A Guide to Design and Implementation.* 1st edn. San Francisco: John Wiley & Sons.

Meyerson, D. E. (2001) 'Radical change, the quiet way', *HBR's 10 Must Reads on Change*, pp. 39.

Mihalicz, D. (2012) 'The importance of organizational effectiveness', *Effective Managers* [online] 1 October 2012. [Accessed 12 May 2017]. Available at: http://www.effectivemanagers. com/dwight-mihalicz/the-importance-of-organizational-effectiveness.

Miller, G. & Ives, K. (2020) *Leading the eLearning Transformation of Higher Education: Leadership Strategies for the Next Generation.* 1 ed. Sterling: Stylus Publishing LLC.

Milton, A. (2018) *Association of Colleges Conference* [Interview] (23 November 2018).

Moore, J. L., Dickson-Deane, C. and Galyen, K. (2011) 'blended learning, online learning, and distance learning environments: Are they the same?', *The Internet and Higher Education,* 14(2), pp. 129-135.

Morgan, D. L. (1993) *Successful Focus Groups: Advancing the State of the Art.* 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.

Moule, P., Ward, R. and Lockyer, L. (2011) 'Issues with BL in nursing and health education in the UK: Are new technologies being embraced in the teaching and learning environments?', *Journal of Research in Nursing,* (1), pp. 77.

Muijs, D., Harris, A., Lumby, J., Morrison, M. and Sood, K. (2006) 'Leadership and leadership development in highly effective further education providers. Is there a relationship?', *Journal of Further and Higher Education,* 30(1), pp. 87-106.

Mwakyusa, W. P. and Mwalyagile, N. V. (2016) 'Impediments of BL Adoption in Higher Learning Institutions of Tanzania: An Empirical Review', *Journal of Education and Practice,* 7(30), pp. 152-160.

Natia, J. and Al-hassan, S. (2015) 'Promoting teaching and learning in Ghanaian Basic Schools through ICT', *International Journal of Education and Development using ICT,* 11(2).

Nedeva, V., Dimova, E. and Dineva, S. (2010) 'Overcome disadvantages of BL for training English as foreign language', *University of Bucharest and University of Medicine and Pharmacy Târgu-Mures*, pp. 275-281.

Nguyen, V. A. (2017) The Impact of Online Learning Activities on Student Learning Outcome in Blended Learning Course. *Journal of Information & Knowledge Management,* 16(4).

NIACE (2016) *Final Report to the Skills Funding Agency on the actions arising from the FELTAG Report.* [online]. London: Skills Funding Agency. [Accessed 6 April 2019]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/541111/ONLINE_LEARNING_REPORT_Exec_summary_learning_tech_report.pdf

Northampton University (2017) *Distance Learning*. [online] Northampton: University of Northampton. [Accessed 20 March 2017]. Available at: http://www.northampton.ac.uk/study/distancblended learning/.

Nortvig, A.-M., Petersen, A. K. & Balle, S. H. (2018) A Literature Review of the Factors Influencing E-Learning and Blended Learning in Relation to Learning Outcome, Student Satisfaction and Engagement. *The Electronic Journal of eLearning,* 16(1), pp. 46-55.

O' Shea, S., Stone, C. and Delahunty, J. (2015) '"I 'feel' like I am at university even though I am online." Exploring how students narrate their engagement with higher education institutions in an online learning environment', *Distance Education,* 36(1), pp. 41-58.

O'Connor, J. (2019) Document Analysis. In: M. Lambert, ed. *Practical Research Methods in Education: An Early Researcher's Critical Guide.* Abingdon: Routledge, pp. 67-75.

OECD (2010) *Education Today 2010: The OECD Perspective.* Paris: OECD Publishing.

OECD (2017) *OECD Social and Welfare Statistics: Income Distribution (Gini Coefficient, European Union)*. [online] Paris: OECD. [Accessed 27 May 2019]. Available at: https://data.oecd.org/inequality/income-inequality.htm.

Ofsted (2009) *Virtual learning environments: an evaluation of their development in a sample of educational settings*. [online] London:Office for Standards in Education, Children's Services and Skills (OFSTED). [Accessed 4 May 2019]. Available at: https://dera.ioe.ac.uk//325/.

Ofsted (2013) *Learning and Skills Inspection Report 408428.* [online] London: Office for Standards in Education, Children's Services and Skills (OFSTED). [Accessed 9 February 2014]. Available at: https://files.api.ofsted.gov.uk/v1/file/2193809.

Ofsted (2017) *Learning and Skills Inspection Report.* [online] London: Office for Standards in Education, Children's Services and Skills (OFSTED). [Accessed 24 June 2017]. Available at: https://files.api.ofsted.gov.uk/v1/file/2711305

Ofsted (2019) *Learning and Skills Inspection Handbook.* [online] London: Office for Standards in Education, Children's Services and Skills (OFSTED). [Accessed 26 August 2019]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/828211/ Further_education_and_skills_inspection_handbook.pdf

ONS (2019) *Young people not in education, employment or training (NEET) UK February 2019* [online] London: Office for National Statistics. [Accessed 6 May 2019]. Available at: https://www.ons.gov.uk/employmentandlabourmarket/peoplenotinwork/unemployment/bulletins/youngpeoplenotineducationemploymentortrainingneet/february2019.

Orr, K. 'Professionalism and performativity in the English Further Education sector: three longitudinal case studies', *British Educational Research Association Annual Conference Manchester, 6 September 2012*, Manchester: University of Manchester.

Osborne, S. P. and Brown, L. (2013) *Handbook of innovation in public services.* Cheltenham: Edward Elgar Publishing.

Otty, A. (2017) 'For many, colleges are not a second chance, but their only real chance', *TES News*. [online] 20 December 2017. [Accessed 6 May 2019] Available at: https://www.tes.com/news/many-colleges-are-not-second-chance-their-only-real-chance.

Page, D. (2014) 'Desirable organisational masculinities: competition and entrepreneurialism in schools of construction in further education colleges', *British Journal of Sociology of Education,* 35(6), pp. 895-913.

Palmer, E., Lomer, S. & Bashliyska, I. (2017) *Overcoming barriers to student engagement with Active Blended Learning,* Northampton: University of Northampton.

Panopto (2019) *What is Blended Learning?.* [Online]
Available at: https://www.panopto.com/blog/what-is-blended-learning/
[Accessed 31 May 2020].

Paulson, E. N. and Campbell, N. (2018) 'Collective Approaches to ePortfolio Adoption: Barriers and opportunities in a large Canadian university', *The Canadian Journal for the Scholarship of Teaching and Learning,* 9(3).

Pavlov, I. P. (2013) *Conditioned Reflexes and Psychiatry - Lectures on Conditioned Reflexes.* Redditch: Read Books Limited.

Pearce, C. L. and Conger, J. A. (2003) 'All those years ago', *Shared leadership: Reframing the hows and whys of leadership*, pp. 1-18.

Pennacchia, J., Jones, E. and Aldridge, F. (2018). *Barriers to learning for disadvantaged groups*. London*:* Department for Education.

Pierce, D. (2017) *What Effective Blended Learning Looks Like.* [Online]
Available at: https://thejournal.com/articles/2017/01/11/what-effective-blended-

learning-looks-like.aspx
[Accessed 9 June 2020].

Porter, W. & Graham, C., (2015). Institutional drivers and barriers to faculty adoption of blended learning in higher education. *British Journal of Educational Technology,* 47(4).

Poulova, P. and Klimova, B. (2015). Smart Learning: Are We Ready for It? *International Association for Development of the Information Society (IADIS) International Conference on Cognition and Exploratory Learning in the Digital Age (CELDA) October 24-26, Maynooth, Greater Dublin.* Dublin: International Association for Development of the Information Society.

Powell, A. (2018) *NEET: Young people not in education, employment or training.* [online] London: House of Commons Library [Accessed 6 May 2019]. Available at: https://researchbriefings.parliament.uk/ResearchBriefing/Summary/SN06705.

Quinn, J. & Fullan, M., (2017). Coherence Making: Whole System Change Strategy. In: H. Janc Malone, S. Rincon-Gallardo & K. Kew, eds. *Future Directions of Educational Change: Social Justice, Professional Capital, and Systems Change.* s.l.:Routledge.

Ravenhall, M. (2014) 'Poor research on further education makes it easy to cut funding', *The Guardian* [online] 31 August 2014. [Accessed 28 April 2019]. Available at: https://www.theguardian.com/education/2014/aug/31/poor-research-further-education-government-funding-cut.

Reynolds, D., Treharne, D. and Tripp, H. (2003) 'ICT—the hopes and the reality', *British Journal of Educational Technology,* 34(2), pp. 151-167.

Reynolds, T. J. and Gutman, J. (2001) 'Laddering theory, method, analysis, and interpretation', *Understanding consumer decision making: The means-end approach to marketing and advertising strategy*, pp. 25-62.

Robertson, M., Swan, J. and Newell, S. (2007) 'The Role of Networks in the Diffusion of Technological Innovation ', *Journal of Management Studies,* 33(3), pp. 333-359.

Rogers, E. M. (1995) *Diffusion of Innovations.* New York: Free Press.

Rothwell, W. J., Butler, M. N., Hunt, D. L., Li, J., Maldonado, C. and Peters, K. (2010) *The Handbook of Training Technologies: An Introductory Guide to Facilitating Learning with Technology--From Planning Through Evaluation.* San Francisco: John Wiley & Sons.

Salajan, F. D. and Roumell, E. A. (2015) 'Two Decades of BL Policy Evolution at EU Level: motivations, institutions and instruments', *European Journal of Education.*

Satell, G. (2019) '4 Tips for Managing Organizational Change', *Harvard Business Review*, (August 2019).

Schatzki, T. R. (2012) 'A primer on practices: Theory and research', *Practice-based Education*, pp. 13-26.

Scott, K. M. (2016) 'Change in university teachers' eLearning beliefs and practices: a longitudinal study', *Studies in Higher Education,* 41(3), pp. 582-598.

Shepherd, C. (2013) *The Really Useful eLearning Instruction Manual: Your toolkit for putting elearning into practice.* San Francisco: John Wiley and Sons.

Sibley, R. (2013) *The impact of BL and social media and next generation professional roles in teaching and learning*, [online] London: Education and Training Foundation. [Accessed 19 September 2015]. Available at: http://www.excellencegateway.org.uk/content/eg6282.

Siemens, G. (2005) 'Connectivism: A learning theory for the digital age', *International Journal of Instructional Technology and Distance Learning,* 2(1).

Silverman, D. (2010) *Qualitative Research.* London: SAGE Publications.

Singh, G. and Hardaker, G. (2014) 'Barriers and enablers to adoption and diffusion of eLearning : A systematic review of the literature – a need for an integrative approach', *Education and Training,* 56(2-3), pp. 105-121.

Skinner, B. (1936) 'Conditioning and extinction and their relation to drive', *The Journal of General Psychology,* 14(2), pp. 296-317.

Smith, R. (2015) 'College re-culturing, marketisation and knowledge: the meaning of incorporation', *Journal of Educational Administration and History,* 47(1), pp. 18-39.

Sorenson, E. B. and Askegaard, S. (2007) 'Laddering: How (not) to do things with words', *Qualitative Market Research,* 10(1), pp. 63-77.

Stacey, P. (2012) 'The Economics of Open', *Musings on the EdTech Frontier* [online] 4 March 2012. [Accessed 1 June 2016]. Available at: https://edtechfrontier.com/2012/03/04/the-economics-of-open/.

Statista (2018) *Share of children who regularly used mobile phones in the UK from 2014 to 2017 by age*. [online]. Hamburg: Statista. [Accessed 20 May 2018]. Available at: https://www.statista.com/statistics/398283/children-regular-use-of-mobile-phones-by-age-uk/.

Stockwell, B. R., Stockwell, M. S., Cennamo, M. and Jiang, E. (2015) 'BL Improves Science Education', *Cell (Science Direct),* 162(5), pp. 933-936.

Stoloski, K. (2014) *In Principal We Trust: A Qualitative Study Exploring the Lived Experience of Beginning Catholic School Principals Establishing Trust with Teachers.* Ph.D. thesis, Plymouth State University. Abstract only. [Accessed 3 January 2015] Available at: http://www.academia.edu/9599721/AN_ABSTRACT_OF_THE_DISSERTATION_OF_Title_In_Principal_We_Trust_A_Qualitative_Study_Exploring_the_Lived_Experience_of_Beginning_Catholic_School_Principals_Establishing_Trust_with_Teachers._Abstract_approved.

Strauss, A. and Corbin, J. M. (1998) *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory.* London: SAGE Publications.

Talerico, D. (2012) *Privacy and Confidentiality: Issues in Research.* [online] Providence: Brown University. [Accessed 17 March 2014]. Available at: https://www.brown.edu/research/research-ethics/teaching-materials-presentations/teaching-materialspresentations.

Tan, P. (2015) 'English BL in the virtual classroom and the factors that influence ESL (English as a Second Language): Taiwanese citizens' acceptance and use of the

Modular Object-Oriented Dynamic Learning Environment', *Social Science Information (Information sur les Sciences Sociales),* 54(2), pp. 211-228.

TeachThought (2020) *The Definition of Blended Learning.* [Online]
Available at: https://www.teachthought.com/learning/the-definition-of-blended-learning/
[Accessed 31 May 2020].

Thomas, J. and Willcoxson, L. (1998) 'Developing teaching and changing organisational culture through grass-roots leadership', *Higher Education,* 36(4), pp. 471-485.

Thompson, C. & Wolstencroft, P. (2019) Empowerers, Inspirers, Knowledge Providers # living the dream. In: B. Merrill, et al. eds. *Exploring Learning Contexts: Implications for Access, Learning Careers and Identities.* Rennes: University of Rennes.

Thompson, C. and Wolstencroft, P. (2012) 'A year on the frontline: Despatches from new FE teachers', *Journal of Pedagogic Development*.

Thompson, T. L. and MacDonald, C. J. (2005) 'Community building, emergent design and expecting the unexpected: Creating a quality eLearning experience', *The Internet and Higher Education,* 8(3), pp. 233-249.

Thomson, S. B. (2011) 'Sample size and grounded theory', *Journal of Administration and Governance (JOAAG),* 5(1), pp. 45-52.

Tie, Y. C., Birks, M. & Francis, K. (2019) *Grounded theory research: A design framework for novice researchers,* s.l.: s.n.

Tomlinson, P. (1989) 'Having It Both Ways: Hierarchical focusing as a research interview method', *British Educational Research Journal,* 15(2), pp. 155-176.

Tripp, A., Bell, C., Gray, M. and Langlands, A. (2003) *Joint SFEFC/SHEFC BL Group: Final Report*, [online]. Edinburgh: Scottish Further and Higher Education Funding Council. [Accessed 16 February 2017]. Available at: http://www1.hw.ac.uk/committees/ltb/BackgroundPapers/2003-2004/SHEFC_EL/SHEFCelearnreportJuly2003.pdf.

UNESCO (2018) *UNEVOC: Promoting learning for the world of work*. [online]. Paris: UNESCO. [Accessed 2 September 2018]. Available at: https://unevoc.unesco.org/go.php?q=About+UNEVOC.

UNICEF (2013) *Providing children with a quality basic education*. [online] New York: UNICEF. [Accessed 24 February 2013]. Available at: http://www.unicef.org/myanmar/education.html.

Uys Philip (2007) 'Enterprise-wide technological transformation in higher education; the LASO model', *International Journal of Educational Management*. no. 3, p. 238.

Valk, J.-H., Rashid, A. T. and Elder, L. (2010) 'Using mobile phones to improve educational outcomes: An analysis of evidence from Asia', *The International Review of Research in Open and Distributed Learning,* 11(1), pp. 117-140.

van de Oudeweetering, K. and Agirdag, O. (2018) 'MOOCS as accelerators of social mobility? A systematic review', *Journal of Educational Technology & Society,* 21(1), pp. 1-11.

Venkatesh, V., Morris, M.G., Davis, G.B. and Davis, F.D. (2003) 'User acceptance of information technology: Toward a unified view'. *MIS quarterly*, pp.425-478.

Vygotsky, L. S. (1980) *Mind in Society: The Development of Higher Psychological Processes.* Reprint. Cambridge: Harvard University Press.

Wakeling, V., Doral, M., Robertson, P. R. and Patrono, M. (2018) 'Perceptions of undergraduate students of student-regulated online courses', *Online Journal of Distance Learning Administration,* 21(3).

Wallace, M. and Hoyle, E. (2005) 'Towards Effective Management of a Reformed Teaching Profession', paper presented to the ESRC TLRP thematic series 'Changing Teacher Roles''. *Identities and Professionalism, Kings College,* London:ESRC, p5.

Warshaw, P. R. and Davis, F. D. (1985) 'The accuracy of behavioral intention versus behavioral expectation for predicting behavioral goals', *The Journal of psychology,* 119(6), pp. 599-602.

Watson, J. B. (1913) 'Psychology as the behaviorist views it', *Psychological Review,* 20(2), pp. 158.

Wenger, E. (2000) 'Communities of Practice and Social Learning Systems', *Organization,* 7(2), pp. 225-246.

West, C., Stewart, L., Foster, K. and Usher, K. (2013) 'Accidental insider: Living the PhD study', *Collegian: Journal of the Royal College of Nursing Australia,* 20(1), pp. 61-65.

Westerveld, E. (2003) 'The Project Excellence Model: linking success criteria and critical success factors', *International Journal of Project Management,* 21(6), pp. 411-418.

Wideen, M. F. and Pye, I. (1994) *The Struggle for Change: The Story of One School.* Basingstoke: Falmer Press.

Windschitl, M. (2002) 'Framing Constructivism in Practice as the Negotiation of Dilemmas: An Analysis of the Conceptual, Pedagogical, Cultural, and Political Challenges Facing Teachers', *Review of Educational Research,* 72(2), pp. 131-175.

Wright, N. (2011) 'Between 'Bastard' and 'Wicked' leadership? School leadership and the emerging policies of the UK Coalition Government', *Journal of Educational Administration and History*, 43(4), pp.345-362, DOI: 10.1080/00220620.2011.606893

Yap, M. H. T., Jung, T. H. and Kisseleff, J. (2015) 'Educators' perspectives of eLearning in Swiss private hospitality institutions', *Journal of Hospitality & Tourism Education,* 27(4), pp. 180-187.

Yin, R. K. (2009) *Case Study Research: Design and Methods.* London: SAGE Publications.

Young, A. and Norgard, C. (2006) 'Assessing the quality of online courses from the students' perspective', *The Internet and Higher Education,* 9(2), pp. 107-115.

Zhu, C. (2015) 'Organisational culture and technology-enhanced innovation in higher education', *Technology, Pedagogy and Education,* 24(1), pp. 65-79.