Running head: AN INVESTIGATION OF THE CONNECTION BETWEEN LEARNING SPACES AND STUDENT LEARNING EXPERIENCES

# An investigation of the connection between learning spaces and student learning experiences on blended learning courses in a Higher Education Institute in Ireland

Thesis submitted in accordance with the requirements of The University of Liverpool for the degree of Doctor of Education by

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# Abstract

As a Higher Education (HE) practitioner for nearly two decades, I have developed a keen interest in the learning experiences of my students especially in blended learning programmes, which are relatively new to my current institute. The purpose of undertaking this study was to investigate the connection between learning spaces and student learning experiences in a Higher Education Institute (HEI) in Ireland. In this study, an interpretivist paradigm was applied, and I utilised a qualitative methodological approach to collect the data. Sixteen participants were interviewed, all of whom were enrolled in a three-year residential blended learning programme and were drawn from all years. A thematic analysis was applied to the data that was collected in this study. Four themes emerged from the findings of the participants, including learning, engagement, learning spaces, and programme delivery. The participants revealed that they made use of the different learning spaces available to them, both on and off campus. They commented on the importance of maintaining engagement throughout and provided an insight into how the programme was delivered and the impact this had on their overall learning experiences. Finally, the participants indicated which learning spaces they preferred to use and how these spaces impacted their learning throughout their time on the programme. An in-depth analysis of the finding enabled me to identify several recommendations for future practice in HE in Ireland. Firstly, it is important to undertake a dialogue around learning spaces as a whole. Secondly if senior managers are contemplating developing a blended learning policy for their institute, they should consider Lim et al.'s (2019) framework for the Strategic Planning of Blended Learning and my own Four Elements Framework of Blended Learning. These could help to highlight important issues that they should address when devising or reframing policy.

This study contributes significantly to the literature on learning spaces and student learning experiences, particularly in Ireland where there is a paucity of research exploring this area especially in relationship to blended learning.

In addition, given that the use of blended learning is increasing across all HEIs in Ireland, this study may also be of significant value to both management and practitioners.

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# Acknowledgement

I would like to express my gratitude to those who have helped me along my doctoral journey. A sincere thanks to my wonderful primary supervisor Dr. Iona Burnell for all her valued guidance and support which motivated me to complete my doctoral thesis. To my secondary supervisor Dr. Anthony Edwards who provided me with valuable feedback and support with my thesis. To my tutors that provided great support and advice throughout the structured element of this doctoral programme. Thanks to all my friends and colleagues especially, Catherine, Donnacha, Gerry, Kristin, Muiris, Nora, Orla and Ray for all your encouragement and understanding.

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Finally a sincere thanks to all my interview participants who gave me their time and provided me with rich insights into their learning and use of learning spaces while enrolled in their blended learning programme.

# List of Tables, Figures and Acronyms

## List of Tables



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## List of Acronyms

| | |
|---|---|
| HEI | Higher Education Institute |
| IoT | Institute of Technology |
| ETB | Educational Training Board |
| VLE | Virtual Learning Environment |

# Chapter 1: Introduction

## 1.1 Introduction to the Study

Higher education has played a key role in the Irish economy since the 1960s (Hunt, 2011). Hazelhorn, Gibson and Harkin (2015) highlighted that at the beginning of the 19th century in Ireland, just over 3,000 people participated in higher education. However, by 1980, the rate of participation in higher education was approximately 20%. In a study of Mature Student Participation in Higher Education: What are the Challenges? Recommendations for the Future (2021), approximately 40% of the Irish population between the ages of 15-64 years have achieved a higher education qualification. Figure 1.1 below, illustrates that this is a 5% increase from 2011.

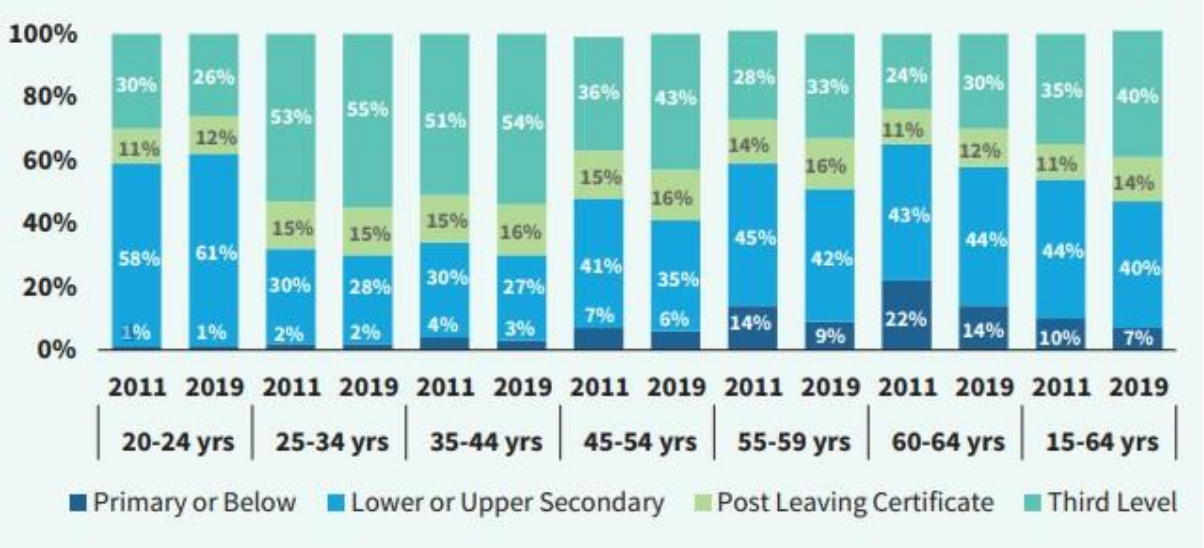


**Figure 1.1. Persons Aged 20-64 (%) by Age Group and by Highest Educational Level, 2011 Q2 and 2019 Q2** (Source: Indecon International Research Economics, 2021)

In an OECD report titled Education at a Glance (2019), Ireland has one of the highest rates of higher-level educational attainment for that age group among the Organisation for Economic Co-operation Development countries (OECD, 2019). Table 1.1 on the next page illustrates the projected number of full-time students who will enter higher-level institutions in Ireland over the next 22 years. The OECD project, the number of entrants into higher education will increase year on year for the next 10 years. This demonstrates Irish students are aware of

the value of having a higher education qualification when trying to obtain employment in Ireland.

| Year | Projections of full-time demand for places in Third Level Institutions, 2018- 2040 |
|---|---|
| 2017 | 183,050 |
| 2018 | 186,890 |
| 2019 | 191,324 |
| 2020 | 196,609 |
| 2023 | 204,339 |
| 2026 | 213,624 |
| 2029 | 222,264 |
| 2030 | 222,514 |
| 2031 | 222,109 |
| 2032 | 221,379 |
| 2035 | 215,091 |
| 2038 | 207,269 |
| 2040 | 202,925 |

**Table 1.1 Projected Number of full-time students in HEI in Ireland** (Source: Department of Education and Skills, 2018)

In a recent 2021 Higher Education Authority (HEA) report, the total enrolments in undergraduate education in Ireland in the 2019/2020 academic year were 235,697, which is ahead of the projected number of full-time students that was projected by the OECD (2019).

## 1.2 Structure of Higher Education in Ireland

Full-time students have to apply to the Central Applications Office (CAO) for a place on a programme in a University, Technical University (TU) or an Institute of Technology (IoT). At present, there are seven universities, three TUs and seven IoTs. In 2022, there are plans to amalgamate six more IoTs into two TUs. However, as the focus of this research is on mature students attending part-time undergraduate programmes, the entry process is different. Mature students can apply directly to the institute for a place on a programme. Sometimes, there is a screening process where the applicant will need to have a specific period of experience in a particular area or industry and/or a specific level of educational attainment. The applicant may also have to attend for an interview to ensure that they meet the criteria for the programme.

While the figures highlighted in Table 1 focus on full-time undergraduate students, the focus of this research are part-time mature students. In Ireland, since the recession of 2008, HEIs have invested in resources to attract mature students to apply for places on their programmes, as the government has placed an emphasis on upskilling and encouraging mature applicants to acquire new skills and knowledge. From an Irish context, mature students are students over the age of 23 years, and their current level of education to date may be at post-primary level. Sometimes, mature students would attend an Educational Training Board (ETB) centre to gain a further education qualification before going to a higher education institute. (Indecon International Research Economics, 2021).

While there is no current data available in relation to those that do not have access to part-time programmes in higher education in Ireland, Indecon International Research Economics (2021) in their report titled "Mature Student Participation in Higher Education: What are the Challenges? Recommendations for the Future, they have identified several barriers that may impact some mature students in relation to accessing higher education programmes. Figure 1.2 on the next page, highlight the main barriers to accessing higher education programmes for mature students in Ireland. Some of the major barriers include financial costs, family and job commitments, distance to travel to study, timing of the study and the lack of flexibility of study options.

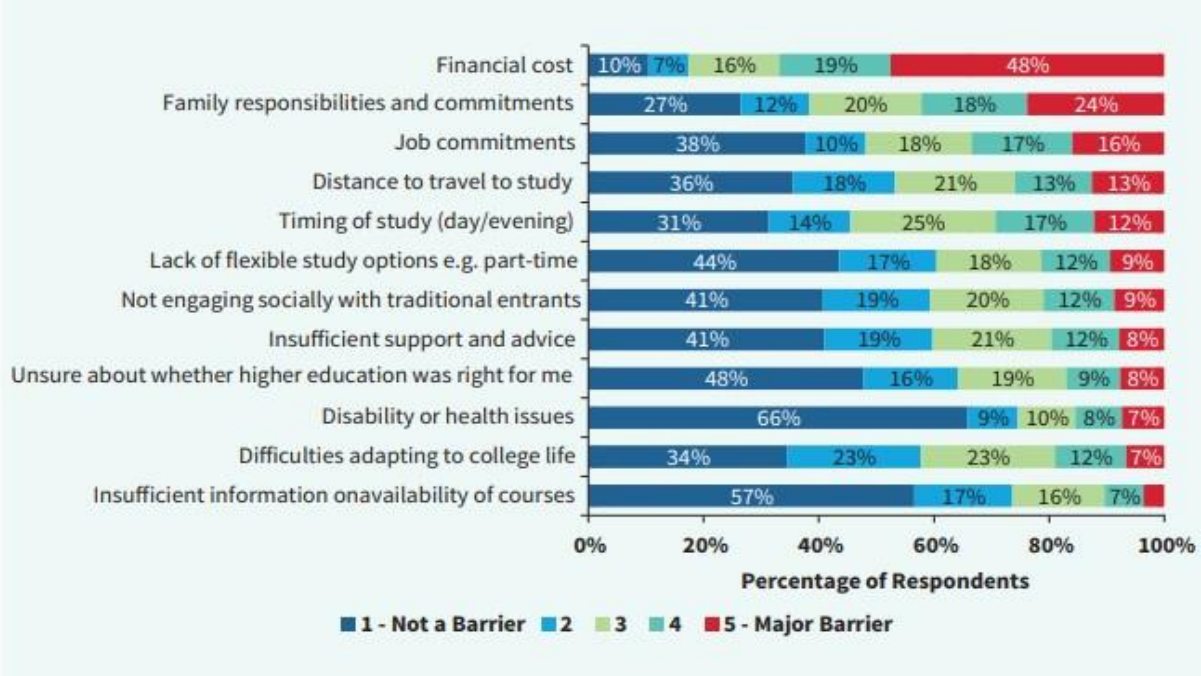


**Figure 1.2 Survey of the Barriers to Participation in Higher Education** (Source: Indecon International Research Economics, 2021)

These factors are important considerations, especially in the context of this study, as the programme that will be used in this research is a blended/flexible learning programme and is often funded by the employer.

## 1.3 Background to the Study

The reason for the increase in participation in higher education in Ireland was due to three crucial factors: Ireland's membership in the EEC, growth in the Irish economy, and societal changes. Indeed, as far back as 1998, Altback (1998) argued that higher education is a way of helping resolve social and economic inequalities and can be viewed as an essential element for our society. When the Department of Education first promoted the widening of participation in higher education in Ireland, it was mainly to encourage Irish secondary school students to attend higher education after completing their Leaving Certificate, which is the final exam that full-time students complete to enter higher-level education in Ireland. However, today, that focus has changed. Hazelhorn et al. (2015) maintain that today, the focus of Irish Higher Education Institutes (HEIs) is to ensure that students who attend higher educational institutes obtain the highest quality educational qualifications as part of their higher education experience.

Pates and Summer (2016) are of the view that this widening of participation in higher education has led an increased number of students attending HEIs. The widening of participation in higher education has led to large numbers of students attending full-time programmes in HEIs in Ireland, as evidenced in Table 1.1, which has led to pressurised infrastructures within higher educational institutes such as a lack of available classrooms and laboratories. As a result institutes have turned to using information technology as a mode of delivering educational material to students. These two factors bring about various challenges for HEIs in Ireland. HEIs will have to consider how can they cater to an increasing number of students while offering them high-quality learning experiences. Indeed, Moore and Gilmartin (2010) alluded to the fact that as student numbers in higher education increase and the physical space in an institute becomes constrained, students would have to attend lectures in larger theatres that may not provide students with the interactive experiences they require from their higher education programmes.

Although there is a projected increase in the number of full-time students attending higher education in Ireland, in this study, I have focused on part-time students who have enrolled in part-time programmes to enhance their knowledge and to further their careers. The rationale for this is that part-time students and their educational experiences in higher education are an area that is very under-researched. Hunt (2017) evidenced this when he referred to the fact that part-time learning in higher education is under-researched in Ireland. The research is even more scarce in relation to part-time students enrolling in part-time blended learning programmes in HEIs in Ireland. Indeed, Ireland is not alone in this. Other countries, such as the United States of America and the United Kingdom, also have limited research in relation to part-time students in higher education. When those in senior management in HEIs develop educational policies, these are often devised with full-time students in mind, and therefore, part-time students are rarely the focus. Hence, as a practitioner, I felt it was important to focus on part-time students undertaking a part-time blended learning degree programme in one specific institute in Ireland.

## 1.4 Rationale for the study

Benson, Brack and Samarwickrema (2012) found that HEIs in Australia that offer blended learning programmes have fewer blended learning programmes than traditional face to-face programmes. To date there has been a lack of an agreed definition of blended learning.

After reviewing the multiple definitions of blended learning in the available literature, the definition by Waha and Davis (2014) the "integration of useful aspects of online and face-to-face learning environments, where students and teacher interact both with and without the use of technology", was deemed to be the most suitable for this study. The programme used for this study contains a combination of face to face and online lectures and a mix of learning spaces that students tend to interact with and students will be learning with and without the use of technology. This was discussed in more detail in 2.2 Reviewing the Concept of Blended Learning in literature review section.

However, blended learning, as a model of delivery in higher education on a global scale, has increased in popularity in recent years. In fact, Porter, Graham, Spring and Welch (2014) anticipated that in the future, blended learning will become a more prevalent method of delivery for programme content in higher education in contrast to traditional face-to-face classroom delivery. This is because blended learning has become an increasingly accepted method of delivering content because, firstly, it provides students with flexibility, especially those working on a full-time basis. Second, HEIs may see blended learning as a more cost-effective way of delivering educational content than the traditional classroom delivery method. Even though Porter et al.'s (2014) research was conducted in the United States, blended learning is becoming an important model of delivery in Irish HEIs as HEIs in Ireland have slowly expanded their repertoires of blending learning programmes in recent years.

The Hunt Report (2017), which is a significant policy document on higher education in Ireland, identified the need for Irish HEIs to offer a choice of delivery modes for their programmes to potential students. While there is an emphasis on HEIs to create new blended learning programmes, there are often challenges that need to be overcome. Indeed, Alebaikan and Troudi (2010) who undertook research to investigate the challenges and obstacles facing HEIs in Saudi Arabia, stated that institutes need to consider whether students will have access to information technology that is necessary to take part in a blended learning programme, especially if software is necessary to participate in class or connect with peers over the duration of the programme. Furthermore, Tshabalala, Ndeya-Ndereya and van der Merwe (2014) conducted research in South Africa to examine the use of blended learning as a solution to enable HEIs to provide students with educational experiences that suit students that are deemed to be digital natives. Tshabalala et al. (2014) argued that although HEIs may be in favour of adopting or expanding their ranges of programmes, it is necessary for an institute to have a

clear blended learning policy, funding to implement blended learning programmes and the staff to deliver blended learning programmes.

While blended learning has become an important element of higher education for HEIs, the topic of learning spaces in higher education has become an area that researchers have begun to turn their attention to. Neary and Saunders (2011) in their research into the design and the decision-making process of learning spaces in twelve HEIs in the United Kingdom, view learning spaces as any space a student can use for learning. Learning spaces that students commonly use include classrooms, libraries, group project rooms and canteens.

However, as students are becoming more reliant on technology, it is not just the physical learning spaces that institutes must focus on. There is now a need to concentrate on virtual learning spaces that students may use for learning during their time in a programme. However, to date, a limited number of researchers have focused on physical and virtual learning spaces in blended learning programmes in higher education, especially from an Irish perspective.

According to Montgomery (2008), an educator needs to consider three elements in relation to the use of space. These are (1) student groups, (2) how students use learning spaces and (3) learning spaces. Student groups can impact how students learn. McKeachie (1980), Cooper and Robinson (2000), Mulryan-Kyne (2010) and Moore and Gilmartin (2010) all alluded to the fact that large sized classes may impact the quality of learning in higher education from a student perspective as large traditional classrooms can prevent students from interacting with lecture content and their peers. Indeed, Hornsby and Osman (2014) stated that large traditional classrooms in higher education can lead students not being able to develop their higher-order cognitive abilities. While class size is an important issue to consider in relation to student learning experiences, focus also needs to be placed on how students use their learning spaces. As higher education is becoming increasingly competitive, institutes are doing all they can to attract students, however institutes also need to ensure that they can retain students to the completion of their degree. Indeed, O'Farrell (2019) in a report focusing understanding and enabling student success in higher education, has stated that students are choosing HEIs not just based on their programme offerings; they are now seeking high-quality learning experiences from their chosen institutes.

King (2016) who conducted research in HEIs in both Australia and Spain, has drawn attention to the importance of learning spaces in higher education. This is equally important

for traditional face-to-face and for blended learning delivery. Indeed, the Bologna Process placed a significant emphasis on understanding the impact of learning spaces in HEIs. The Bologna Process (2009) was a European movement established to ensure a standard of quality in higher education programmes and the mobility and employability of higher education students and has promoted the widening of access to higher education, especially for under represented groups in society. The Bologna Process (2009) also led to an increased focus on the concept of "collaborative learning" and how learning spaces could be designed to promote collaborative learning during students' time in a programme (King, 2016).

Keppell (2014) who has written articles focusing on the area of learning spaces and how students are likely to navigate learning spaces in the future, is of the view that students have multiple learning spaces that can be virtual, physical or both. The students who enrol in higher education programmes in Ireland are in a programme for three or four years. During that time, a student may use a variety of learning spaces that will enable them to understand, reflect on and utilise the knowledge conveyed to them. Therefore, for this research, I will investigate both physical and virtual learning spaces to understand how students in one specific blended learning programme perceive their learning spaces while enrolled in the programme.

While this research study was conducted prior to the occurrence of the Covid-19 pandemic, the study itself is still significant as face to face teaching has resumed in HEIs across the Republic of Ireland. To date there has been much discussion in my own institute around offering more blended learning offerings for both full-time and part-time programmes. The findings of the study may prove useful to those intending to offer a blended approach which will require practitioners and students to use a variety of a mix of online and physical learning spaces.

## 1.5 Research Problem

The origin for this study arose from my work as a practitioner in a higher education institute. I have worked in higher education in Ireland for nearly two decades, lecturing students in both undergraduate and postgraduate programmes. Over the last decade, I have seen an increase in the number of HEIs in Ireland offering blended learning programmes. These programmes are mainly a mix of lectures, tutorials and practicals that are delivered on campus or via a virtual learning environment, either synchronously or asynchronously. In this study, a residential blended learning programme where students are on campus for an intensive three-

or four-week period and have one module delivered online when they are off campus. Prior to commencing this thesis journey, I lectured in this residential blended learning programme, and I interacted with the students while they were on their residential block and also lectured a module to the students via the institute's virtual learning environment (VLE).

This provided me with an opportunity to observe these students. Throughout my years as a practitioner, I have developed an interest in how students learn, and the learning theories affiliated with how students learn. Although the classroom obviously is the primary place where students learn, students can also learn outside the classroom, for example, from their peers, work placement practice or on their own in the library. Although I am aware that students use multiple learning spaces, I am keen on investigating whether students prefer particular learning spaces and their rationales for their preferences. This, in turn, may impact their overall learning experiences while enrolled in their programmes. Poon (2013) who conducted a case study in Nottingham Trent University in the United Kingdom, focused on how blended learning was utilised as a method of delivery, commented that the student learning experience has become an important issue for higher educational institutes. Although there has been much research conducted on the physical design of learning environments and the lecturing materials used by practitioners, such as the research conducted by Lizzio et al. (2002) (as cited in Poon, 2013), there has been little research conducted around how students learn in different learning spaces and how they view those learning spaces, particularly from a residential blended learning perspective. The offering of residential blended learning programmes is a relatively new concept in my current institute. Although there are supports in place for the training of staff to ensure that the best possible experience is offered to the students enrolled in residential blended programmes, there is no specific blended learning policy for the institute. I was curious to investigate whether this lack of an established blended learning policy in the institute would affect students' experiences of being enrolled in a residential blended learning programme.

## 1.6 Gap in the Current Research

Within this doctoral thesis, I aim to explore how students learn and how and why blended learning students use the variety of learning spaces they were exposed to during their programmes, such as the classroom, the library, project rooms and the virtual classroom, and the overall student learning experience of being enrolled in a blended learning programme in one institute. This interests me as a practitioner because, to date, there is a limited amount of

published research available in this area from a higher education perspective. There are also gaps in the currently available research on learning spaces in blended learning programmes from an Irish context. Presently, a sizeable proportion of articles related to blended learning concentrate on the technical infrastructure that is required to enable blended learning content to be delivered. Although this is a prominent issue to consider, Poon (2013) outlined that institutes should also take learning spaces into consideration when planning and designing blended learning programmes in higher education. Learning spaces themselves can impact student experiences. Wilson and Randall (2012) conducted research in one HEI in Australia, focused on the design and effectiveness of new learning spaces, have posited that institutions should aim to provide students with an environment that is flexible and enables students to study when and where they want. Furthermore, Asare (2014) who has conducted a literature review in distance and residential learning in higher education, has stated that departmental managers in HEIs need to focus on understanding the needs of learners concerning not only the content to be delivered but also how they interact with the content and their peers in the programme.

As previously mentioned, although the majority of HEIs in Ireland are under the Department of Education and receive funding from the government, they heavily rely on student numbers in order to receive funding from the government. If a student perceives they will not have a positive experience with an institute, then this may impact their choice about whether to enrol in a programme in an institute, which will impact the finances of the institute. As far back as 2008, researchers such as Temple (2008) highlighted that there is a lack of research in learning spaces in higher education. Although there is a limited amount of research on this area by researchers such as deBorba, Alves and Campagnolo (2020), McNeil and Borg (2018), Bechers, van der Voordt and Dewulf (2016) Andrews and Jones (2015), Cleveland and Fisher (2013) and Wilson and Randall (2012), there is a scarcity of research on the impact of learning spaces from an Irish perspective. In addition, although the Hunt Report (2017) identified the need for offering additional blended learning programmes, to date, there is a scarcity of research available on the area of blended learning policy development, which is necessary when introducing blended learning programmes in HEIs in Ireland.

## 1.7 Research Purpose

Over the years as a practitioner, I have encountered an increased number of mature students participating in higher education in Ireland. However, most of these mature enrolled in short-term programmes of less than one academic year, and these students mainly attend evening programmes. In recent times, there are more part-time undergraduate higher education programmes that are longer than one academic year on offer to mature students in Ireland. There are also several residential blended learning programmes on offer to mature students that require students to attend face-to-face lectures on campus for a portion of time during the academic year and the obligation for students to attend weekly online lecture sessions.

My lecturing experience has given me a great insight into how students learn when they enrolled on a residential learning programme and this experience has led me to identify the gap in research as identified in the previous section. Therefore, I expect that the findings of this research will promote the importance of learning spaces in the HEI where I work and across other HEIs in Ireland. Understanding how students learn and what learning spaces students use can be especially important to the student's experience in higher education. Neary and Saunders (2011) view learning spaces as any space that a student can use for learning. Through my research, I aim to highlight how students use a variety of learning spaces, physical, virtual or both, during their time in a programme and how important these learning spaces are to the creation of a successful student learning experience. Although lecturers will be cognisant of some of the obvious learning spaces, such as a library or discussion boards on a virtual learning environment site, I aim to identify the less obvious learning spaces that students use and their importance to students. Finally, because this is practitioner-based research, I aim to identify areas for future research that practitioners could address in their own research studies that could further the dialogue in this area and might benefit their practice in higher education.

## 1.8 Practical Motivation

Having completed a masters degree in marketing via distance learning and participating in this online doctoral programme, I became very much aware of the virtual learning spaces that we, as students, used in the doctoral programme. However, in a blended learning programme, the number of learning spaces used may be greater than those used for traditionally delivered higher education programmes. The growth in the use of technology in higher education and the increased use of the internet has led to the creation of new learning spaces,

such as VLEs, such as Blackboard and Moodle. These VLEs are structured in their design, unlike social networking sites such as Facebook and WhatsApp, which are viewed by McCarthy (2016) as being more informal and less structured than the VLEs. With structured learning environments, students should be able to, with a little training, easily retrieve lecture notes, take part in discussion forums, upload assessments, and participate in synchronous online lectures. Social networking sites, while informal, can provide a valuable learning space to students where students can ask questions of their peers, have face-to-face interaction which is valuable when students are off campus to maintain their engagement with their peers and their programme.

Students today have developed expectations about what their higher education experiences will be like. As previously mentioned, researchers in HEI settings, such as Hazelhorn et al. (2015) and O'Farrell (2019) highlighted the importance of providing students with the best possible higher education experience. Therefore, I hold that if institutions are going to invest in offering additional blended learning programmes in the future, then it is important for the students to receive the best possible experience. To achieve this, attention needs to be placed on how the content will be delivered and the learning spaces that students use and why these learning spaces are important to the students. This view is supported by Strange and Banning (2015), who in their book titled "Designing for learning: Creating campus environments for student success" have posited that higher-level institutions need to have environments that bring students into the institution, meet their expectations, and enable the retention of learners for as long as possible. Therefore, the proposed benefits of undertaking this thesis will be the identification of the learning spaces that students use within the institute and their importance to students. I anticipate that the result of this study could enhance the delivery of blended learning programmes in the institute where the research was undertaken.

## 1.9 Research setting

For this research study, one specific undergraduate residential blended learning programme was chosen. I chose this specific programme as I had lectured for several years on this programme and I have gained an insight into the type of students that enrolled on this programme and the format and mode of delivery of this programme. However, it should be noted that for the duration of this study, I have not lectured on this specific programme. All the students that enrolled on this specific blended learning programme work on a full-time basis

in the service sector and these students reside throughout the island of Ireland. The profile of the students that enrol in this programme varies in age from their early twenties to their mid-fifties and these students are usually in the early to mid-stage of their career in their chosen service sector. Most of the students that apply for this programme have no previous experience of higher education and few students have any experience with online learning, even if it is for a short training programme. There is a Level 7 and Level 8 offering within this programme.

From an Irish context, a Level 7 degree programme is deemed to be an ordinary degree obtained after three years of full-time study (this will be a longer period if the student is attending on a part-time basis). A Level 8 degree programme is an honours degree qualification. This can be achieved over a three- or four-year period on a full-time basis (this will be a longer period if the student is attending on a part-time basis). If a student has achieved a Level 8 honours degree, they are eligible to apply for a Level 9 Masters degree programme. The structure of this undergraduate programme is two semesters per year over three or four years depending on the level of the programme. Students typically undertake ten to eleven modules per academic year, with one module delivery solely online per semester and the delivery of remaining modules are on a face-to-face basis over three to four weeks on campus during the semester. Lecturers expect students to attend their programme on a full-time basis over this period and engage in face-to-face lectures and complete assignments both on and off campus, either on an individual or group basis. Essentially, the student is attending a full-time programme on a part-time basis.

## 1.10 Thesis Structure

This thesis is divided into six chapters. Chapter 1 of this thesis lays out some contextualisation for the research study, including the background of the study itself, the rationale for undertaking the research, the research problem, and my motivation for undertaking the research. I then follow with Chapter 2, providing an in-depth review of the literature about blended learning, learning theories, student engagement, and learning spaces in higher education. Chapter 3 offers an insight into my methodological approach to the research and provides a rationale for the methodological approach used in this study. In Chapter 4, I identified the findings of the study using thematic analysis. Chapter 5 provides an examination of the findings of the study based on the four themes that emerged from the data. In Chapter 6, I conclude the research study. In this section, a summary is presented of how this

study contributes to the existing body of knowledge, and I also highlight implications for future practice. Furthermore, I also examine areas for future research that may benefit practitioners who are aiming to undertake future research in the area of learning and learning spaces. I conclude the chapter with a reflection on my doctoral journey.

# Chapter 2 Literature Review

## 2.1 Introduction

The previous chapter contained a description of the context of this research study and the rationale for conducting the study. In this chapter, a critical examination of a range of literature related to the research topic will be presented. I will begin by discussing the concept of blended learning in the context of my study. A range of blended learning models will be discussed because they are important considerations in understanding how students in higher education blended learning programmes learn. I will also focus on a range of learning theories and models to explore how learning may occur in a learning environment. There will then be a discussion about student engagement, as student engagement has become a focal point in higher education because of its importance in enabling students to learn in a higher education setting. I will then undertake an examination of the formal and informal learning environments within an HEI setting. Finally, the chapter will conclude with a discussion of blended learning policy in higher education.

Wicks,Craft, Mason, Gritter and Bolding (2015) have acknowledged that blended learning is not a new phenomenon. Blended learning was present in the 1920s when students participated in education through a mixture of face-to-face contact and postal correspondence. The Department of Education promoted the use of blended learning in institutions in the United States as being more powerful than face-to-face teaching. It was not just the communication tools that made this medium more effective; student's learning improved because students were interacting more with the module material and, therefore, taking part in reflective learning, which resulted in deep learning (Doyle, 2017). Jones and Lau (2010) wrote that the concept of blended learning in higher education started to gain traction at the turn of the twenty-first century. This may result from the widening of access to higher education around this time. Indeed, Jones and Lau (2010) outline that HEIs would need to be more flexible than they currently are to cater to increased numbers of students, and this could be achieved through the promotion of blended learning in higher education programmes. Bath and Bourke (2011) supported this view through their research around the use of a staff development programme to address blended learning in higher education. They were of the opinion that blended learning was becoming a crucial element of programme delivery in higher education. Indeed, Porter et al. (2014) and Blair, Maharaj, and Primus (2016) who have conducted research around the adoption and implementation of blended learning in the United States and Trinidad and

Tobago, have gone further by arguing that blended learning would become the new model for learning in HEIs. In recent times, McCarthy (2016), in support of blended learning, conducted research in a HEI in Australia and expressed that blended learning can encourage students to interact more than they currently do, especially in large student cohorts, as in many programmes in HEIs.

## 2.2 Reviewing the Concept of Blended Learning

As previously mentioned, blended learning is not a new concept and has existed for nearly a century. However, currently, there are several terms that are used instead of blended learning in the literature as identified by Wang, Chen and Anderson (2015), who conducted research around 87 journal articles that were empirical in nature and found that terms that were often used were hybrid instruction, tech-mediated learning, and enhanced learning. The term blended learning will be used throughout this dissertation. Interestingly, Hunt (2017), stated that when HEIs devised learning policies, it seems that policy makers applied the term flexible learning to programmes that are distance learning, online, or blended learning in nature. In HEIs in Ireland, marketing material devised by several HEIs revealed that there is a tendency to interchangeably use terms such as flexible learning, digital learning and blended learning is to promote programmes to members of the public. Graham, Woodfield and Harrison (2013) wrote that HEIs today have many perspectives on blended learning. This is evidenced in 2.1 below, which illustrates the five different perspectives that institutions may have about blended learning.

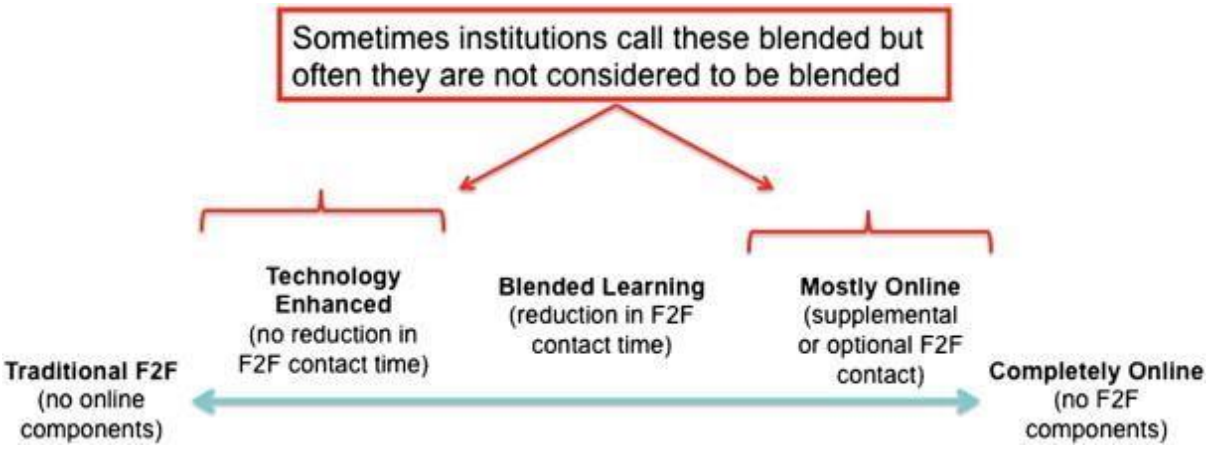


**Figure 2.1 Perspectives on blended learning (adopted from Graham et al., 2013)**

One form of blended learning is traditional face-to-face learning with no online components. However, a blend of instruction methods may be used to deliver content, such as the use of case studies or roleplay in a lecture session. A second perspective of blended learning may be the technology-enhanced perspective, where there is no reduction in the number of hours of face-to-face teaching, but the students have access to additional content online, which may enhance their learning. An example of this might be a case in which a practitioner uses a VLE, such as Blackboard or Moodle, to make additional content available to students, such as recommended readings or YouTube clips.

A third form of blended learning is where an institution offers a reduction in face-to-face classes, which are replaced by elements of online content, either synchronous or asynchronous. An institution might decide that, for example, synchronous classes in a VLE would replace face-to-face lecture sessions along with activities, such as discussion forums. The programme used in this study belongs to this category. Fourthly, an institution may adopt a mainly online strategy whereby most class delivery occurred online, and there may be an option for traditional face-to-face class time if students require it. For example, practical tutorials may occur on a face-to-face basis. Finally, an institution might offer programmes that are completely online where the students receive no traditional face-to-face classes, and all learning and teaching occurs online. Most HEIs in Ireland still deliver most of their content in the traditional manner of face-to-face classes. However, in recent times, there has been an increase in the number of blended learning programmes with a reduction in face-to-face contact time being offered to learners in higher education. There has also been an increase in the number of programmes being offered completely online in both public and private institutions throughout Ireland.

Kaur (2013) is also of the view that blended learning can be defined from many perspectives. However, Kaur's perspective on how blended learning can be defined differs from that in Graham et al.'s (2013) Figure 2.1 diagram of blended learning. First, Kaur (2013) is of the view that there can be a holistic perspective to blended learning, where a programme is delivered utilising several different media. For example, practitioners may integrate instructional media into a traditional or online learning environment. Kaur (2013) held a second perspective of blended learning where, from an educational perspective, an element of an educational programme is replaced through online activities, for example, discussion boards. Therefore, the main aim of offering a blended learning programme from this perspective is to integrate synchronous and asynchronous contact in a planned manner to give the student the

best possible learning experience. Third, from a pragmatic perspective, there is a mix of pedagogical methods used to deliver programme content. An educational practitioner can achieve this through a variety of methods that are behavioural or cognitive.

There are differences in how people perceive the concept of blended learning, as well as various perspectives on the definition of blended learning. Even though there are many definitions identified in various pieces of literature, authors such as Mirriahi and Alonzo (2015) and Medina (2018) who have reviewed definitions of blended learning, have stated that there is no single agreed-upon definition of blended learning. However, among the plethora of definitions that are present in the literature, Hapuarachchi (2016) found that common objectives are evident in the various definitions identified in the literature: (1) a chance to broaden access to education to people who may not have access to traditional face-to-face education, (2) a prospect to develop the quality of the offering to students and (3) blended learning is an opportunity to reduce the costs of delivering programmes to students. In addition, Alammary, Sheard and Carbone (2014) highlighted that O'Driscoll (2002) identified four separate definitions of blended learning:

"To combine or mix modes of web-based technology (e.g. live virtual classroom, self-paced instruction, collaborative learning, streaming video, audio, and text) to accomplish an educational goal."

"To combine various pedagogical approaches (e.g., constructivism, behaviourism, cognitivism) to produce an optimal learning outcome with or without instructional technology."

"To combine any form of instructional technology with face-to-face instructor-led training."

"To mix or combine instructional technology with actual job tasks to create a harmonious effect of learning and working."

O'Driscoll (2002) tried to include all possible pedagogical and instructional methods in her definition of blended learning. Oliver and Trigwell (2005) identified three separate definitions of blended learning:

"The combination of media and tools employed in an e-learning environment."

"The combination of a number of pedagogic approaches, irrespective of the learning technology used."

"The integrated combination of traditional learning with web-based online approaches."

However, Sharma (2010) posed issues with the definitions that were devised by O'Driscoll (2002) and Oliver and Trigwell (2005). The first definition identified by O'Driscoll (2002) and Oliver and Trigwell (2005) could describe a course that is purely delivered online. The second definition that O'Driscoll (2002) and Oliver and Trigwell (2005) identified could describe a traditional face-to-face course that combines several pedagogical approaches. Finally, the third definition that O'Driscoll (2002) and Oliver and Trigwell (2005) identified is regarded as the most common and classic. However, it is also considered as being broad and, perhaps, a deficient definition of blended learning for higher education today.

In more recent times, Waha and Davis (2014) defined blended learning as the "integration of useful aspects of online and face-to-face learning environments, where students and teacher interact both with and without the use of technology". This definition is similar to a definition put forward by Mantri (2016), who stated that a simple definition of blended learning views the practitioner as integrating online learning with face-to-face learning meaningfully. Although it may be difficult to define blended learning overall, the focus needs to be placed on how HEIs view and value the use of blended learning in higher education today, as well as in the future. With this in mind, I reviewed the definitions that were present in the literature and took the many perspectives on blended learning into consideration, as identified earlier by Graham et al. (2013) and Kaur (2013). I also took the objectives of blended learning identified by Hapuarachchi (2016) into consideration, and therefore, I identified the definition proposed by Waha and Davis (2014) as the most appropriate for this research study.

Although Pisoni (2019) undertook research around the strategies used to introduce blended learning into eighteen universities across Europe, he referred to the fact that technology is used to enable learning in higher education, and now has a significant part to play in blended learning programmes. I hold that in a blended learning programme, the online and face-to-face environments should be integrated seamlessly, and both the practitioner and the students should not overly depend on technology. The technology that is used to deliver material should be there to support learning activities in the blended learning programme. Therefore, the concept of blended learning should imply that the practitioner takes the best elements of the online or

the VLE and combines them with face-to-face delivery to provide student with the best possible flexible learning programme that promotes student-directed learning, engagement, and the ability to utilise spaces that encourage student learning. The programme chosen for this research involves the use of a mixture of online, self-directed learning and face-to-face environments throughout the duration of the programme, which Lisetskyi (2015) deemed to be necessary elements for a blended learning programme.

As stated in Chapter 1, the blended learning programme used for this study contains a face-to-face residential block, which is an important part of the programme because it gives students the opportunity for direct interaction with their lecturer and their peers. However, technology also plays a part in the residential element of the block lecture sessions. Students access PowerPoint slides through their VLE and, for some modules, students also participate in web-enabled games, such as Kahoot! and use a variety of Microsoft and other software applications. Students are also required to complete some online activities outside of lectures during their residential block. Although online elements are important for this programme, issues often arise when students are off campus. The broadband infrastructure in Ireland can pose issues for students and some students may not be comfortable using technology for learning.

When focusing on the use of technology, one must also consider social media platforms because they are important technological advances in higher education. Social media platforms have become a ubiquitous aspect of students' lives in higher education. Most students possess a smartphone, which means they can access social media apps, such as Facebook and Instagram. Deng and Travares' (2015) research focused on how students use the Internet and social media sites for both social and academic purposes, say that social networking sites like Facebook are an essential space for informal learning, even though their main purpose is social interaction. Zachos, Paraskevopoulou-Kollia and Anagnostopoulos (2018) reviewed 77 articles and found that students use social media sites for two main reasons. First, social media platforms can be used as support tools that enable students to cope with higher education life. Second, social media sites can be used for communication and collaboration purposes. As Nsofor, Umeh, Ahmed and Sani (2014) outlined, blended learning can provide a social aspect of learning whereby students can meet both in the physical classroom and online to discuss material and exchange ideas and views on the material. Deng and Travares (2015) supported this view by arguing that learning has a cognitive as well as socio-emotional element, which is often ignored by those teaching in higher education because lecturers have a tendency to focus

on the cognitive element of learning. Through the use of technology, active participation is now possible for students who are unable to attend traditional face-to-face classes on regular basis. These students can now access online learning sites, such as Zoom and Google docs to work collaboratively with their fellow students. Indeed, when blended learning is provided in an integrated manner, students can be encouraged to become active participants in their own learning, both in the traditional classroom and online.

Along with the issue of academic performance identified above, technology can bring its own problems to a higher education programme. According to Wang et al. (2015), the complexity of using technology-mediated learning and classroom-based learning has led to increased complexity in teaching and learning. Technology has led instructors to change curricula and activities in order to deal with new ways of developing relationships with learners. However, it should be noted that Medina (2018), cautioned that some higher educational institutions may adopt approaches whereby technology is "bolted" onto an existing face-to-face programme.

### 2.2.1 Benefits of Blended Learning

Owston, York and Murtha (2013) undertook a study in one Canadian university to examine the relationship between student achievement and their experience of blended learning, where they formed the view that students who take part in blended learning programmes experience more satisfaction with their programme than students who participate in online or face-to-face programmes. There are a number of benefits associated with offering a blended learning programme. First, there is the flexibility of access for students that in the past that may not have access to traditional face-to-face classes. Enrolling on a blended learning programme in higher education may mean that students do not have to be present on campus on a full-time basis to take part in their programme. Learners can sometimes choose the pace at which that they want to learn or if the material is not complex, then the learner can increase the pace at which they learn. In the instance of the learners in this study, most reside and work outside a fifty-kilometre radius of the institution, which may mean that they could not attend the institution throughout the twelve weeks of the semester for face-to-face full-time classes. In addition, the students who attend the blended learning programme work a range of shifts throughout the week, so when they are not taking part in their residential block, they require flexibility. Therefore, synchronous lecture sessions are recorded, and students are provided with ample time to read course material.

Second, Akpan (2015) found that programmes that contain blended learning result in students gaining a greater understanding of the content and acquire improved grades. Doyle, Moore, Murphy and Sewell (2017) suggested that if students study the material provided by the educator before going to lectures, then they may be better able to analyse, evaluate and create connections with the content during their face-to-face sessions with the lecturer and their peers. With the chosen blended learning programme for this study, from my experience, the students often demonstrated an elevated level of analysis. Students link the work they currently undertake in their workplace to their study programme. Therefore, students often display an elevated level of awareness between their work practices and the theory that is discussed in the module. Indeed, Akpan (2015) is of the view that blended learning promotes independent or self-directed learning, which can encourage students to become independent learners. In higher education institutes in Ireland, self-directed learning is prevalent across undergraduate degree programmes. Indeed, self-directed learning is an essential element in the programme chosen for this study and is promoted across all years of the programme. They provide students with a range of materials to review prior to their residential block and their synchronous online sessions and, sometimes; they provide students with activities to engage in before the synchronous or residential block sessions. Deng and Travares (2015) wrote that blended learning programmes provide students with the possibility of interacting with each other and fostering relationships. The students who enrol in the blended learning programme also vary in age and level of industry experience. Blended learning programmes, can therefore, provide a platform on which students can share their experiences, which can be greatly beneficial especially if students are trying to make sense of how the content that students are exposed to in the lecture and how this can be applied in the workplace. The result of this is that some students take on the role of mentor, especially to students who are new to the industry, and this mentorship may last longer than the programme.

Third, blended learning offers the possibility of changing how higher education institutions are viewed in society by transforming how programme content is delivered. HEIs can use a variety of technologies to design or redesign content to provide students with meaningful learning experiences. This is linked to the fourth benefit in that blended learning can be viewed as a cost-effective method of delivering higher education programmes compared to the cost of having to deliver lectures in a face-to-face lecture style classroom.

Therefore, staff and room allocation costs can be significantly reduced. Poon (2013) is of the view that institutions can save money on printing costs, because all materials will be available on the VLE. This is a critical issue in Ireland, as there have been deficits in some HEIs in Ireland.

### 2.2.2 Challenges of Blended Learning

Although the previous section identified the positives of blended learning, there should be some caution exercised when adopting this model in a higher education setting. As far back as the turn of this century, Seife (2000, as cited in Moskal et al., 2013) questioned whether blended learning was beneficial to higher education. This viewpoint was further discussed by Reese (2015), who raised concerns about the viability of using a blended learning model for not only students but also practitioners.

There are several challenges involved in introducing blended learning programmes into an HEI. First, there is the cultural paradigm to consider. There may be cultural barriers to introducing blended learning programmes in an institution in relation to the format of delivery, technology, time management, and job security. These challenges can be seen from either from a student or academic perspective, or both. Students may have a fear of the unknown in a blended learning programme or fear of using technology. Doyle et al. (2017) commented that some students may find interacting online alien because they might be used to the traditional face-to-face delivery. With the blended learning programme chosen for this study, sometimes in which some students had attended a higher-level institution many years previously and had only experienced face-to-face delivery with little or no technology involved in the delivery. Some students who attend the programme have limited technological skills because technology plays an insignificant role in their job. This can lead to students being uncomfortable with using technology. Deng and Travares (2015) referred to a “participation gap” for students using technology. This was evident in the programme chosen for this study. The younger students usually experienced minimal problems accessing their student email on their smartphone and displayed a greater understanding of modules that required them to work using a software package than the older students. Although students were provided with instructions on how to access their student email and the VLE, some students still experienced difficulties finding and accessing material, especially in a VLE setting. This, according to Akpan (2015), can understandably cause the student to become frustrated and lose interest in the programme. Not only do students encounter technological difficulties, Donnelly (2006) stated that lecturers may

be unaware of how to use the many tools that are available on VLEs and, as a result, may only use these platforms to upload their PowerPoint slides. In more recent times, Nsofor et al. (2014) commented on the issue that academic staff in higher education may have a fear of using technology that is necessary for the delivery of blended learning programmes.

Students may also lack discipline, organisation, and timekeeping skills, which are necessary to undertake blended learning activities. Students in blended learning programmes need to have discipline to attend synchronous classes off campus and complete asynchronous activities, which are two key features in the blended learning programme in this study. While management in HEIs may spend much time and effort in designing blended learning programmes, institutions have no control over the strength or speed of broadband access. Nsofor et al. (2014) highlighted that management needs to consider bandwidth access if students are to rely on access to broadband to participate in their programme. The programme chosen for this study is designed around students being able to access the institution's VLE platform for both synchronous and asynchronous activities. To date, there are significant issues in Ireland related to accessing broadband. Rural parts of Ireland experience slow speed broadband, and access may be disrupted from time-to-time, which in turn, may hinder potential students in these areas from enrolling in blended learning programmes. Another cultural barrier to consider when students are asked to participate in a virtual learning space or environment such as Moodle or Blackboard is that these students will operate in a vastly different environment in the face-to-face classroom. Neuwirth, Jović, and Mukherji (2021) identified that students can face several challenges such as distractions from other household occupants, especially during synchronous sessions. There may also be the lack of the availability of a quiet space, especially when students need to read and reflect on lecture material to participate in learning activities. Additionally, students may encounter difficulties with turning on their web camera, as they may feel that their personal space is exposed to their peers and their lecturers.

Second, Akpan (2015) noted that time commitment is an issue for both academics and students. The time involved for academics to plan and develop a blended learning programme is typically two to three times more than that for traditional face-to-face sessions. Academics need a significant amount of time to create digital content. In addition, some content may need to be updated yearly, and again, this often requires the practitioner to collaborate with an e-learning technologist, as the practitioner may not have the required knowledge or access to software to allow for updates to material. Doyle et al. (2017) also highlighted that, for blended

learning to be successful, a considerable allocation of time is required for online and offline interactions. Students also need to set aside considerable time to download content, digest the content and undertake activities that are requirements of their programme. In addition, time management may prove to be a problem for students who use social media platforms for communication and collaborations purposes. Manca and Ranieri (2016) support this view as evidenced in their Italian study focused on the advantages and concerns with using social media in higher education, raised the concern that social media platforms may be viewed as distractions for students.

Third, Nsofor et al. (2014) stated that institutions need to have a blended learning policy for blended learning to be successful. As academic staff on the programme used for this study are familiar with the creation and organisation of material for face-to-face lecture sessions, staff may need guidance or training to encourage students to interact with peers and the instructor during the programme and with the module material in the virtual learning environment which is their formal virtual learning space during their programme. Indeed, Ali (2020) is of the view that the virtual learning environment can provide a platform for students to collaborate and interact with their peers and, in addition, students can become self-directed learners. Therefore, the importance of a properly constructed and easy to navigate virtual environment has been highlighted by Araújo, Henriques and Martini (2018) who argued that the interface of the virtual learning environment should be organised in such a way that attracts the attention of the person who is using the learning space.

Another issue raised by Doyle et al. (2017) is the potential for isolation. Students who participate in blended learning programmes may suffer from isolation from their peers and, sometimes, may feel isolated from their lecturer, because they do not meet in a face-to-face capacity daily. Although every effort is made through an induction session at the beginning of the programme to encourage students to create friendships, assist one another in getting to grips with the programme and collaborate on projects, some students will inevitably feel isolated on the programme. In this study programme, students are based around Ireland and work long hours when they are not in their residential block. This might create barriers in relation to the creation of friendships while participating in the programme.

Last, both Nsofor et al. (2014) and Tshabalala et al. (2014) drew attention to the costs of offering a blended learning programme. Management in the institution will have to procure and maintain hardware and software for the programme, which can come with significant costs,

especially for VLEs. This, according to Tshabalala et al. (2014), will only be possible when funding is available to support the blended learning programme.

## 2.3 Context of Blended Learning

Alammary,Sheard and Carbone (2014) and Hilliard (2015) highlighted that blended learning is a growing trend in higher education. The model of blended learning has provided increased opportunities for students to acquire access to higher education, especially those who are working on a full-time basis. Therefore, to gain an insight into the context of blended learning, I will outline the Irish context of blended learning in higher education.

### 2.3.1 Irish Context of Blended Learning

The Higher Education Authority (HEA) policy paper titled the National Strategy on Higher Education 2013–2030, aimed to focus on ensuring greater flexibility for students in accessing programmes in higher education. This policy paper noted that flexible learning should be at the centre of higher education so that the system and the structure suits those who are not available to attend full-time education. As mentioned earlier, Hunt (2017) reflected that there is limited research surrounding part-time learners in Ireland. However, when part-time programmes are mentioned in policies in relation to higher education, there is often confusion about the terminology used. For example, the HEA, which is the body responsible for planning and developing higher educational policy and research in Ireland, published a policy paper in 2009 entitled “Open and Flexible Learning”. This policy paper focused on funding and support for programmes that are deemed to be part time, or as it was referred to, “open and flexible learning” in higher education. Furthermore, concerns about students, especially concerning access to technology and training on how to use technology, were discussed and issues were raised in relation to specific institutional policies concerning flexible learning and technological infrastructure in Irish higher education settings.

The report of the Strategy Group (2011) entitled “National Strategy for Higher Education to 2030”, highlighted that there is an increasing emphasis on offering flexible learning offerings be it short-term, work-based, or part-time and that information technology will enable HEIs to deliver these programmes. The Strategy Group (2011) also noted that teaching on campus will always play a significant role in higher education. However, HEIs will have to concentrate on how to accommodate highly flexible learning options in the future.

Therefore, leadership in relation to offering flexible learning programmes in higher education will be imperative, as flexible learning may present many challenges, especially in the areas of administration and funding support. Presently, some HEIs in Ireland have been offering a limited number of blended learning programmes for years, while other institutions have just started offering blended learning programmes. Hunt (2017) stated that management in these institutions needs to ensure that there is flexibility in their structure and pedagogy to ensure the success of flexible blended learning programmes. However, an institution must also ensure that it considers two essential factors, namely student access to technological infrastructure and the students' ability to use the technology.

An OECD report titled "Education at a Glance" (2019) projected demand of over 200,000 full-time places in Irish higher education institutes by 2023. An increase in demand may place pressure on HEIs in Ireland, and some of these institutions may look at offering blended learning elements in their programmes because it might not be possible to accommodate all students on campus. The Part-Time and Flexible Higher Education in Ireland (2012) policy document highlighted that equity of access for the student should be promoted and supported, regardless of the duration of a learning programme or its mode of delivery. However, there are several issues that need to be considered before offering a blended learning programme on a part-time basis. First, Doyle et al. (2017) stated that the Digital Strategy for Schools 2015–2020 in Ireland outlined that technology can enhance learning in an institution. However, from a practitioner's perspective, I have witnessed that there is a presumption that both students and lecturers are "tech-savvy." There is, therefore, a need to ensure that both practitioners and students are indeed "tech-savvy." Alebaikan and Troudi (2009) in their review of the challenges of adopting a blended learning approach in Saudi universities have commented on that fact that institutions need to consider the students' ability to access technology and be aware of the importance of having technical supports available to the student during the lifetime of the programme. Funding can be an issue within an institution, and this will have to be considered when devising future policies on blended learning. There are going to be limits on what it can offer to students in relation to technical support and sometimes, the institution may have to consider having a fee for technical support as part of the cost of the programme.

Secondly, Hunt (2017) outlined that in 2012, the European Union created the Higher-Level Group on Modernisation of Higher Education to address prominent issues, such as teaching and learning in HEIs across Europe. This group has questioned how new models of learning for higher education can be effectively incorporated into higher educational programmes. A recommended outcome from this group suggests the EU should support the development and implementation of national frameworks that address the use of new models of learning in higher education. Using digital learning across EU countries has, to date, been fragmented because of a lack of a common policy framework that can support digital learning in HEIs nationally.

Finally, Wick et al. (2015) posited that the focus of blended learning is now on understanding how students learn in a blended learning environment and the impact of using particular teaching methods, as opposed to focusing on the structural issues faced in a blended learning environment. This is an issue that the management in the chosen institution for this study will have to consider. How and where students learn will also be an important consideration for management for blended learning programmes in this chosen institution. HEIs should consider the spaces that students utilised while in blended learning programmes because this is part of their educational experience while enrolled in the programme. As this is a critical issue, in the next section, I will focus on the concept of learning and the different theories associated with learning from an educational context.

## 2.4 Learning

Glasby (2015) alluded to the fact that learning can be viewed as an active process. However, similar to the term blended learning, the term learning can be difficult to define. This is evidenced by Merriam, Genovese, and Colby (2008), who posited that it is difficult to define learning. One popular definition of learning that appears in many published articles is a definition devised by Kolb (1984) who defined learning as “the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience” (Kolb, 1984 as cited in Dunlap et al. 2008). For this thesis, I deemed the following definition of learning by Ertmer and Newby (2013) to be the most appropriate. They defined learning is “an enduring change in behaviour or in the capacity to behave in a given fashion which results from practice or other forms of experience” (Ertmer and Newby, 2013). When students enrolled in the programme used in this

study, there was an expectation that the knowledge shared with the students through interaction with their lecturers and peers would cause a change of behaviour that will benefit both the students and the workplaces that are financially supporting students throughout the programme. There are several learning theories associated with learning in higher education as displayed in Table 2.1. For this study, the focus will be on cognitivism, constructivism and connectivism as these theories promote independent learning and critical thinking which are deemed to be important skills for students to acquire on the programme chosen for this study.

| | **Questions** | **Behaviourism** | **Cognitivism** | **Constructivism** | **Connectivism** |
|---|---|---|---|---|---|
| 1. | How does learning occur? | Black box-observable behaviour main focus | Structured computational | Social meaning created by each learner (personal) | Distributed within a network, social, technologically enhanced, recognising and interpreting patterns |
| 2. | What factors influence learning? | Nature of reward, punishment, stimuli | Existing schema, previous experiences | Engagement, participation, social, cultural | Diversity of network |
| 3. | What is the role of memory? | Memory is the hard wiring of repeated experiences where reward and punishment are most influential | Encoding, storage, retrieval | Prior knowledge remixed to current context | Adaptative patterns, representative of current state, existing in networks |

| | | | | | |
|---|---|---|---|---|---|
| 4 | How does transfer occur? | Stimulus response | Duplicating knowledge constructs of "knower" | Socialisation | Connecting to (adding) nodes |
| 5. | Types of learning best explained by this theory | Task based leaning | Reasoning, clear objectives, problem solving | Social, vague (ill defined) | Complex learning, diverse knowledge sources |

**Table 2.1 Learning theories (adopted from Ashworth et al, 2004)**

### 2.4.3 Cognitivism

Researchers argued that we as practitioners cannot always condition learners, as in the case with behaviourism. The focus of cognitivism is how students acquire, organise, store, and retrieve information. Ertmer and Newby (2013) commented that cognitivist theorists hold that learners process information. Furthermore, McAnaney, Gordon, Leary, and McCormack (2007) stated that the learner is active during the acquisition of knowledge. The learner can also reason, process information and problem solve, especially when they have provided with a set of rules to follow. This view is also supported by Hoic-Bozic, Mornar, and Boticki (2008). Beutelspacher and Stock (2011) posited that if we, as practitioners, utilise a cognitive approach in relation to learning, then the learner is seen as an individual. We encourage students to become problem solvers and, therefore, any activities planned in a blended learning programme should enable students to use their problem-solving skills. The students enrolled in the programme used for this study are encouraged to use problem-solving skills from the first semester in year-one of the programme.

### 2.4.4 Constructivism

Koopman, Bakx and Beijaard (2014) outlined that constructivism focuses on developing knowledge using the student's own experience to build their own knowledge. Perkins (2006) found that, in the constructivism theory, a learner has three specific roles. Learners take on the role of active learners, social learner and creative learners. Students are encouraged not to be passive learners but that they actively construct or reconstruct knowledge as part of their learning process. Adopting a constructivist approach to learning means that

learning can occur collaboratively and students can also learn individually. According to Al-Huneidi and Schreurs (2011), constructivism theory may increase learning activity between the students in a programme. Students are encouraged to engage with the content and use their first-hand experiences to build new knowledge. This, in turn, encourages students to problem solve, which is an essential life skill. The lecturer also plays a critical role in the learning process, where their role is to comprehend how their students understand the knowledge imparted to them and guide them to critically engage with the material. To do this, Al-Huneidi and Schreurs (2011) suggested that a mix of information communication technology tools should be used to promote synchronous and asynchronous learning to encourage students to create knowledge and promote learning. Indeed, the practitioners in the programme used in this study use a mix of communication tools, such as discussion forums on the VLE platform, quizzes, role plays, and student presentations. However, Bada and Olusegun (2015) posited that a constructivist learning approach can cause interactions among blended learning students that are much higher than if students were in the traditional classroom setting. Therefore, it is important for students to be provided with a physical and online environment that enables them to participate in active or deep learning rather than passive or surface learning.

### 2.4.5 Social Constructivism

The social constructivist theory of learning, according to Croxton (2014) and Picciano (2017), explored how learning occurred within a social setting and examined how students interact with each other to build knowledge and to problem solve. According to Van Merriënboer and De Bruin (2014), social constructivism centres around students discussing content, and the opportunity to learn to use multimedia tools. This can lead to increased student motivation. Students also develop in-depth interpretations of what they have been exposed to. Social constructivism enables students to self-regulate their learning by interacting with their fellow students through a blended learning approach as opposed to the traditional face-to-face approach as the latter discourages students from interacting with each other in the traditional classroom during a lecture session. Cardek and Selvi (2016) highlighted that for blended learning to be effective, it is necessary to ensure there is an interaction between students and their peers and between students and their instructors. Indeed, Croxton (2014) cautioned that student satisfaction depends on whether the student interacts with a group or individual students. The role of the lecturer is an essential element in student satisfaction and learning. Therefore, it is necessary to design learning activities that promote as much interaction as

possible while the learner is enrolled in a blended learning programme both on and off campus. In the programme used for this study, students are required to participate in weekly online activities such as engaging in discussion forums, as well as their weekly synchronous sessions when they are not on campus. This, according to Croxton (2014), ensures that students maintain their motivation, interest, and satisfaction with the programme. However, it should be noted that students participating in online learning expect that there will be less interaction with their peers than in face-to-face lecture sessions.

### 2.4.6 Connectivism

Evans (2015) view of the theory of connectivism is that learners can form networks, both personal and individual, during their programme. The theory aims to create a link between the students and the content that will be to enable them to further their learning, which will enable the student to share information and provide feedback to those in the network. Reese (2014) highlighted that the explosion of online programme options may mean that students prefer the option to build their own knowledge and the opportunity to collaborate with their peers. As higher educational practitioners, we need to provide a space for students that enables them to be part of a community, as well as to work autonomously. Students who participate in the blended learning programme used in this study are encouraged to create networks with their peers, both formally and informally. Throughout the programme, students may be asked to create groups for assignment work and, therefore, formal network connections are created to complete assignments. Students may also create informal connections for social and learning purposes. In this study, students are off campus for most of their semester. Because of this, students may feel that their learning could be improved if they were given the opportunity to tease out their understanding of lecture material with their peers, maybe through an online platform such as the institute's VLE.

However, Mattar (2018) questioned whether connectivism is a theory of learning or a method of instruction. We may view connectivism as a progression of the constructivist theory, whereby there is learning with the addition of technology. As a practitioner, I am of the view that this theory is truly relevant to consider for this study, as the students in this programme are learning through using technology, especially when they are off campus. In addition, it is important for students to maintain a network with their peers because they could suffer from isolation and become de-motivated when they are not on campus, and this can be achieved through the use of technology.

### 2.4.7 Surface and deep approach to learning

Asikanien and Gijebls (2017) are of the view that in today's higher education landscape there is an expectation that HEIs will enable students to become deeply knowledgeable in their chosen field and graduate ready when they have completed their programme. In the previous section, learning theories were discussed. From these learning theories, there can be two approaches to learning: surface and deep learning. Delgado et al. (2018), maintain that if a student adopts a surface approach to learning, the student engages in memorisation and reproduction of knowledge that the lecturer has imparted during a lecture or tutorial session. However, if a student adopts a deep learning approach, the student engages cognitively with the material to analyse and evaluate the knowledge imparted to them and to become problem solvers. The student aims to develop a deeper understanding of the knowledge and how this knowledge relates to prior knowledge that they have been exposed to. Desierto, De Maio, O'Rourke and Sharp (2018) have posited mature students and students in the later years of their study programme adopt a deep learning approach to knowledge that they are exposed to during their lecture sessions. In certain situations, surface learning is necessary for students to move to a deeper learning later in their programme. For example, students on the blended learning programme used in this study may need to memorise particular formulas or theories, especially in the first year of the programme, before the student can move to a deeper learning approach towards the module material. Interestingly, Desierto et al. (2018) maintain that students, during their programme, may move from adopting a deeper learning approach to a surface learning approach. This may occur if students are under severe pressure to meet deadlines or are unable to manage the workload associated with their programme.

## 2.5 Blended Learning Theory

Learning in higher education aims to encourage students to engage in deep learning and become critical thinkers and problems solvers. The blended learning programme that was used in this study aims to ensure that graduates have gained critical thinking and problem-solving skills that will enable them to be productive in their workplaces. Carmen (2002) combined several learning theories centred around the theories of cognitivism, constructivism, and performance support to create a theory of blended learning, as evidenced in Figure 2.2. on the next page, as it found that learners cannot be categorised as one-theory learners.

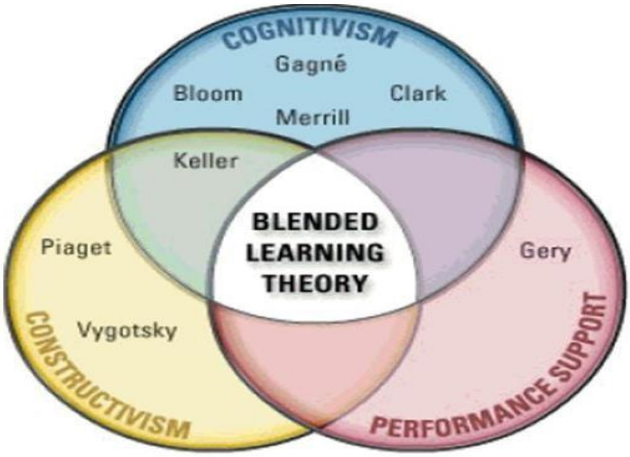


**Figure 2.2 Blended learning theories (adopted from Carmen, 2002)**

In a blended learning context, for example, learners cannot be categorised as either constructivist or cognitive learners. Indeed, Carmen (2002) felt that it was necessary to combine several theories that were developed by theorists such as Piaget (1936), Bloom (1956) and Gery (1991) to develop a model suitable for blended learning.

Lam (2014) argued that despite the lack of a clear definition of the term blended learning, blended learning is now associated with learning that comprises a mix of face-to-face lectures and e-learning. These forms of education are blended to provide students with an enhanced learning experience. Simarmata, Djohar, Purba and Juanda (2018) contend that introducing technology and the subsequent advancement in technology has enabled HEIs to use new learning spaces that enable students to engage with their programmes. Manti (2015) is of the view that blended learning can encourage deep learning. Furthermore, Ma'arop and Embi (2016) aruged that advancements in technology have led to the latest trends in higher education and learning environments and that traditional face-to-face classroom delivery may no longer be suitable for all students. The concept of blended learning may be viewed as a better way of delivering lecture content than the traditional face-to-face lectures, as it enables increased access for students, and increased flexibility which may encourage student participation, engagement, and self-directed student learning. Oliver and Stallings (2014) put forward the argument that educators need to focus on issues such as the traits of their learners, the educator's style of teaching and experience with blended learning delivery, module goals and instructional strategies, the use of online material and student access and use of the internet. Practitioners also need to consider elements such as logistics when students switch between

online and face-to-face environments. Therefore, individual institutions have to consider the blended learning model so that it will suit their programme or institutional offerings. There are several different models associated with blended learning. Some of these models focus on face-to-face delivery while others emphasise the online delivery element. There is also a vast number of blended learning models that place heavy emphasis on the technical infrastructures used to deliver blended learning programmes. As the focus of this thesis is on learning and learning spaces, the Khan's Octagonal Framework and the TIPS Model of Blended Learning will be discussed as these models emphasise the delivery of the content, a social perspective of blended learning as well as the institutional perspective of blended learning offerings.

### 2.5.1 Khan's Octagonal Framework

This framework focuses on how institutions or practitioners can create flexible and meaningful learning environments for students. In Figure 2.3 below, there are eight elements to Khan's framework which include, pedagogical, technological, interface design, evaluation, management, resource support, ethical and institutional. Nsofor et al. (2014) held that it is important to consider the elements in this framework when planning and implementing a blended learning programme. However, for this thesis, the pedagogical element particularly interests me. As a practitioner, I need to understand how students learn and how to enhance their learning experiences, both face-to-face and in an online environment.

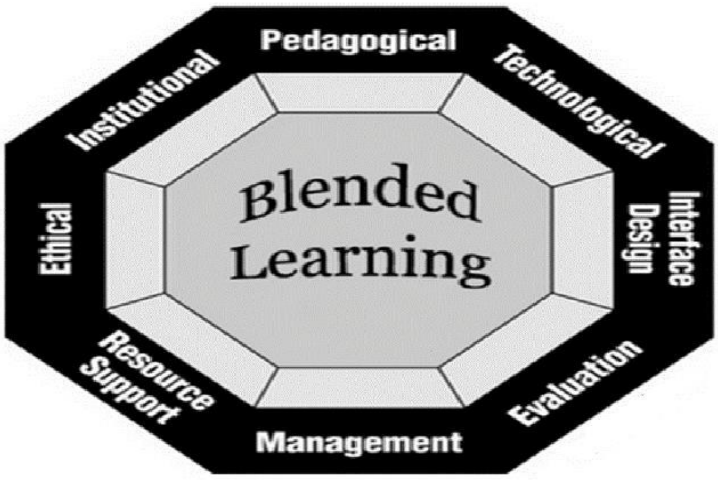


**Figure 2.3 Khan's Octagonal Framework (adopted from Nsofor et al, 2014)**

From a pedagogical perspective, practitioners need to consider the content that will be delivered and analyse the cohort of students and their ability to learn. Practitioners need to consider what learning strategies will best suit the content to be delivered and their cohort of students. The students in this study are mature students who have considerable workplace experience. These students may require several learning strategies, such as tutorials, case studies, role play interaction, collaboration, and storytelling, to give them the best possible learning experiences. Practitioners utilise these educational strategies in this programme to encourage deep learning and engagement over the duration of the module.

### 2.5.2 The TIPS Model of Blended Learning

Lam (2014) created a holistic model of blended learning referred to as TIPS model of blended learning. As a result, I viewed this model as being the most suitable model with which to relate to the blended learning programme used in this study. This model addressed the key requirements for offering blended learning programmes, such as pedagogy, technology, social perspective, and institutional perspective. These four elements depicted in Figure 2.4, according to Lam (2014), should be considered when designing or developing a blended learning programme.

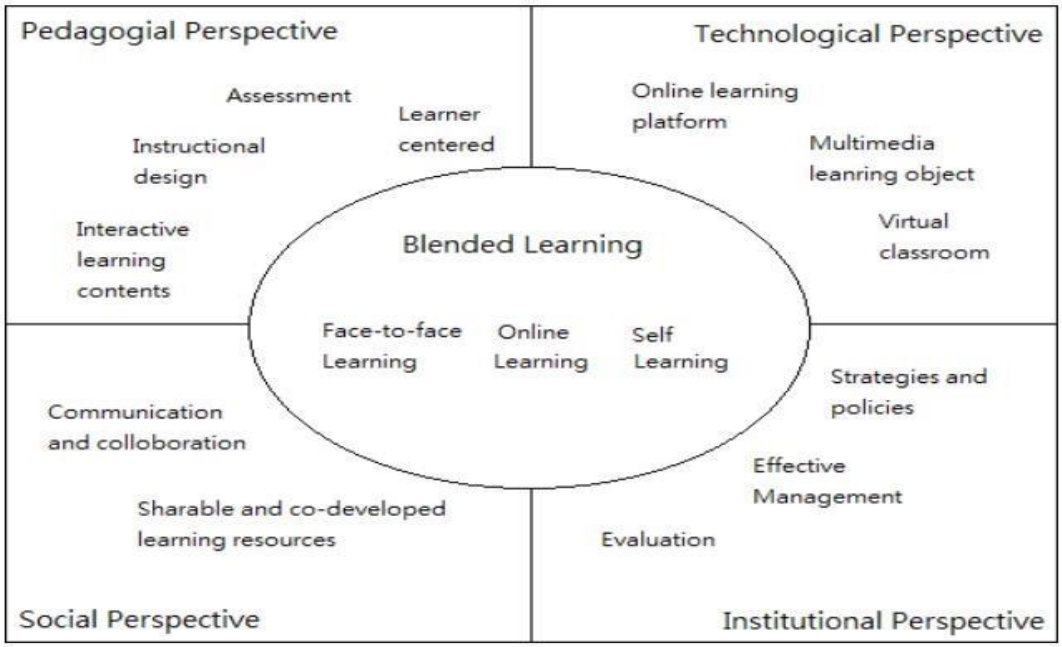


**Figure 2.4 The TIPS Model of Blended Learning (Adopted from Lam, 2014)**

Lam (2014) argued that learning in a face-to-face class differs from learning in a blended learning environment. Therefore, from a pedagogical perspective, when blended learning programmes are being implemented in an institution, attention should be focused on redefining the learning hours that occur in a physical classroom and in an online context. In the programme used for this study, lecturers had to redesign their lesson plans that were originally designed solely for face-to-face sessions to specifically include activities for online sessions. Activities also need to be designed for students to complete after their lecture sessions. Lecturers on this programme often worked with learning technologists to develop course content for their modules for both the synchronous and asynchronous online sessions. Lam (2014) alluded to the fact that learning in a blended learning programme should be learner centred. A learner-centred approach to learning is promoted in the programme in this study through the use of classroom and virtual discussion boards, workplace-based projects, relevant role plays, and case studies. These activities encourage students to reflect on the content presented to them and develop knowledge and skills that are relevant in the workplace, undertake critical thinking and problem solving and participate in collaborative projects. To enhance the learning that takes place in the programme in this study, the technological aspect of this model has three fundamental areas that apply to the programme used in this study. First, the learning platform that is used by practitioners to upload lecture notes and assessment details. Second, the variety of multimedia learning objects used by practitioners on the programme, which in the case of the programme used in this study, is mainly a mixture of videos, audio, and quizzes. However, from a practitioner perspective, it is important for these multimedia learning objects to be relevant and up to date to ensure students get the best possible learning experience. Third, the virtual classroom used by practitioners to deliver lecture content which has to have a degree of flexibility, as students attending the blended learning programme in this study attend classes online when they were not on campus. Even though the sessions are synchronous, we record them to enable students who cannot attend a session to can view the recording later. We expect students to participate in the online classes, interact with their peers and take part in online activities.

The social perspective of the programme is evident in the communication that is encouraged between students and their peers. Across the programme, students are encouraged to collaborate to complete projects. There are collaborative learning spaces such as student canteens and group project rooms throughout the institution used for this study. Students are also encouraged to continue to communicate with each other when they are off campus. Using

social media platforms, such as Facebook Messenger and WhatsApp, is promoted in the first weeks of the first year of the programme to ensure students do not feel isolated when they are not on campus. Students are also encouraged to source their own materials to assist them with their assignments and share articles and sources of information with their peers through the VLE platform. However, it should be noted that, from a social perspective of the model, there is an element that is not prominent, which is instructor/practitioner involvement. This element is central in the Social Presence Model of Blended Learning, which was developed by Whiteside (2015). Whiteside (2015) highlighted the key role that lecturers play, especially in online settings. In the programme for this study, the practitioner encourages and promoting critical thinking among students. They create ice breaker activities at the start of a programme to motivate students to create relationships and connect on a social level, as well as additional activities throughout the programme to ensure the students maintain their relationships in their cohort. Although Whiteside's Social Presence Model is not as holistic in its approach to blended learning, the role of the instructor is essential to the learning experience of a student, especially in an online environment. Lam (2014) is of the view that from an institutional perspective that if an institution is to introduce a blended learning programme, it is important to ensure that it aligns with the values of the institution. Although the institution used in this study does not have a specific blended learning policy, it aims to focus on offering additional blended learning programmes in the future. The values of the institution are inclusivity and growth, and the offering of blended learning programmes has the potential to offer undergraduate qualifications to students who would not traditionally have access to higher education due to work commitments and access to on-campus education.

## 2.6 Student Engagement

An important element associated with learning is the ability of the student to engage with the material. In the previous learning section, the constructivist, socio constructivist and connectivist theories of learning require students to engage with their module material. Therefore, the engagement of students is an essential element that practitioners need to consider when lecturing on a programme. Vaughan (2010) and Poon (2012) put forward the argument that student engagement has become a crucial topic in higher education. Although the term student engagement may seem simplistic, Griffin (2014) stated that it is broadly defined. Indeed, Hu and Koh (2002) attempted to define student engagement as "the quality of effort students themselves devote to educationally purposeful activities that contribute directly to

desired outcomes". However, Almarghani and Mijatovic (2017) stated that student engagement means different things to different people. Student engagement in HEIs often presents itself as students wanting to invest time in their study and their overall interest in their programme. In this study, although I agree with Almarghani and Mijatovic (2017), the elements of student engagement identified by Ryan et al. (2019), which are behavioural, emotional, and cognitive. Behavioural engagement refers to student participation, attention, and the levels of effort that students display during their programme. In the context of the programme used in this study, students were given the opportunity to answer and ask questions in relation to the content covered in the lecture sessions when they were on or off the campus. A student's level of interest and enjoyment reflects their emotional level of engagement. Lecturers in this programme often gauge the students' level of interest in the programme based on their attendance in both a physical and virtual classroom and the ability to ask and answer questions in relation to the module content. Finally, cognitive levels of engagement are often displayed in the student's ability to self-regulate and to engage in critical analysis, for example, in their assignments or in their ability to put forward arguments in relation to theories or journal articles.

Manwaring et al. (2017) alluded to student engagement as the "holy grail" of learning. Indeed, student engagement has become one of the main goals of HEIs when offering blended learning programmes. Delialioğlu (2012) argued that there is a trend of dissatisfaction with education among students in higher education, which would indicate that students are not having the educational experience that perceive they would have in higher education. Therefore, if students are to learn and develop in higher education, then there needs to be a focus on student engagement and how this concept can advance through activities planned by lecturers. Griffin (2014) supported this, when he stated that there should be a focus on student learning experiences in relation to activities both inside and outside the classroom. Indeed, Downing et al. (2014) commented that HEIs are focusing on student engagement to promote deep learning, whereby students critically engage with the lecture material throughout their programme.

Almarghani and Mijatovic (2017) stated that if student engagement is to be promoted in an institution, then staff also needs to be engaged. Institutional policies and practices should be in place in relation to student engagement, that should indicate how both staff and students can be engaged in the programme. It is imperative that online engagement interest an

institution, especially when part of the programme occurs in an online environment. However, there may be issues related to engagement because the online environment may be very much a one-way method of communication, and the student may take on passive roles in the communication process. It is also necessary to focus on the facilities available within the institution and the experiences of students with those facilities. Almarghani and Mijatovic (2017) found that information communication technology (ICT) usage plays an important part in encouraging students to be actively engaged in their activities. The programme chosen for this study requires students to use ICT to engage with their programme both on and off campus. Although most of the students who participate in the programme have good ICT skills, there is a small cohort of students who may need some ICT training in the first week of the programme to ensure they can navigate the VLE for the programme.

### 2.6.1 Encouraging Participation and Engagement

Strange and Banning (2015) highlighted that if an institution wants to promote successful learning, lecturers need to enable students to become involved in their own learning. Almarghani and Mijatovic (2017) highlighted the key role of the lecturer in the student engagement process. However, their study also highlighted how lecturers activate student learning is more important than the personality and availability of the lecturer. Evidence of this is present in the programme used in this study when students are encouraged to participate in activities during the online synchronous sessions. Often, lecturing staff divide students into separate groups online, and the students must work together in their groups to complete the activities, as well as engage in asynchronous discussion forums. In more recent times, in relation to online delivery on content, Wicks et al. (2015) commented that practitioners are more interested in comprehending how to teach in an online setting than the actual technology used to deliver the content online. The academic staff in the blended learning programme used in this study aim to ensure that the students are engaged with the material throughout their programme.

de Borba et al. (2020) posited that one of the most important elements of student engagement is the interactions between lectures and students and between students and their class peers. Ryan et al. (2019) is of the view that peers are important for student engagement from a socialisation, support, and social status perspective. Students are provided with an induction session prior to the commencement of the programme to encourage them to interact with each other and swap personal details if they so wish, which may provide students with a

possible support structure, especially at the start of the programme. Group work is promoted throughout the programme to complete projects, and this is, again, intended for support and socialisation purposes, which is important because students spend considerable amounts of time off campus during the semester.

### 2.6.2 Student Engagement in an Online Setting

Redmond, Abawi, Brown, Henderson and Heffernan (2018) highlighted that HEIs are progressively moving online, and the management in these institutions are looking at how to ensure students are engaged in their online platforms as a high proportion of students who participate in online learning tend to be non-traditional students who are juggling work commitments, family life, and studying. While students who are learning through online platforms need to learn independently, attention may need to be placed on ensuring that students create meaningful social relationships with their peers not only online but also outside of the online classroom. However, Gray and DiLoreto (2018) noted that students can sometimes feel disconnected from their peers and lecturers, especially in an online context. de Borba et al. (2020) posited that difficulties in engagement with an online element of a programme may be due to low levels of self-regulation, or a student prefers on-campus lectures as opposed to online lectures. Gray and DiLoreto (2018) found that if students are provided with content that applied to what is currently happening in their industry, this may provide a solution to disconnectedness that students experience. The lecturers in the programme chosen for this study possess considerable amounts of industry experience and, therefore, can provide students with a variety of scenarios and examples so the content they are exposed to in the classroom can be integrated into their workplace. Lecturers can also interact with students through the provision of timely constructive feedback on student performance.

Lindén et al. (2019) commented that there is limited research on the concept of the connection between student engagement and physical and virtual learning spaces. However, to date, researchers have identified that informal and formal learning spaces enable the creation of networks with other students, which may enable students to engage more with the lecture material. Researchers such as Vanichvatana (2020) and Cunningham and Walton (2015) argued that informal spaces provide students with opportunities to not only engage with lecture material in a more meaningful manner, but also develop close bonds with their peers.

### 2.6.3 Challenges for Learning and Engagement in a Blended Learning Programme

Hu and Hui (2012) posited that powerful learning engagement in an institution has a positive impact on student satisfaction and the effectiveness of their learning while enrolled in a programme. However, there are several challenges that need to be overcome in relation to learning and engagement in blended learning programmes from both a student and practitioner perspectives. These are: available time for reflection, information overload and pedagogical practices that encourage student engagement. Moon (2004) is of the opinion that reflection in an academic sense encourages students to reflect on what they have been exposed to during their lectures and by undertaking reflection, students are encouraged to seek clarity or to undertake particular actions as part of their programme. Coulson and Harvey (2013) are of the view that reflection is necessary for students to engage in deep level thinking and learning rather than surface learning during their time in their higher education programme. Students in the programme chosen for this study are often asked to reflect on the lecture material presented to the class and relate it back to their workplace.

A second challenge is addressing information overload. Students in this study work on a full-time basis. They only have three or four weeks on campus, and their learning occurs online for the remaining eight or nine weeks of the semester. With learning occurring both on campus and online during the semester, students may feel pressure to keep up with the pace of learning. Shrivastav and Hiltz (2013) argued that students experience information overload when they are presented with a quantity of information that is beyond their ability to process. In addition, information technology tools and software have created a situation in which information overload may occur, especially for students who participate in online learning. Feroz et al. (2021) wrote that information overload can occur in several ways. First, it may arise because of the information being too complex in the time that the student has been given to process it. Students in the blended learning programme in this study are expected to participate in face-to-face classes when they are on campus. These students could be timetabled for 30 to 35 hours of contact lecture time while they are on campus. When they are off campus, the students are required to attend synchronous online classes and take part in online discussion forums and group activities. Some students in blended learning classes may not be able to process copious amounts of information and interact with their classmates or participate in discussion forums online. Therefore, these students may experience stress and confusion when they are presented with large quantities of information and activities to undertake. Second,

some of the information presented to students may be outdated or not relevant to the industry in which the student is currently employed. Therefore, it is important for people with industry experience to be involved in creating and delivering lecture content. Third, the information is poorly organised and presented, therefore hindering the student's ability to process the information. It is imperative for students to be presented with content logically to enable them to process the information and make links between elements of the module.

A third challenge related to promoting learning and engagement in a blended learning programme is that practitioners must consider their pedagogical practices. Holley and Dobson (2008) are of the opinion that the traditional classroom teaching practice is no longer suitable, and therefore, if education is to be accessible to all students, then it is necessary to change the way practitioners teach. Indeed, Schmidit et al. (2015) argued that the lecture theatre is considered the place where students feel the least engaged. Students find it difficult to remain engaged throughout long lecture sessions, therefore students who attend the lecture theatres do so to gain an insight into what may appear on the examination paper rather than to obtain in-depth knowledge in relation to the module that they are undertaking. King and Arnold (2012) hold the view that course design, communication and motivation are crucial factors that affect the success of a blended learning programme and identified three issues that practitioners need to consider, especially when teaching online in a blended learning programme. First, there needs to be a space for encouraging online discussion and collaboration, which may also provide students with a space for a community of practice. This can be for academic and social purposes, which would be similar to what students would experience if they were on campus. Second, practitioners need to consider providing lecture material in both digital and text formats, which may provide students with an opportunity to read material offline and in physical format if they so wish. Third, the recency of the content that practitioners are delivering to students, if students can see that the lecture material is up to date, they may have a desire to see if they can implement it in their workplace when they return to work.

King and Arnold (2012) highlighted the importance of engagement when students are participating in synchronous activities. Draus et al. (2017) found that students who take part in asynchronous learning were more motivated to learn when they felt they had a connection to their lecturers or peers. As students in the programme are off campus for considerable periods of time, there is a possibility that students will lose engagement with their lecture content and the programme itself. Therefore, practitioners who use recorded video content provide not only

a teaching presence but also a social presence. These videos would encourage students to remain engaged with the material. In addition, students could be asked to post comments on these videos through a discussion forum to encourage students to converse with each other outside of the synchronous online class.

## 2.7 Learning Spaces

Warner and Palmer (2015) are of the view that learning is moving from being instructor-led to being self-directed and student-led. Indeed, the use of student-centred learning should be encouraged where the focus is on promoting group collaboration and problem solving, as opposed to the practitioner instructing the student. This is supported by McCarthy (2016), who is of the view that student-centred learning is active in nature because the student is required to engage with the content to develop deep enriched thinking about a subject which may require students to discuss and debate the content that they have been exposed to with their peers. Therefore, institutions that offer blended learning programmes need to ensure that there is as much collaboration as possible between students by effectively designing activities that heavily promote collaboration. If students are to engage in student-led learning, then they must have a space in which to do this. Leijon (2016) alluded to the fact that learning spaces can have major impacts on student learning experiences. Over the decades, educators and students in higher education settings have taken for granted that physical meeting spaces on campus must be sterile in their style and that there has to be uncomfortable seating in traditional classrooms. Ellis and Goodyear (2016) and Leijon (2016) argued that the concept of learning spaces and how these are managed in higher education is, to date, very much under researched, and this is evidenced in the limited number of theories present in the area of learning spaces. Furthermore, the research that is available is very anecdotal in nature. However, Ellis and Goodyear (2016) identified trends in learning spaces in higher education. These include student expectations that institutions will offer a broad choice of learning spaces, the blurring of physical and virtual learning spaces, and students expecting flexibility in their learning spaces.

Thody (2008 as cited in Hall, 2013) defined learning spaces in higher education as "conceptually holistic, loosely coupled interconnections of all formal and informal, on and off campus, virtual and physical facilities, sites and services" (p. 2). This is a truly relevant definition of learning spaces in this study, because students use learning spaces that are perceived as being formal and informal, as well as spaces that are viewed as both physical and

virtual, and these learning spaces can be both on and off campus. This is in line with the views of King (2016) and Ellis and Goodyear (2016), who highlighted that learning spaces today can be mobile, online or physical spaces that students interact with. Although Chism (2006) commented that space can be viewed as impacting student learning in such a way that it can either enhance or constrain learning. McNeil and Borg (2018) raised concerns in relation to the issue that there is little empirical evidence to support the effectiveness of learning spaces in higher education. This may be that there has been limited research on the effectiveness of learning spaces in higher education settings.

Learning spaces can be classed as formal or informal. Formal learning spaces in higher education, for example, the classroom and the library, have a formal atmosphere attached to them. Informal learning spaces, such as the canteen or group project spaces, have a more relaxed atmosphere, where students may be willing to engage with one another, as well as with the course material. In today's world, there are many learning spaces available to students. There are online learning spaces that also need to be considered, such as the online classroom in a VLE or the use of social media platforms. I have always been curious how students navigate these learning spaces and especially how they feel about learning spaces when they are enrolled in a residential blended learning programme, where they may not be physically on campus for the entire duration of the programme.

### 2.7.1 Formal Learning Spaces

Ellis and Goodyear (2016) and Strange and Banning (2015) identified formal physical spaces as spaces such as the traditional classroom, lecture theatres, active learning classrooms, labs, and the workplace. Thomas (2010) stated that the classroom was historically linked to the management of teaching and learning, which required the lecturer to deliver lecture material specifically. In the context of the students used for this research, we may also see the workplace as a formal learning space for the students because they are working on a full-time basis while undertaking their studies. Thomas (2010) made an interesting observation that the traditional classroom environment may negatively affect the engagement of students. Brooks (2012) found that formal learning spaces, such as lecture rooms, can have a powerful impact on both teaching and learning in higher education. However, a sizeable portion of the programme is delivered through a VLE. Sølvberg and Rismark (2012) outlined that with the recent developments in technology and learning, there is a possibility that more learning will occur outside of the traditional classroom than in it. For students to use the VLE for their learning,

the lecturer needs to comprehend how students use and interact with it. There is also the issue that some lecturers find it difficult to devise ways to develop student learning, especially during synchronous online learning sessions. In this study, students participate in synchronous lectures once a week through their dedicated VLE. Students are expected to interact and engage with the lecturer and the module material in the same manner as they would in the physical face-to-face classroom. The main benefit of the VLE for students is that it offers them flexibility in how and when they learn. Students can log into the synchronous session either at home or at work. Online lecture sessions are recorded every week, so if a student misses a session, they will have the opportunity to view the recording at a later date and time. Indeed, even if a student was present at the session, the recording enables them to review and reflect on the session material at a later date.

### 2.7.2 Informal Learning Spaces

Kolb and Kolb (2005) made an interesting observation that learning spaces go beyond the classroom and the lecturer. However, Thomas (2010) commented that there is a presumption that learning only occurs in formal spaces, such as the classroom. Indeed, Cunningham and Walton (2015) are of the view that more learning can take place in informal learning spaces than in the formal lecture room. Thomas (2010) was of the opinion that in recent times, it has been recognised that most learning takes place in informal learning spaces, and these informal learning spaces may not have been recognised as learning spaces in the past. Therefore, there is a need to focus on informal learning spaces. Cunningham and Walton (2015) posited that informal learning spaces can be viewed as a mixture of interactions and experiences that are complex. These informal learning spaces can be on campus or off campus. Ellis and Goodyear (2016) found that informal spaces are spaces where the lecturer is not present. While sometimes students construct knowledge individually, Cunningham and Walton (2015) highlighted that there is also the opportunity to construct and discuss knowledge socially. Strange and Banning (2015) provided examples of informal learning spaces outside the classroom, such as libraries, social gathering spaces, corridors, student union spaces, canteens and outdoor areas (such as smoking areas on campus). For this study, participants identified several informal learning spaces, such as libraries, group study rooms, hotel rooms, pubs, cafes and the home office. Many elements impact student experiences in informal learning spaces. These include the level of noise, the use of technology, the opportunity for social interaction and the space itself.

Since the start of this century, the traditional use of the library in higher education for the borrowing of physical textbooks has been in decline. Although libraries are traditionally viewed as quiet spaces, Cox (2018) stated that librarians are focused on changing the library to become a more flexible learning space, which would allow for some elements of socialisation, the use of technology along with an opportunity for individual studying. A second example of an informal learning space is the group project room. This space can be viewed as a social learning space where students can come together to work on projects and assist each other in constructing knowledge (Vanichvatana, 2020). Strange and Banning (2015) posited that social learning spaces can encourage students to interact and collaborate with each other, which is the case for the group project room. Furthermore, social learning spaces in educational settings can encourage effective engagement between students, which may lead to further collaborations and group work.

Another informal learning space could be pubs and cafes because of their environmental factors. Sensory elements, such as the lighting and seating in a pub or a café, along with the possibility of socialising with others and the convenience of the learning space concerning location, can all influence students to choose informal learning spaces outside of the institute's campus. Hunter and Cox (2014) are of the view that some students prefer some background noise to help them focus on what they have to learn. Students in higher education may also view their home environment as a learning space, and as mentioned previously, sensory elements are important because they make students feel comfortable in this environment. In this study, learning in a hotel room may be viewed as similar to learning in a home environment, as the student may stay for three or four weeks at a time in a hotel room for their on-campus sessions. However, Vanichvatana (2020) highlighted that there may be significant issues with concentration in these particular learning spaces because of multiple distractions in these environments. In addition, these spaces may not be suitable for collaborative work, which students must undertake for this programme.

Students may also use informal virtual learning spaces. Ellis and Goodyear (2016) commented that social media platforms, such as Facebook and WhatsApp, could be viewed as informal learning spaces. In this study, students are encouraged to use social media platforms to maintain communication between residential sessions during the academic year. Whichever learning space is utilised by the student, flexibility should be considered from both the student and practitioner perspective and by management when they are considering learning policies

in the higher education setting. In today's world, students have a desire to learn and study whenever and wherever they wish. With the increasing use of technology, HEIs need to consider how students are using learning spaces. Those designing learning spaces in higher education need to consider how pedagogy, technology and the learning space are integrated to ensure that the learning space is flexible enough to suit the needs of the learner.

### 2.7.3 Learning Spaces and Learning

Strange and Banning (2015) suggested that the purpose of learning spaces in higher education is to enable students to learn and to remember the purpose of that particular space. In addition, the learning environment should enable students to develop particular skills, such as critical thinking, leadership, an understanding of the differences among learners and communication skills. Therefore, learning spaces should be designed with an understanding of how learners interact with one another, practitioners and lecture material.

McDaniel (2014) posited that students today adopt a social approach to learning where the student collaborates with their peers that enables them to engage in a deeper level of learning. Indeed, Pates and Summer (2016) hold the view that learning theories that encourage effective student learning in higher education are constructivist and social constructivist in nature. Cleveland and Fisher (2013) highlighted that the constructivist theory of learning provides a focus on space, and this can be utilised to establish powerful learning environments. Furthermore, Beckers, Van der Voordt and Dewulf (2016) are of the opinion that students use physical space in higher education to collaborate and interact with other students. McDaniel (2014) commented that the demographic profile of students has changed and therefore "every space is a learning space". Students today are turning to virtual learning spaces as well as using physical learning spaces. However, to date, there is little research on student preferences for particular learning spaces on campus. What we often overlook in academic journals in relation to higher education is that learning often occurs when the student is off campus in spaces such as bars and restaurants, in the student's home or study or in any space in which the student is comfortable learning.

Radcliff et al. (2008) designed the Pedagogy, Space and Technology (PST) framework to aid educators in designing and evaluating learning spaces in higher education.

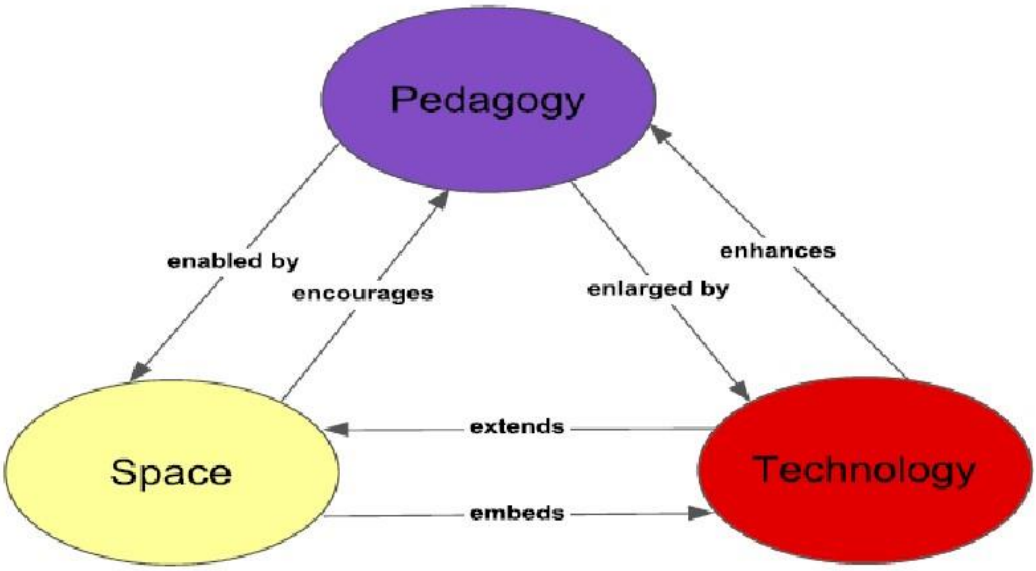


**Figure 2.5 Pedagogy, Space and Technology Framework (adopted from Radcliff et al, 2008)**

The framework depicted in Figure 2.5 above was the outcome of the research conducted for the Next Generation Learning Spaces programme at a university in Australia. The three elements in the framework are interconnected because each of the elements influences the others. In today's higher education settings, pedagogy can be enriched by technology, and, in turn, technology can enhance pedagogy. In the programme used in this study, pedagogy occurs both inside and outside the class through the availability of technology. For example, lecturers often use PowerPoint slides and other software, as well as applications such as Kahoot! to deliver student content. Technology enables students to participate in synchronous classes, as well as asynchronous activities, both in the institution's VLE and through social media applications. Prior to introducing technology in the classroom, the spaces available to higher education students ar more physical, except for students enrolled in a distance education programme. What is important is the promotion of active learning in higher education. Therefore, Lee et al. (2018) argued that if active learning is to be promoted, then learning spaces need to allow for collaboration, active learning and be learner-centred, and this is based on the theory of social construction. With the proliferation of technology, students today have

a choice of more learning spaces than ever before, and these learning spaces can either be physical or virtual. The learning space that a student chooses can enable them to learn when and where they want. The students in this study work full-time and must often fit their learning schedules around their work schedules. Lecturers use the institution's VLE to lecture students, and students use the VLE and social media applications to engage with each other and assist each other in comprehending the material that they have been exposed to. Strange and Banning (2015) suggested that learning spaces on a campus, be they physical or virtual, should be designed in a way that encourages learning and engagement throughout the students' time in a programme. For example, Pates and Summer (2016) are of the view that providing furniture that is flexible to the needs of the learners rather than fixed lecture theatre style seats, multiple charging ports and Wi-Fi connection to enable students to use digital devices during lecture sessions or in breakout rooms would provide students with a more conducive environment to meet their learning needs.

## 2.8 Blended Learning Policy in Higher Education Institutions

When devising blended learning policies in higher education, it is important to review how students learn and engage with their learning and what learning spaces they utilise throughout their programme. Tshabalala et al. (2014) found that higher education, today, aims to provide students with learning experiences that are accessible, student-centred, and focused on technology. A blended learning programme can enable this to be offered to students. Additionally, Bokolo et al. (2020) are of the opinion that blended learning also offers flexibility to both lecturers and staff concerning learning, engagement, and the delivery of module content. However, Lim et al. (2019) commented that even though blended learning is being adopted more in HEIs, sometimes it may be in a limited capacity. There may be an absence of an established blended learning implementation strategy in some HEIs. This is clear in the institution that was used in this study. Although there is no clear blended learning policy presently in place in the institution, there is support for offering blended learning programmes within the institution from senior management. However, Tshabalala et al. (2014) and Graham et al. (2013) argued that if blended learning is to be implemented, it is imperative for there to be a clear policy in place as this can be used as a framework to guide lecturing staff. Indeed, Lim et al. (2019) furthered this argument by stating that if blended learning programmes are to be offered across an institution, then there needs to be a holistic approach whereby all aspects of delivering a blended learning programme are considered prior to implementation, which

would require management at all levels across the institution to support and promote blended learning.

Lim et al. (2019) and Porter et al. (2016) identified several challenges that need to be addressed prior to implementing a blended learning policy in a HEI. First, there may be instances in which academic staff may not share the same passion as management for implementing or lecturing in blended learning programmes within the institution. Second, there may be concerns related to the workload associated with developing materials for blended learning programmes. For example, in the instance of blended learning programme in the institution used in this study, there is a significant workload associated with recording asynchronous material and monitoring activity and interacting with students on discussion boards/forums on the institution's VLE platform over the course of the module. Third, there may be a lack of support for lecturing staff on an administrative level, such as having a moderator during synchronous delivery. Furthermore, training support may also be required, as not all lecturing staff members are familiar with how to deliver blended learning programmes. The HEI should provide this prior to the commencement of the blended learning programme, so lecturing staff do not experience stress or anxiety in an environment in which they are not familiar. Lim et al. (2019) interestingly observed that, sometimes, because of the challenges identified above, it may be reasonable to claim that HEIs might not sustain current practices in blended learning or adopt blended learning practices across the wider institution.

Prior to introducing a blended learning policy in an institution, it is imperative for management to provide support for an institution-wide blended learning policy. Therefore, Hilliard (2015) is of the view that management must make certain that the required training and equipment is available to the people involved in delivering blended learning programmes. In addition, management needs to be cognisant that students in blended learning programmes are looking to enrol in programmes with the flexibility to fit around their work lives and provide them with the required knowledge and skills to progress in their current careers. When creating a policy around implementing blended learning in an institution, Hilliard (2015) stated that areas such as resources, teaching workload, programme validation and the redesigning of syllabi all need to be contemplated. In addition, the development phase of the blended learning policy needs to consider the institution's mission statement and ethical stance because these can impact how blended learning fits into the overall vision of the institution.

Adekola et al. (2017) made a remarkably interesting point that students in higher education today seek to have engaging experiences and those students learn in many ways, not just through traditional face-to-face teaching. However, if a HEI is to adopt a blended learning approach, then, as Thurab-Nkhosi (2018) and Lim et al. (2019) stated, HEIs must consider devising and implementing blended learning policies that can cause a meaningful change in how an institution operates. Therefore, Lim et al. (2019) proposed a seven-dimension framework (see Figure 2.6) to enable higher educational institutions to strategically plan for blended learning programmes.

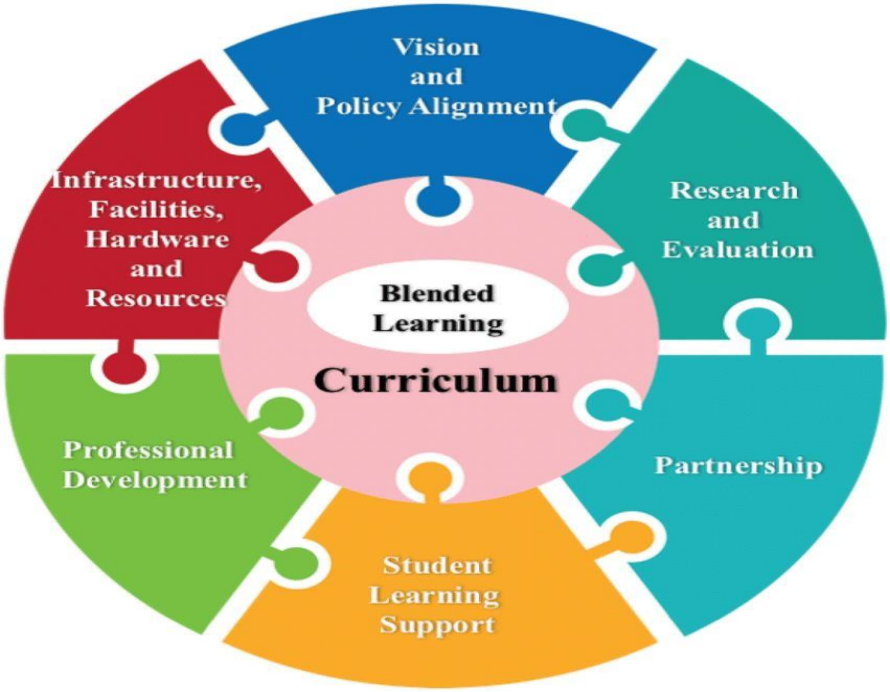


**Figure 2.6 Framework for the strategic planning of HEIs for blended learning (adopted from Lim et al, 2019)**

The first element of the proposed framework is the curriculum. Curriculum development should be explored by asking pertinent questions such as what the purpose of the curriculum is, how can learning outcomes be determined and how can the curriculum be better organised. Lim et al. (2019) interestingly observed that knowledge is constantly evolving in relation to module content, and therefore, there is a need to consider what knowledge is relevant and what competences are necessary for the workplace. This is especially relevant to the institution that was used for this study because the blended learning programme that was chosen was developed to provide students with a range of work-based skills to help them progress in their careers. As previously mentioned, blended learning programmes can also

encourage deep level thinking, reflection and engagement with the content associated with the curriculum. To achieve this, a variety of tools must be used, such as technology and innovative teaching techniques, and not just standard PowerPoint slides.

The second component that Lim et al. (2019) proposed is a focus on the vision and policy alignment for the institution. Although the institution currently does not incorporate blended learning into its vision, for the successful implementation of blended learning programmes in the future, it is necessary for the institution to promote the incorporation of blended learning into the teaching and learning that will be undertaken in future blended learning programmes. Furthermore, a shared vision must include input from students, lecturers, and the institution itself. This is because institutions are likely to adopt a blended learning approach in an attempt to offer students greater flexibility of access, enhance learning outcomes for modules, and for overall cost savings in relation to delivering programmes. However, it should be noted that when devising a shared vision, conflict is likely to occur because lecturers may prioritise student experience and flexibility, while senior management may want to prioritise cost savings. The latter concerns Irish HEIs. Even before the COVID-19 pandemic, there were funding issues across higher education in Ireland. In a recent article in the Irish Examiner, Casey (2020) stated that there is likely to be an estimated shortfall in higher education of over €350 million for academic years 2020/21. Going forward, if there is an emphasis on introducing blended learning programmes in the institution, there is a need to align blended learning with the structure of the institution. This is especially true in the instance of the institution that was used in this study. A blended learning plan needs to be created and disseminated across the institution, along with specific blended learning policies and procedures. Besides encouraging the acceptance of blended learning programmes, the senior management in the institution will have to reflect on ways to reward and support members of academic staff that are taking part in blended learning programmes. For example, ensuring that there are adequate delivery pods, software and hardware, the provision of a moderator for larger cohorts of students in blended learning programmes and the allocation of the reduction of teaching hours for academic staff to allow for time to be spent on recording lecture material and sourcing additional resources for asynchronous delivery.

A third element identified by Lim et al. (2019) highlighted is a need for a structured approach to delivering blended learning programmes in higher education settings. This can include a focus on the infrastructure, facilities, hardware, resources and support. As mentioned

in the previous section, in this institution, there is a need to ensure that there are adequate teaching pods and access to hardware, especially for lecture sessions that are delivered online. There is also a possibility that resources could be shared among lecturers who are involved in blended learning. For example, if a voiceover video were used for a module, there is a possibility that it could be shared so that another lecturer could use it in their module. Although academic staff may be perceived to be competent in using technology, there are times at which academic staff need assistance with using technology, especially new software in which glitches may occur, that can affect the delivery of their content.

The promotion of personal development for academic teaching staff is the fourth component of the framework that Lim et al. (2019) identified. Gaebel, Zhang, Stober and Morrisroe (2021) conducted a survey with 368 HEIs in 48 European countries. The survey aimed to investigate digital enhanced teaching and learning in these HEIs. The study identified that 80% of respondents offered digital skills training to academic staff. Furthermore, 75% of the respondents stated that exchange platforms were made available to academic staff who are engaged in digital learning, where staff had opportunities to create a community of practice to share ideas and create future opportunities around digital learning. The figures above would indicate that staff in these HEIs are well supported in relation to digital learning. However, it should be noted that this is not the case in all HEIs in Ireland. This survey highlighted that even though 81% of the respondents agreed that there were training opportunities for staff in relation to digital learning, sometimes staff do not have access to training or resources. Additionally, the survey identified that even if staff have access to training, there is a need for more enhanced training for some staff who are familiar with the basics of digital learning and for the provision of continuous professional development programmes to enable staff to enhance their skills in this area. Interestingly, the results of this survey also identified the need for the development of a human resource policy to further digital learning needs of academic staff in institutes.

Student learning support is the fifth element that institutions need to focus on when developing plans to implement blended learning. It is imperative for the senior management in HEIs to be aware that not all students have equal access to technology. For example, not all students may have access to a technological device. Students may not have the same level of experience or knowledge of information technology. Therefore, students may need technical support, especially at the commencement of their programme. In the instance of the programme used in this study, students were provided with training on how to interact with the VLE for the

programme prior to the commencement of the programme. Students were also provided with technological support throughout the programme.

Lim et al. (2019) identified partnerships as the sixth component in their framework. Partnerships, in the context of blended learning, can be viewed as being either internal or external. An example of an internal partnership in the context of this study would be the learning and support unit within the institution where learning technologists can expose lectures to new tools and practices in blended learning. An external partnership may be with a technological company such as Microsoft, where software and tools may be designed specifically for an institution. This is something that the institution could focus on in the future if there is going to be ongoing attention on offering blended learning programmes.

The final dimension of Lim et al.'s (2019) framework is research and evaluation. Blended learning is an ongoing topic of interest in HEIs worldwide. Therefore, there will be ongoing research and there may be opportunities for personal development courses for staff that are currently lecturing in blended learning programmes in the institution. These courses can provide staff with a platform to share and discuss their experiences of blended learning delivery within their institution.

Table 2.2 below depicts the key concepts of this chapter, highlighting conceptual overlap/intersection, generative or tangential alignment, key constraints and questions for practice.

| **Key concepts** | **Conceptual overlap/intersection** | **Generative or tangential alignment** | **Key constraints** | **Questions for practice** |
|---|---|---|---|---|
| Blended learning | There is significant overlap between blended learning, learning models, student engagement and the learning environment/spaces that students use. | There is tangential alignment between blended learning, learning models, student engagement and the learning spaces/ | Cultural paradigm of the institute . Lack of discipline, organisational and time keeping | How might practitioners overcome the challenges of blended learning in a higher education setting? |

| | | | | |
|---|---|---|---|---|
| | Students can choose to learn individually or in groups during their time on their blended learning programme.<br>The level of student engagement may depend on the method of delivery of the lecture material (face to face or online) and the pace of delivery.<br>Students may willingly engage outside of lectures with their peers to further their learning and understanding of lecture material.<br>Students can use a variety of learning environments/spaces throughout the duration of the blended learning programme, depending on their learning needs. | environments that students choose to use. | skills. This can apply to both academic staff and students.<br>Access to technology or broadband.<br>Lack of an established blended learning policy.<br>Students may experience isolation especially during the off campus period where the only contact with their peers and lecturer may be during the synchronous lecture sessions.<br>Costs of offering blended | How can practitioners implement better lecture delivery strategies to provide the student with the best possible learning experience?<br>What elements in relation to blended learning should senior management consider prior to developing a blended learning policy?<br>Would a blended learning policy lead to better student engagement throughout the duration of the blended learning programme? |

| | | | | |
|---|---|---|---|---|
| | | | learning programmes which include, hardware, software and training. | |
| Learning models | Students may decide that they wish to learn independently when they are off campus, however while they are on campus they may wish to adopt a more constructivist, socio-constructivist or connectivism approach to their learning.<br><br>This is turn may have an impact on their level of engagement. For some students it is very hard to learn cognitively for long period of time where there is no opportunity for group collaboration or interaction.<br>The choice of learning environments/spaces | Students can choose to adopt particular learning theories, and decide on their level of engagement during their studies and this maybe dependent on the learning environment/space they decide to use. | Level of engagement and participation.<br>Socialisation- some students may shy away from social situations such as group meetings.<br>Level of prior knowledge- for some students if they are adopting a constructivist, socio-constructivist or connectivism approach to their learning, they may feel that they do | How might practitioners use the theories of constructivism, socio-constructivism and connectivism to enhance the learning experience of our students?<br><br>How can practitioners encourage deep learning throughout the duration of the blended learning programme? |

| | | | | |
|---|---|---|---|---|
| | may be dependent on the learning model that the student may wish to adopt. For example if the student wishes to learn in a group, in the instance of this institution, the student may use the group project room. | | not posses valuable prior knowledge to share with the group and thus feel inferior. | |
| Student engagement | Level of engagement and participation may be dependent on how they view their own learning and the learning spaces that the students wishes to use.<br>The approach that the students wishes to adopt towards their learning, either surface or deep, will have an impact on their level of engagement with the lecture material, academic staff and their peers. | Level of engagement may differ depending on whether the students is face to face or online. | Willingness to engage with peers and academic staff.<br>Time.<br>Available spaces.<br>Distractions or noise. | How can practitioners as practitioners encourage student participation and engagement both on and off the campus if we run a blended learning programme? |
| Learning environment/spaces | The student may choose their learning environment and how | There is alignment between the space that the student | Available spaces. | How can we as practitioners use learning formal |

| | | | | |
|---|---|---|---|---|
| | they prefer to learn may differ depending on the mode of programme delivery. For example, if the student is on campus, they can use the library, canteen, computer labs and lecture theatres. The student may choose to learn independently in the library, however in the canteen and in the computer labs the student may wish to learn collaboratively. | uses and how the student wishes to learn in that environment. | Distractions or noise. Very little opportunity for engagement with academic staff or peers. Issues with technology and delivery of material especially in an online setting. | and informal learning environments or spaces to enhance the learning experience of our students? |

**Table 2.2 Summary of key concepts**

## 2.9 Summary

In the past, the most important question that educators used to ask in relation to blended learning programmes was how to combine face-to-face and online media in a programme. Blended learning is transforming the field of higher education. However, even though the concept is popular and there are many articles published on blended learning, there is no common definition of blended learning. Although blended learning brings a multitude of advantages to an institution, there are challenges involved in adopting blended learning programmes. These challenges need to be addressed to ensure student engagement and satisfaction are not affected when students enrol in a blended learning programme within an institution. A number of models and theories of learning were discussed in this section. These models and theories highlight some of the important elements that need to be considered when offering blended learning programmes and to ensure positive student learning experiences. In

addition to these models and theories, the learning spaces that students interact with should be considered. Students need to feel included and engaged in their learning space.

Finally, it is imperative for senior management to be cognisant of the importance of having a blended learning policy in place to ensure blended learning programmes are delivered in a way that students are given the best possible learning experience. Therefore, a framework such as the one identified by Lim et al. (2019) could be beneficial to members of senior management who are contemplating devising a blended learning policy.

# Chapter 3: Research Methodology

## 3.1 Introduction

As mentioned in the previous chapter, the landscape of higher education is changing. There is now an emphasis on offering more blended learning programmes in HEIs in the Republic of Ireland, and therefore, as a practitioner, I am of the view that it is important for practitioners understand how students learn and engage while enrolled on blended learning programmes. These are two important factors that need to be considered when an institute is focusing on fostering a positive learning experiences for their students. To explore this area in greater detail, this chapter aims to provide a rationale for the methodological approach used in this study. I adopted a qualitative approach to the data collection, and conducted here sixteen participants took part in in-depth interviews. However, prior to undertaking the main study, I conducted a pilot study where three participants were interviewed to trial the topic areas that I planned on focusing on during the in-depth interviews. This chapter will also examine the sampling process used, along with the ethical issues that were taken into consideration as part of the research process. I then conducted a thematic analysis to identify themes from the data was collected. Finally, this chapter will address the limitations of the methodology that was used for this study.

## 3.2 Aim of this Research

By undertaking this research, I aim to investigate the connection between learning spaces and student learning experiences on a blended learning programme. In relation to this study, focusing on this connection is especially important as students take part in this specific blended learning programme to acquire the qualifications to further their careers in their industry. The research question and the sub-questions will explore some theories discussed in the literature review section.

### 3.2.1 Research Question

Following a thorough examination of the literature concerning learning, the concept of blended learning, and learning spaces, I formulated my main research question: What impact do learning spaces have on students' experiences within a residential/blended learning degree programme?

Following on from this research question, I devised some subsidiary questions to comprehensively investigate this question.

1. How do students perceive their learning experience in a formal blended learning environment?
2. How do students perceive their learning experience in an informal blended learning environment?
3. To what extent do learning theories such as social constructivism and connectivism have a bearing on how students learn in a residential blended learning programme?
4. To what extent does institutional policy on blended learning affect the acceptance of blended learning programmes within the Institute?

I began the research process by identifying the research paradigm that would be suitable for this study and then I chose the research methodology and the research method that would be the most suitable for this study.

## 3.3 An Interpretivist Paradigm

Chilisa & Kawulich (2012) believe that choosing a specific paradigm implies the researcher should link their paradigm to a specific methodology. Before choosing a specific paradigm and methodology, I had to consider how I viewed reality. According to Jackson (2013), the researcher's view of reality can impact the researcher's methodology. I believe that our world is complex and constantly changing. I examined the interpretivism paradigm and identified that reality is constructed socially. I also believe that how people interpret their world is based on how people interact with one another and society. Therefore, researchers using an interpretivism paradigm know people experience reality differently and that their experiences are subjective. Thanh and Thanh (2015) are of the view that an interpretivist approach should be adopted when conducting research if the research aims to gain an understanding of the world by understanding how others interpret that world. In this study, the aim was to investigate the connection between learning spaces and learning experiences while attending a blended learning programme. As sixteen students were chosen to take part in this study, I expected that there would be a multiple of very different experiences that students would share with me, which would lead me to develop a deeper understanding of how student use and perceive their learning spaces. Kivunja and Kuyini (2017) believe that when a researcher utilises this paradigm in their research, they aim to comprehend the participant's world subjectively.

Therefore, I cannot just base my knowledge on what I observe; I must consider the subjective views of my participants. For this research study, I interacted with participants from one HEI and within that HEI I focused on one programme of undergraduate study that comprised three cohorts of students. Chowdhury (2014) commented that the use of an interpretivist approach enables the researcher to gain an understating of why people act and behave in a certain fashion. In the case of this study, as a researcher, I wished to gain an understanding of why students chosen particular learning spaces and what the motives were behind those choices. Therefore, to understand how the students on this programme comprehend their world around their blended learning programme, I adopted a qualitative approach to the study.

## 3.4 Qualitative Research Approach to the Study

A researcher can choose between quantitative, qualitative, or mixed methods approach. However, according to Lichtman (2014), before choosing a suitable methodology, researchers need to have a clear view of their role as a researcher so that their research has credibility. As mentioned in the previous section, I chose an interpretivism paradigm; the chosen methodology should enable me to comprehend the experiences that participants have had concerning learning spaces and their student learning experiences while enrolled in their undergraduate programme. Indeed, Thanh and Thanh (2015) are of the view that researchers that adopt an interpretivism approach have a tendency not to use quantitative methods. According to Ritchie et al. (2013), a qualitative approach enables the researcher to comprehend the world and the experiences of the participants taking part in the study. Therefore, qualitative approach was chosen to gain a deeper insight into the respondents' thoughts, beliefs, and attitudes. This is further supported by Merriam and Tisdell (2015) and Fenwick (2015), who argued that researchers who adopt a qualitative approach aim to interpret how respondents make sense of their world. This is important for this study, as I aimed to understand how students on a specific blended learning programme experience learning spaces and what impact these learning spaces have on their experiences whilst enrolled on their blended learning programme.

### 3.4.1 Interview Schedule

Table 3.1 below shows the original list of questions.

| **Original interview schedule** |
|---|
| • Why did you enrol in a blended learning programme?<br>• Have you previously taken an online blended learning programme?<br>• What elements of the programme format did you like?<br>• What elements of the programme format did you dislike?<br>• Could you compare your blended learning experience to your previous face-to-face experience?<br>• What learning spaces do you currently use in your programme?<br>• How do you go about learning while you are on your current programme (individual versus collaborative learning)<br>• How do you feel about using those learning spaces?<br>• Do you feel engaged in your blended learning programme? If yes, in what way? If not, why not? |

**Table 3.1 Interview schedule**

However it is necessary to briefly discuss how the models and frameworks from the literature review influenced the design of the interview schedule above. As mentioned in the literature review chapter a number of models and frameworks were discussed in relation to blended learning, learning and learning spaces. Table 3.2 below depicts the links between the models and frameworks used and the questions that were asked in the pilot interviews.

| | |
|---|---|
| • Why did you enrol in a blended learning programme?<br>• Have you previously taken an online blended learning programme? | Framework for the strategic planning of HEIs for blended learning (Lim et al, 2019). A particular element of this framework- the structured approach to delivering blended learning programmes influenced these particular questions. |

| | |
|---|---|
| • What elements of the programme format did you like?<br>• What elements of the programme format did you dislike? | • Khan's Octagonal Framework (Nsofar et al, 2014).<br>• TIPS model of blended learning (Lam, 2014)<br>• Pedagogy, Space and Technology Framework (Radcliff et al, 2008)<br>• The pedagogy elements of these models and frameworks influenced this question. |
| • Could you compare your blended learning experience to your previous face-to-face experience? | • Khan's Octagonal Framework (Nsofar et al, 2014).<br>• TIPS model of blended learning (Lam, 2014)<br>• Pedagogy, Space and Technology Framework (Radcliff et al, 2008)<br><br>The pedagogy elements of these models and frameworks influenced this question. |
| • What learning spaces do you currently use in your programme?<br>• How do you feel about using those learning spaces? | Pedagogy, Space and Technology Framework (Radcliff et al, 2008) The space element of this framework prompted these questions. |
| • How do you go about learning while you are on your current programme (individual versus collaborative learning) | Blended learning theory (Carmen, 2002). This model promoted questions around cognitivism and constructivist approaches to learning.<br><br>TIPS model of blended learning (Lam, 2014). The social perspective element of this model influenced this question. |

| | |
|---|---|
| Do you feel engaged in your blended learning programme? If yes, in what way? If not, why not? | Framework for the strategic planning of HEIs for blended learning (Lim et al, 2019). Within this framework elements such as the curriculum, the structure approaches to the delivery of the blended learning programme and the promotion of personal development for academic teaching staff influenced this question.<br>TIPS model of blended learning (Lam, 2014). The pedagogical perspective of this model prompted this question. |

**Table 3.2 Links between the models and frameworks**

### 3.4.1 Limitations of the interpretivist paradigm, qualitative approach, and the use of interviews.

There are a number of limitation that researchers need to be cognisant of when utilising an interpretivist paradigm. Scotland (2012) stated that the use of an interpretivist paradigm could resulted in limited generalisation of the data that has been collected. In addition, there may be incidents where the participants in the study may reveal intimate data which may comprise their privacy if a study is published at a future date. Knot and Burkard (2014) are of the view that qualitative research can result in more of a focus on the participants themselves rather than the context of the research topic. A further critique of qualitative data by Knot and Burkard determined that researchers may experience difficulties in interpreting and analysing the data that they have collected. Furthermore, Roulston and Choi (2018) have highlighted that conducting interviews can be time consuming and a costly exercise. The researcher also has to spend considerable time ensuring that there is no bias involved in selecting participants for the study.

## 3.5 Research Design

Before collecting the data for this study, I undertook a process to choose participants from one higher education institute enrolled in a specific blended learning residential programme.

### 3.5.1 Participants

I chose participants from one specific HEI in the Republic of Ireland. As mentioned in the previous section, I sought to understand how students on a blended learning programme experience learning spaces and what impact these learning spaces have on their educational experience. Therefore, the participants chosen for this study needed to be enrolled in a specific blended learning programme where students would have a mixture of residential face-to-face lecture sessions and online synchronous sessions through the institute's VLE platform. I chose sixteen participants, three of which would be used in the pilot test to ensure that the questions in the interview schedule were worded clearly and that the questions posed to the respondents would address the research questions for this study. This will be addressed in more detail in the next section. To ensure the trustworthiness of the data collected, I only chose participants whom I had not lectured in the past or will not lecture to in the future. This ensures that the participants do not feel compelled to take part in the study or provide specific types of information. While I had ensured to the best of my ability that participants that were chosen would not be influenced by my presence in the interview to provide certain answers to questions posed, I had to address insider research, which may have a bearing on this study. I will discuss this further later in this in this chapter.

| Participant | Age | Previous third level experience | Employment sector | Stage of career | Location |
|---|---|---|---|---|---|
| Alina | 23-30 years | Yes | Service based | Early | Munster |
| Pio | 23-30 years | No | Service based | Early | Munster |
| Kisheen | 31-40 years | No | Service based | Mid-career | Connaught |
| Rian | 23-30 years | No | Service based | Early | Leinster |
| Celina | 23-30 years | No | Service based | Early | Munster |
| Frederick | 31-40 years | Yes | Service based | Early | Munster |

| | | | | | |
|---|---|---|---|---|---|
| Roderick | 31-40 years | No | Service based | Mid-career | Munster |
| Fionn | 23-30 years | No | Service based | Mid-career | Connaught |
| Ruby | 23-30 years | No | Service based | Mid-career | Leinster |
| Ria | 23-30 years | No | Service based | Early | Leinster |
| Marcella | 23-30 years | No | Service based | Early | Leinster |
| Stan | 31-40 years | No | Service based | Mid-career | Connaught |
| Pia | 31-40 years | No | Service based | Mid-career | Munster |
| Finn | 23-30 years | No | Service based | Mid-career | Leinster |
| Tammy | 23-30 years | No | Service based | Early | Connaught |
| Daire | 41-50 years | Yes | Service based | Mid-career | Munster |

**Table 3.3 Descriptor of participants**

As mentioned in Chapter 1, participants from one specific programme were selected. As Table 3.3 shows, participants vary in age, previous third level experience, stage of career and location across Ireland. I decided that for this study; it was important that I interviewed students on a face-to-face basis in an environment that these students were familiar with. I took this decision as I wanted students to be as comfortable as possible during the interview process. This will be discussed in more detail later in this chapter.

### 3.5.2 Sampling Technique

Waller (2016) believes that purposive sampling is suited to a qualitative study. Thus, with the inclusive criteria identified in the previous section, I chose purposive sampling, as it is best suited for this qualitative study. This sampling method enabled me to use my judgement to ensure that the right participants were chosen who had a particular body of knowledge that would enable them to respond to the questions. However, Cohen, Manion and Morrison (2011) have identified that purposive sampling may provide a researcher with a cohort of participants whose responses I cannot generalise to blended learning students outside of the Institute chosen for this study. However, I used this type of sampling technique to seek a body of knowledge around my research questions from the participants; this knowledge could enhance the current delivery of the programme in the Institute.

To target possible participants, I met with each of the three cohorts of students on campus at the start of their semester. I explained my research topic to the students and what

would be required from those willing to participate in the study. I assured students that their anonymity would be protected, and I would use pseudonyms for the audio recordings and the transcriptions. If students were interested in participating in the study, I requested they email me their personal details. Once an email was received from a student expressing their interest in the study, I asked the student if they would be comfortable with a short phone call. This was to ensure that students who will participate in the study were aware of the time commitment involved thus, giving me a chance to gauge their level of commitment. I recruited both male and female participants to ensure that both genders were represented in the study. The age profile of participants ranged from early twenties to late fifties.

Careful consideration was given to the sample size that was used for this study. A sizeable number of students enrolled in this blended learning programme. It would not be possible to interview all students on the programme due to time constraints. Therefore, to choose a representative sample, I had to consider the time frame to gather the primary data. For this study, the collection period for data was approximately six months.

As participants are based all over the island of Ireland and have busy work schedules, it was more practical to interview participants while they were on campus for their residential block. I undertook in-depth face-to-face interviews with the participants to gauge non-verbal communication and encourage them to elaborate on some of their responses to the questions posed. Initially, the researcher was hoping to interview twelve participants, however, sixteen participants participated in this study, including three participants for the piloting phase. Before the interview, I emailed the authorisation letter, participation information sheet and participant consent form to the participants, and these forms can be viewed in Appendix A, B and C. Participants were asked to read the consent form before the interview occurred. On the day of the interview, the participants signed the consent forms; I asked each student to read over the form, and if the participant was satisfied with the content in the consent form, they were asked to sign the form. Notably, all interviews were undertaken prior to COVID-19.

## 3.6 Piloting

A small pilot study was conducted at the start of the data collection phase of this study. This was to ensure that the questions in the interview schedule were worded clearly and that the questions posed to the respondents would address the research questions for this study. In addition, conducting a piloting phase allowed me to acquire experience conducting one-on-one

semi-structured in-depth interviews. Lune and Berg (2016) and Majid et al. (2017) stated that researchers new to interviewing could not gain expertise in interviewing from a textbook and that piloting will enable the researcher to provide the participant with a chance to talk and to be comfortable with silences or pauses during the interview. I believed that the piloting phase would provide a platform for testing the questions that would be posed to participants and hone my interviewing skills. This piloting phase also allowed me to build rapport with participants both before and during the interview. I contacted each participant the day before the interview to ensure that the day and time suited them and asked them if they had any concerns about the forthcoming interview.

Three participants were invited to partake in the pilot study. Sixteen participants had agreed to take part in the study. I chose the first three participants on my list to partake in the pilot phase. The participants were contacted, and I explained I would conduct a pilot study before undertaking further data collection for my study. I then invited the three participants to take part, and they agreed to participate in the pilot phase. All three participants had the same inclusion criteria as outlined earlier in the participants' section of this chapter. Participants were given an information sheet and were requested their consent before participating in the piloting phase. The pilot interviews were semi-structured, and each interview session lasted between thirty-five and forty minutes. After the piloting phase of the study, I made some modifications to the interview schedule. I added an additional two questions to the interview schedule, which can be seen in Table 4 on the following page. The additional questions are highlighted in blue. These additional questions focused on learning and learning in different learning spaces that students encountered during their programme.

| **Revised interview schedule** |
| --- |
| • Why did you enrol in a blended learning programme?<br>• Have you previously taken an online blended learning programme?<br>• What elements of the programme format did you like?<br>• What elements of the programme format did you dislike?<br>• Could you compare your blended learning experience to your previous face-to-face experience?<br>• What learning spaces do you currently use in your programme? |

| |
|---|
| • How do you go about learning while you are on your current programme (individual versus collaborative learning)<br>• How do you feel about using those learning spaces?<br>• Are there certain learning spaces that you feel more comfortable with?<br>• Do you feel engaged in your blended learning programme? If yes, in what way? If not, why not?<br>• If you feel that you are not engaged with the programme, is there anything that can be done in the future to improve that level of engagement? |

**Table 3.4 Reviewed Interview Schedule**

I included the data from the pilot study in the findings section of the chapter as the participants provided valuable data that would enable me to address some of my research questions.

## 3.7 Researcher's Positionality

The issue of positionality is an important element of any study, as it may have an overall bearing on the study's overall results. Holmes (2020) and Greene (2014) posited that positionality refers to how a researcher aligns themselves with the participants in the study. West, Stewart, Foster and Usher (2013) stated that the researcher always has a position and that may change as relationships change over the course of the research. As a practitioner, who has worked for nearly two decades in higher education and I have taught many undergraduate and postgraduate students. However, even though I have accumulated a certain level of expertise, I like to reflect regularly on certain aspects of my profession, such as the delivery of my lecture content and where and how the student engages with that content. I recognise students experience issues with learning and engaging with lecture material. These were issues I had in mind to explore in more detail when undertaking this study at the institute where I work. Undertaking research in my workplace, to a certain extent, could be viewed as insider research. Unluer (2012), believed that if a researcher share membership with a group that they are using for their study, this will deem the researcher to be an insider in terms of their research. However, I have never tutored the students who participated in the study, and I will not have a

teaching interaction with the participants in the future. Therefore, I can viewed as detached from the group that I used for the interviews.

There are several advantages to researching in my own institutional setting. First, I have accrued knowledge over the nine years that I have worked in the institution. I am familiar with the institution's culture and whom to contact to gain access to the participants, which may not be easily available to outsider researchers. Second, there is the possibility of interacting easily with participants as I am familiar with the structure of the programme, I taught several modules on the programme. I could easily refer to all of these during the interview with the participant. This is important, as Chavez (2008) commented that this familiarity may put the participant at ease, and again, this would not be easily available to an outsider. I was also a student in the Institute for one year in 1999 on a full-time programme. I had an experience of the learning environment, however; it was as a full-time student where learning was face-to-face only. While I do not have the lived reality of the students on the blended learning programme used for this study, I am familiar with the teaching culture within the institute. However, Brannick and Coghlan (2007) believed that researchers should not undertake qualitative research in the organisation where he or she is employed. There is also an ongoing debate whether a researcher should have insider knowledge of the research setting. The debate centres around insider research questions, if researchers can really remove themselves from the group they are using for the research. However, it should be noted that insider research is not uncommon in education. In a more recent article by Greene (2014), research in education and especially in professional programmes such as doctorates in education are often associated with practitioner research. Therefore, for this type of research, there will be occurrences of insider research.

Insider research has some limitations. For example, Anderson and Herr (1999) and Alversson (2003) have highlighted that insider research can be viewed as problematic, as the researcher may have a personal interest in the organisation and may be viewed as being too close to the research undertaken. In addition, Brannick and Coghlan (2007) identified some challenges for insider research. The issues in the proceeding paragraphs are the challenges I have encountered in this study.

The first is the issue of access; insider researchers have little issue in acquiring primary access to the organisation. However, the issue may be secondary access where it is necessary to get to the root of an issue in an organisation. This is evidenced by Greene (2014), who stated

that there is an assumption that being an insider in an organisation means the researcher has uncomplicated access. While being an insider may result in faster access to participants, the researcher may have to go through a far more rigorous process than an outsider to conduct their research in their setting. For example, in this research, my institute has requested that I have a gatekeeper to ensure that both the institute and the students are protected if elements of the thesis are published at a later stage.

Second, an insider researcher must consider the issue of role duality, where a researcher is both a member of the institution and a researcher in that same institute. The researcher may encounter conflict when trying to undertake both the role of employee and researcher in their organisation; thus, the research could be viewed as too subjective. Insider research is believed to provide a limited view of the organisation because of the researcher's familiarity with the social and cultural norms of that institute. Furthermore, Brannick and Coghlan (2007) highlighted that the researcher might get too close to the data during the data collection and analysis stages. Therefore, I felt it was important to recognise my role and relationship (if any) with the participants in the institute where the study was conducted. I ensured that I was honest with the participants in their Participant letter and at the beginning of the interviews.

Finally, there is an issue of confidentiality; Unluer (2012) identified this as an area of concern when collecting data from one's own institute. Although the interviews I had with the participants in this study did not include sensitive data, I stated at the beginning of each interview that participants should not mention specific lecturer's names or modules. As I work with some of these lecturers across some programmes, I did not want confidential information about situations or issues that students encountered during their programme that may affect my professional relationship with colleagues in the future.

## 3.8 Method of Data Collection

As mentioned earlier in this chapter, I chose the interpretivism paradigm and a qualitative methodology to understand the participants' experiences concerning learning spaces and their student learning experiences while enrolled in their undergraduate blended learning programme. While several methods could be used for qualitative research, I believe that in-depth interviews would help me develop a rapport with participants, enabling me to gather richer data. Researchers such as Symon and Cassell (2012), Ritchie (2014) and Merriam and Tisdell (2015) have posited that the use of in-depth interviews can be beneficial to the

researcher as this data collection method enables the researcher to acquire a deeper understanding of participants' views, experiences, opinions and motivations.

I conducted screening interviews over the telephone, as participants had willingly provided me with their mobile phone details prior to undertaking in-depth interviews. Using face-to-face in-depth interviews afforded me with an opportunity to observe non-verbal signals during the interviews. I wanted to observe if respondents would have been uncomfortable or were confused about answering certain questions. For example, during the face-to-face in-depth interviews, when I used the phrase learning environment or learning space, I observed some participants had difficulty with this term. Throughout the interview process, I took detailed notes of the participants' responses to each question. While each interview was audio-recorded, I felt it was also necessary to observe the non-verbal communication of each of the participants as nonverbal cues can strengthen what a participant is saying. For example, if a participant stated in their response that they were frustrated with a particular aspect of their blended learning programme, I would seek facial cues to see if these reinforce what the respondent is saying.

Face-to-face in-depth interviews enabled me to observe my participants in their natural setting, their main classroom on campus. Karnieli- Miller et al. (2009) commented that when the interviewer collects personal data, the interviewer may use a welcoming space so that the participant feels comfortable sharing their first-hand experiences. As the researcher, I had to contemplate the interview space. As the students only had one hour for lunch and I had to choose a space that was easy to locate and convenient for the student. Therefore, the interviews were conducted in empty classrooms that students would normally use for their lectures. The idea was to use a setting where the participants would feel comfortable to provide me with a deep insight into their learning experiences whilst on their programme. Another reason for using the classroom and not my office was to neutralise my power and that participants would not be threatened by my role in the institute. My experience throughout all sixteen interviews was the participants were comfortable in the setting and were more than willing to answer the question posed.

I used a semi-structured approach to the interview, as I had several topics that needed exploring. As mentioned earlier in Table 3.1, I devised an interview schedule that I could refer to during the interview. However, I opted to use a semi-structured approach as I wanted my participants to contribute to my research rather than just a rigid question-and-answer

process. This process also allowed me to ask follow-up questions to the initial question that I posed to the participant, which enabled me to probe deeper into their responses to obtain richer data. Creswell (2014) believes that open-ended questions enabled the participant to articulate their own opinions and attitudes towards their learning on their blended learning programme. Therefore, I used open-ended questions as I did not wish to constrict the participants' responses to the questions posed and to examine the many responses participants could give to each question.

Chilisa and Kawulich (2012) stated that it is important that a researcher acquire trust and develop a rapport with the participant from an early stage, to be comfortable providing confidential or sensitive information to the researcher. Therefore, at the beginning of the interview, I again explained the rationale for undertaking this research. I also informed each participant that they were free to not answer a question if they were not comfortable with the question being asked and that they were free to leave at any time during the interview session. I also explained that their participation in the study would be completely anonymous and that at no stage would their responses in the findings stage of the thesis be identifiable to anyone else in the institute. I ensured each participant was provided with a pseudonym to ensure their anonymity. Finally, I took time to ask students how they were getting on with their programme before examining the questions on my interview schedule.

## 3.9 Data Analysis

I used thematic analysis to analyse the data collected for this study. The process of thematic analysis is often used to identify, analyse, and recognise themes in the data. Braun and Clarke (2006) support this view, defining thematic analysis as “a method of identifying, analysing and reporting patterns or themes within the data”. Furthermore, Nowell, Norris, White and Moules(2017) have stated that utilising a thematic analysis approach to analysing the data allows researchers to become familiar with coding and analysing the data they have collected in a coherent and detailed manner.

Braun and Clarke (2006) identified steps that a researcher should proceed through when undertaking thematic analysis to ensure trustworthiness, as depicted in Table 3.5 below.

| **Phase** | **Examples of procedure for each step** |
|---|---|
| Familiarising oneself with the data | Transcribing data, reading and re-reading: noting down initial codes. |
| Generating initial codes | Coding interesting features of the data in a systematic fashion across the data-set, collating data relevant to each code. |
| Searching for the themes | Collating codes into potential themes, gathering all data relevant to each potential theme. |
| Involved reviewing the themes | Checking if the themes work in relation to the coded extracts and the entire data-set; generate a thematic "map". |
| Defining and naming themes | Ongoing analysis to refine the specifics of each theme; generation of clear names for each theme. |
| Producing the report | Final opportunity for analysis selecting appropriate extracts: discussion of the analysis; relate back to research question or literature; produce report. |

**Table 3.5 Phases of thematic analysis (adopted from Braun and Clarke, 2006)**

In order to formulate themes from the data set, I followed each step of the phrases of Braun and Clarke's thematic analysis. The first step involved me acquainting myself with the data that was collected. The second stage of the thematic analysis process is the generation of initial codes. Before coding the data, I had to decide to either code manually or use a computer package. Creswell (2014) believes that researchers prefer to code their data manually to be close to the data. The sample for this study was small; this gave me time to sort through the data manually and identify codes in each of the transcripts. When I was taking notes during the face-to-face interviews, I identified possible codes. Saldana (2015) believes that this process of initial coding can be viewed as the starting point for coding.

Linneberg and Korsgaard (2019) believe that researchers who use thematic analysis use both inductive and deductive coding, or a blended approach to coding. I started examining the transcript on a line-by-line basis, searching for codes. Each of the transcripts had codes written on them. I felt that at this stage; it was necessary to listen again to the participant's interview after reading the transcript before creating an MS Excel spreadsheet to input my initial codes. I felt that this was the best way to become more familiar with the data that I had collected. This process also gave me a space to reflect on the recordings and what I read in the transcript. I identified ninety codes in the coding process, and these codes were inputted into the MS Excel Spreadsheet.

For example, I took the quote in Table 3.6 and undertook the initial coding process, which can be seen in the table below

| **Code** | **Definition of the code** | **Example from the transcript** |
|---|---|---|
| difficulty in engagement | some respondents found it difficult to engage with the content, their lecturers, and the programme at large | *"When I am off campus, then I feel less engaged. I feel it is a chore to do the online session; maybe it is the online modules or the fact that I am off campus, and technically, I feel I am not in college, so therefore I do not have to engage. I tend to do worse in the online modules, and I put that down to me being not being engaged with the material."* (Daire) |

**Table 3.6. Coding Process**

The third stage of undertaking a thematic analysis was to identify themes. Nowell et al. (2017) stated that a theme is identified by its importance in relation to the research topic. For this process, I used a mixture of deductive and inductive analysis. As I was conducting the interviews, I noted potential themes. However, I also identified themes inductively by examining the MS Excel spreadsheet where I had identified the codes from the data collected for this study. Table 3.7 on the next page, identifies the original themes that I identified from the data that was collected in this study.

| **Original themes** |
|---|
| Engagement |
| Reasons for engagement |
| Programme Delivery |
| Challenges with being a student on a blended learning programme |
| Learning |
| Learning spaces |
| Feelings about learning spaces |

**Table 3.7 Original themes**

The penultimate stage of the process focused on reviewing the themes. Braun and Clarke (2006) believed that once a researcher has identified themes, the themes are then subject to review and refinement. Initially, I identified seven themes, as set out in Table 7 which was the third phase of the Braun and Clarke (2006) thematic process. Then, having reflected on each of the previously identified themes and re-reading the transcripts, I deemed that some themes could be viewed as sub-themes under a major theme.

Table 3.8 below depicts the final number of themes that are further discussed in the next chapter of this dissertation.

| **Re-worked themes** |
|---|
| Engagement (includes reasons for engagement) |
| Programme Delivery (includes challenges with being a student on a blended learning programme |
| Learning |
| Learning spaces (includes feelings about learning spaces |

**Table 3.8: Reworked themes**

Table 3.9 below identifies the theme of engagement and one of the codes linked to engagement. The code is further broken down into sub-codes with examples from the transcripts from the interviews that I conducted as part of data collection.

| Theme | Code | Sub Code | Definition of the code | Example from Transcript |
|---|---|---|---|---|
| Engagement | Engagement | Difficulty in Overall Engagement | Some respondents are finding it difficult to engage with the content, their lecturers and the program at large especially when not in campus. | *"When I am off campus, then I feel less engaged. I feel it is a chore to have to do the online session. Maybe it is the online modules or the fact that I am off campus. I feel I am not in college, so I do not have to engage. I see that I tend to do worse in the online modules and I am putting that down to me being not engaged with the material".* (Daire)<br>*"It is sometimes not easy to answer the questions. It is not easy to ask the questions because you have to type it in".* (Ria) |
| | | Engagement During online Sessions | This code is about how the engagement is between the students and the lecturer and the content and even amongst the students themselves | *"I personally did not find it hard to engage online. I was kind of looking forward to it as well."* (Finn)<br>*"Asking questions to stay engaged for the online classes is absolutely necessary".* (Roderick) |

| | | | | |
|---|---|---|---|---|
| | | | during class in an online setting. | |
| | | Engagement with Classmates | How classmates interact with one another in the program. | *Sometimes people participate sometimes they don't…"* (Ria)<br>*"We seem to be very cohesive when are on campus during the four-week block…"* (Daire) |
| | | Engagement with Lecturer | In this code is the level in which students engage with their lecturers. | *"I definitely find it easier to engage with the lecturer during the block sessions on campus".* (Daire)<br>*"there are subjects that I have this semester that I would have hated in school previously, I would have avoided them at all costs. But when I knew it was him teaching the module, I was like right he's going to drill it into me that he's not going to let me leave the classroom without me not knowing what I need to know.* (Frederick) |
| | | Engagement with Material | The degree to which students interact and engage with the content. | *"When I am off campus, then I feel less engaged. I feel it is a chore to have to do the online session. Maybe it is the online modules or the fact that I am off campus. I feel I am not in college, so I do not have to engage. I see* |

| | | | | |
|---|---|---|---|---|
| | | | | *that I tend to do worse in the online modules and I am putting that down to me being not engaged with the material".* (Daire) |
| | | Mandatory Engagement | Engagement to be made compulsory among students during online class sessions. | *"If it were made to be compulsory that you attend the online session and that you make a contribution so that people would be more engaged. Maybe give students credit for attending or maybe percentage of a module be set aside for attendance".* (Alina) |
| | | Lack of Engagement | Lack of engagement on the part of students when it comes to the content. | *"For some people this particular module, and this part of the course is something they're not really interested in. You can detect that from some of the comments or maybe the lack of attendance at face to face lectures".* (Tammy)<br>"*I think that when the lecturer and the students do not use the camera function on the VLE, for me it can make it hard to engage with my fellow students and the lecturer. I found that this was particularly the case in the first year of the programme* |

| | | | | |
|---|---|---|---|---|
| | | | | *as I did not really know people on the programme. I definitely find it easier to engage with the lecturer during the block sessions on campus".* (Pio) |
| | | Fear of Engagement | In this code respondents have a fear of engaging in class sessions for fear of being judged. | *"In terms of expressing opinion, I think I would shy away from saying anything that would or may appear to offend someone. I don't want anyone attacking me on an online forum. It hasn't happened to anyone in the class to date. I don't think that we have had heated debates but that may be down to the fact that the lecturer is doing most of the talking and there isn't much of an opportunity for debating issues discussed in lectures". (Daire)* |

**Table 3.9 Theme of engagement and the codes related to engagement**

## 3.10 Trustworthiness

Creswell (2014) believes that the accuracy of research findings is crucial to a qualitative study. Therefore, to ensure as high a level of accuracy as possible, I focused on the trustworthiness of the data. To do this, strategies around establishing credibility, dependability, transferability and conformability were devised and implemented. In this study, I wanted to adopt as many measures as possible to reduce any threat to the credibility of the data. Cohen et al. (2011) believe that triangulation allows the researcher to explore the data from more than one perspective. Although triangulation would have been beneficial in this study, I did not have the luxury of time to undertake a mixed-method approach to data collection. Nevertheless, I used alternative triangulation strategies such as member checks, adequate engagement in the data collection process and the researcher's position, which was discussed earlier in this

section. I conducted member checks with all the respondents who participated in the study. Once I had transcribed each interview, I sent the interview transcript to the participants via email. I asked the participants to read over the transcript to ensure that I had transcribed their responses accurately. However, only two participants responded to the email and stated that they were happy with the transcript I had provided them. I undertook engagement in the data collection process; I interviewed the respondents comprehensively until I reached saturation point. I read and listened to each interview and took notes to note variations and similarities in the answers posed. While it is important to identify variations in answers to questions, Thomas and Magilvy (2011) have highlighted that a study can be seen as being credible if several participants share similar experiences. As I read through the transcripts, I searched for similarity in terms of student responses to particular questions. The final strategy addresses the positionality of the researcher. As discussed previously, I was conscious of my positionality as a researcher in this study. Therefore, when I initiated contact with each participant, I informed each participant of my position with the institute.

For this study, I aimed to improve the dependability of the data that was collected and analysed. As mentioned previously, I provided a detailed description of the participants' used and how they were selected. The method used to collect the data can also be useful if other researchers wish to research the same topic. I discussed my choice of participants, the selection process, and data collection with colleagues who have been through the doctoral process. Since I was undertaking qualitative research for the first time, I felt that this was an effective way to gain an insight into how they viewed the method used to collect data in this study and the approach taken to analyse the data.

At the stage of confirmability, Morse (2015) believed that the researcher must be reflective and self-critical. During the data collection process, I found it useful to take notes during and after each interview, including observation notes. Even though I recorded the interview, note-taking enabled me to reflect on the answers given by the participant before asking the next question. I also recorded my initial thoughts after the interview, especially in relation to my research questions. This enabled me to reflect on the participants' answers and cross-reference with previous interviews. I also discussed the findings of the study with some colleagues who had taught on blended learning programmes both in my current institute and in another institute to ensure that I had an accurate interpretation of the data collected. This process helped to develop the trustworthiness of the data collected for this study.

## 3.11 Ethics

Before collecting data from the participants, I sought ethics approval from my institution and the University of Liverpool. For this research, some specific issues need close attention. First, there is gaining access to participants for the study. Informed consent was obtained from all participants before interviews commenced. I provided potential participants in the study with information in relation to the study and the organisation where I was affiliated for my doctoral programme. As mentioned previously, the participants were also informed that their participation was voluntary, and the participant was free to leave the study at any time they wished. From a researcher's perspective, Cohen et al. (2011) have identified the advantage of acquiring informed consent from the participant as it enables the researcher to build a relationship with the participant, which may help with building trust during the interview. As mentioned earlier, I undertook the interviews in the classroom so that students would feel comfortable in a familiar environment. At the start of the interview process, I informed participants that their interview would be recorded, but it would be anonymous and that pseudonyms would be used and that participants would not be identifiable in the research transcripts.

A second issue that I had to consider was the lack of clear boundaries between the participant and the researcher. While I needed to can build a relationship with my participant, this posed a challenge. I had to be careful of creating boundaries so that I did not become a counsellor to the participant. Ritchie, Lewis, Nicholls and Ormston (2013) believed that the participant might go into extreme detail about their personal experience during the interview, which may lead to them being easily identifiable in the transcripts later. This may pose an issue as participants may regret the amount of in-depth information they disclosed during the interview later.

With this research, I established clear protocols for conducting the interview and the flow of the interview so that the participant clearly understood the process. I also requested that participants did not name modules or identify lecturers during the interview. Throughout the sixteen interviews, I ensured boundaries were not crossed. Participants did not divulge sensitive or personal data that would require a counsellor role at any stage during the interview process. Connected to clear boundaries is the subject of the balance of power relationship between the researcher and the participant. Karnieli- Miller et al. (2009) wrote that “concepts and

relationships in qualitative research are not fully defined, and there is no correct or optimal relationship". However, I knew that particular factors could affect the researcher-participant relationship such as the nature of the research topic, the institute where the research was undertaken, and why participants are partaking in the research. These factors may impact the responses that were provided in this study.

A third issue identified by Cohen et al. (2011) and Ritchie et al. (2013) is that the researcher would interview participants who may have their own agenda that they want to focus on rather than answering questions related to the research topic. For example, the participant may see the research as an opportunity to gain in-depth or insider knowledge from the researcher in relation to a particular topic. The participant may then use this knowledge later to further their own cause. Throughout the interview, I ensured that the focus was on my schedule of questions. If I felt that the interview was steering away from this, I gently redirected the participant back to the question that was asked. However, it should be noted that there was a little incidence of this throughout the sixteen interviews and the participants focused on the questions that they were asked.

## 3.12 Alignment of data with research question

After analysing the data and identifying the codes and the themes, as a researcher I then examined how the themes aligned with the research question that I had identified in the beginning of this chapter. When I devised the questions, I had to consider carefully how students perceived both their formal and informal learnings spaces in relation to their learning style and their level of engagement. For example, some students may feel more engaged when they were given the opportunity to work together in a physical room such as a lecture room rather than individually in a virtual learning environment. From the literature review, it is evident that the learning approach had an impact on the level of engagement that a student experienced while enrolled on the programme used in this course, for example some students were more engaged if they were learning cognitively rather than being forced to work in a group to learn in a socio-constructivist way. As a practitioner for nearly two decades and from working in a number of HEIs, I am very aware of the impact of policies when an institute is trying to introduce a new concept or method in relation to the delivery of programmes. Hence, it was necessary to address the issue of policy implementation and whether this was evident in the data that was collected in this study. From the literature review, it is evident that when implementing policies in relation to blended learning some of the key elements that

practitioners need to focus on are: the delivery of the programme material, how students learn while on the programme and their level of engagement.

Table 3.10 below portrays links between the research question, the themes that were identified from the data and some evidence from the transcripts.

| **Research Question** | **Theme** | **Example of evidence from transcript** |
|---|---|---|
| 1. How do students perceive their learning experience in a formal blended learning environment? | **Engagement**<br><br>**Learning spaces** | *"I feel that because it is face-to-face and that you cannot really hide, our class is relatively small, so you have to engage in the class discussion, the group work activities in class and of course the group assignments".* (Daire)<br><br>"*I think that when the lecturer and the students do not use the camera function on the VLE, for me it can make it hard to engage with my fellow students and the lecturer. I found that this was particularly the case in the first year of the programme as I did not really know people on the programme. I definitely find it easier to engage with the lecturer during the block sessions on campus". (Pio)* |
| 2. How do students perceive their learning experience in an informal blended learning environment? | Learning Spaces<br><br>Learning and engagement | *"I find that it is good for role play. It is great writing down a few ideas and to put together whatever the team members need to do for the role play. It seems to work very well. It is also a good place to work on an assignment and there can be three or four of us working away on an assignment that needs to be in for the next class".* (Finn)<br><br>*"I use the library for writing reports, for anything where I have to take in information, so* |

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| | | *anything that is theory laden. I like to try to get my own space and just to focus. But anything kind of practical, I prefer the group project room for that kind of scenario because I sometimes work and I learn better when I am teaching other people".* (Pio) |
| 3. To what extent do learning theories such as social constructivism and connectivism have a bearing on how students learn in a residential blended learning programme? | Learning<br><br>Engagement | *"the person you would have to partner up with would not have to have the same level of interest as I would. They tend to be on their phone or just let you do the work. So sometimes, I prefer being on my own for that reason".* (Celina)<br><br>*"I think that when the lecturer and the students do not use the camera function on the VLE, for me it can make it hard to engage with my fellow students and the lecturer. I found that this was particularly the case in the first year of the programme as I did not really know people on the programme. I definitely find it easier to engage with the lecturer during the block sessions on campus".* (Pio) |
| 4. To what extent does institutional policy on blended learning affect the acceptance of blended learning programmes within the Institute? | Programme Delivery<br><br>Engagement | *"I just wanted to have a recognizable qualification from an English-speaking University. Being over 30 years of age and having a family and a mortgage that requires a full-time job, the blended learning course was the obvious choice which allows you to work and have money but also get the qualification".* (Fionn)<br><br>*"I don't think that we have had heated debates but that may be down to the fact that the lecturer is doing most of the talking and there isn't much* |

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| | | *of an opportunity for debating issues discussed in lectures".* (Daire) |
| | Learning | *"some modules have too many hours. I have a feeling like the lecturer has no idea what else to put into our heads. Like on my Mondays, we have four hours of one module, and I see the lecturer is tired. We are tired after four hours. The time should be more thought out and the material as well".* (Ria) |

**Table 3.10 Links between the research questions and themes**

## 3.13 Summary

This chapter provided a detailed analysis of the research paradigm, methodology and specific method used in this study. As this is a practitioner-based study, the researcher wished to gain a deeper understanding of the research area, and for this, I deemed a qualitative method the most suitable. Sixteen participants were interviewed for this study; however, before the interviews, several measures were taken to ensure that the ethical guidelines expected for a study of this nature were addressed. The researcher also ensured that the ethical protocols were followed throughout the interviews.

# Chapter 4 Research Findings

## 4.1 Introduction

In this chapter, I aim to address the findings of this research study. The purpose of this study was to comprehend the impact of learning spaces on the student experience while enrolled in a residential blended learning programme. As mentioned in the methodology chapter, sixteen mature part-time students from one blended learning programme participated in the study. In-depth interviews were undertaken with all the participants to collect data about their subjective experiences of learning and learning spaces on campus within one specific HEI. All interviews occurred prior to the COVID-19 pandemic. To protect the participants' anonymity, all participants were assigned pseudonyms. As mentioned in the previous chapter, I adopted a thematic analysis approach to the data that was collected. I followed the Braun and Clark (2006) six-step process and identified the following themes: learning, engagement, programme delivery and learning spaces.

As part of this chapter, I will address the overarching research question for this study: What impact do learning spaces have on students' experience within a residential/ blended learning degree programme? Throughout this chapter, I aspire to answer the following subsidiary questions:

1. How do students perceive their learning experience in a formal blended learning environment?
2. How do students perceive their learning experience in an informal blended learning environment?
3. To what extent do learning theories such as social constructivism and connectivism have a bearing on how students learn in a residential blended learning programme?
4. To what extent does institution policy on blended learning affect the acceptance of blended learning programmes within the Institute?

The themes identified previously will be discussed in relation to each of the research questions.

## 4.2 Research question 1: How do students perceive their learning experience in a formal blended learning environment?

Two themes came to light during interviews with participants: engagement and learning spaces.

### 4.2.1 Engagement

In recent years, Vaughan (2010) alluded that student engagement has become a focal topic in higher education as it impacts the student's learning experience while enrolled in their programme. Participants were asked to provide an overall sense of their level of engagement in lectures that occurred both on-campus and online. Lecturers as much as possible promoted student engagement through planned activities such as sharing work based stories as with this programme used in this study. The classroom, according to **Marcella**, is a platform that enabled students to share their experiences in a way that enabled them to relate to the stories that are being shared. **Marcella** shared that the lecturers also like students share their stories: *"So, they can relate".*

From the findings, it is apparent that students have different experiences of engagement when I compared the physical face-to-face classrooms and online environments. This was evidenced by a number of students in this study. In relation to engagement, **Daire** emphasised the importance of engagement with lecturers and his peers when he was on campus. **Daire** also found it easier to engage with the programme during the on-campus sessions. *"I feel that because it is face-to-face and that you cannot really hide, our class is relatively small, so you have to engage in the class discussion, the group work activities in class and of course the group assignments".*

**Daire** highlighted that in a physical classroom with a small class size, it is difficult to not engage with the material, the lecturer and peers. **Frederick** also commented that from his perspective, students are better able to communicate their points face-to-face than in the online environment: *"It really helps when you have the face-to-face contact, it helps get points across that the online part doesn't really do".* This view is further supported by **Pio**, who stated that his experience in the physical classroom enabled him to ask questions and ask for help when he was experiencing issues, as there is an opportunity to obtain direct answers to the questions. Therefore, **Pio** was of the view that when he was on campus he *"wouldn't feel discouraged to ask questions, probably due to my class size as well and knowing them for the last two years".*

**Daire** had a positive experience with engagement in the physical classroom, while some of his peers expressed that their level of engagement in the online class differed from that in their face-to-face classrooms. As the programme used in this study had a significant element that was delivered online, it is also necessary to focus on the online experience of the students on this programme. From the interviews that were conducted, **Roderick** highlighted that during the online lecture sessions, the lecturer encouraged students to ask questions, which he felt was important to keeping him focused and engaged. He was of the view that "*If you don't ask questions, it is very easy to lose focus. Asking questions to stay engaged for the online classes is absolutely necessary"*. Interestingly, **Daire** alluded to the fact that there should be more opportunities for encouraging engagement with a lecturer during the programme: "I think that maybe a one on one with a lecturer would be a good idea at least once during the semester- just to check in to make sure that the student is engaging with the material".

**Tammy** highlighted issues in relation to engaging with her lecturer when she was off campus. She indicated that sometimes, there could be a delay in receiving an answer to her questions, and by that time, she had forgotten her question. This is worrying because this could lead to **Tammy** losing engagement in her programme. If **Tammy** had to wait a significant amount of time to receive an answer to her questions, then over time she might not email or post her questions because she may think that there is no point in doing so.

Based on the interview responses of the participants in this programme, there is also a notable lack of engagement between students. As a practitioner in higher education, this is worrying as student engagement promotes deep learning and critical thinking, as evidenced by Downing et al. (2014). Sometimes, context may also have a part to play in the level of engagement between students. Students may feel most engaged with one another when they are physically on campus. However, when students are off campus, then the level of engagement is different. As students return to full-time work, they have less time available for peer-to-peer engagement than they did before**. Daire** highlighted that while he is on campus, he feels that there is engagement between students, but when students are off campus, sometimes, that engagement is lost:

> *But when we are off campus, it feels different. It feels that everyone is distant. Maybe it is because everyone is so busy. If you text someone, it might be days before they get back to you and I can totally understand it*.

What **Daire** noted may mean that students have not engaged in creating meaningful relationships outside of the classroom. However, it should be noted that students are only on campus for a few weeks per semester and geographical distance may also have a part to play in the lack of opportunities for socialisation. A lack of socialisation can lead to situations in which students may be isolated, especially when they are off campus. This was evidenced by **Daire** as he noted he does not experience loneliness when he is on campus. However, he experienced an element of loneliness when he was off campus:

> *Even though we are meant to have our microphone on at all times, most of the students in the class do not have them on. They sign in, but sometimes there is very little interaction in the online tutorial. This makes it hard for me to ask questions, as I don't want to be the only one asking the questions all the time. I don't live near anyone in the class, and I suppose if I were closer in proximity to other members of the class it would be a different learning experience.*

To overcome this, **Alina** highlighted that an online strategy that could be implemented across all online modules is that of compulsory engagement, whereby marks are awarded to students for their engagement in online activities throughout the module:

> *If it were made to be compulsory that you attend the online session and that you make a contribution so that people would be more engaged. Maybe give students credit for attending or maybe percentage of a module be set aside for attendance.*

### 4.2.2 Learning spaces

From a practitioner's perspective, it was important to acquire an understanding of how students perceive and use their learning spaces while enrolled in degree programmes. Ellis and Goodyear (2016) have alluded students expect HEIs to offer a range of learning spaces as part of their learning experience. There are a number of formal learning spaces that students identified as their preferred learning space. An example of a formal learning space that participants identified was the traditional lecture room on campus. Brooks et al. (2012) have stated that the physical lecture room can provide students with an impactful learning experience. The findings of this study would corroborate this. For example, **Pia** identified she learnt best in the physical classroom: *"I feel that I learn best when I'm actually in the class. I suppose I'm nearly forced into paying attention in a sense. But I do learn best when I'm in the*

*classroom".* This view was also supported by **Stan**, who highlighted that he liked the atmosphere of the classroom and likened it to when he was in school: *"The classroom I think it's good, it's got a good buzz and it's a good atmosphere, but it depends on the lecturer like school".*

Furthermore, **Daire** stated he was most open to learning in the classroom,

> *I suppose I like to learn most in the classroom. I find that in the classroom, I am more open to learning. I like the fact that in our course, all the students are working in the industry, so we can learn from each other. I have noticed that students are more likely to share experiences in the classroom more than during the online tutorials.*

From the quotations on the previous page, students felt comfortable learning in the physical classroom. Students were given the opportunity to connect with their lecturers and peers in this learning space. However, participants did not refer to their online lecture sessions as one of their preferred learning spaces for this programme. This is surprising because the blended learning programme chosen for this study has a mixture of face-to-face classes and online classes and students spend considerable time online during their enrolment in the programme. Over the course of the study, participants voiced some difficulties they encountered during the online element of the programme, and this may also impact how they view their online lecture platform as a preferred learning space. Students may not feel that they are encouraged to learn and interact with the material and their peers on an online platform. This is evidenced in **Pio's** statement that it was difficult to engage online:

> "*I think that when the lecturer and the students do not use the camera function on the VLE, for me it can make it hard to engage with my fellow students and the lecturer. I found that this was particularly the case in the first year of the programme as I did not really know people on the programme. I definitely find it easier to engage with the lecturer during the block sessions on campus.*

Almarghani, and Mijatovic (2017) stated that lecturers play a key role in student engagement however, an issue that **Rian** identified in this study related to the ability to ask questions in both the online and face-to-face lecture sessions. **Rian** made an interesting observation. He highlighted that in the physical classroom, there is the opportunity to ask questions, whereas in

the online classroom, the lecturer might not have the luxury to go back over material because they are time constrained. Therefore, the student may have no option but to just *"pick it up".*

Solvberg and Rismark (2012) have stated that with the recent developments in education technology and learning, students would also participate in learning outside of the traditional classroom. However, with this study, there is evidence that the online element of the programme did not provide some of the participants with the same learning experience as in the traditional classroom. Therefore, it was obvious that the online platform environment may not suit all students because the design of the platform may lead to students feeling uncomfortable with the environment or the learning space. Strange and Banning (2015) noted that if HEIs wish to promote successful learning, lecturers have to enable students to become involved in their own learning. However, **Daire** highlighted the difficulty he experienced with engaging in online sessions. There is a possibility that students are disengaged from the online environment and would prefer to take part in face-to-face lecture sessions:

> *When I am off campus, then I feel less engaged. I feel it is a chore to have to do the online session. Maybe it is the online modules or the fact that I am off campus. I feel I am not in college, so I do not have to engage. I see that I tend to do worse in the online modules and I am putting that down to me being not engaged with the material.*

Furthermore, **Ria** highlighted she felt uncomfortable with the online platform because she found it to be an alien learning space. She even found that asking a question placed her in an uncomfortable situation. This resulted in **Ria** not engaging with the lecturer or the lecture content. This may mean that even when **Ria** had a question, that question remained unasked in the online platform: *"I think when I have to ask a question then I don't feel comfortable, and I have to use my mike. It is like a strange interaction".*

However, it should be noted that not all participants in this study found it difficult to engage with their module when they were participating in the online sessions**. Roderick** was of the view that the online session enabled him to be focused and engaged. The short duration of the online sessions means students like **Roderick** can be focused and engaged for the short period for which they are online. Interestingly, he mentioned he learnt best online and that there should be more online classes than are currently offered as *"the online classes keep you engaged. If you run online classes in between the block and the exams, you are kept in that sort of learning environment"*.

Indeed, **Roderick** found it easier to engage with both the lecturer and the lecture material on an online platform than in a traditional classroom. *"I personally found it was easier to engage with the lecturer and the material online. I was kind of looking forward to it as well".*

## 4.3 Research question 2: How do students perceive their learning experience in an informal blended learning environment?

Three themes came to light during interviews with participants in relation to this question. These were: learning spaces, learning and engagement.

### 4.3.1 Learning spaces

In this study, the classroom was viewed as a preferred formal learning space. Thomas (2010) has stated that learning will more likely occur in spaces outside of the traditional classroom. Participants in this study identified a number of informal learning spaces they preferred to use during this programme, such as the library, the group project room, the home office, a café, a pub, and hotel rooms. Several participants identified the library as their learning space mainly because it was a quiet space where they had the opportunity to participate in learning. For example, **Celina** highlighted that she *"liked using the library, especially the quiet areas".* The social element of using a library space is reflected in how **Frederick** preferred to use the library space with his group of friends. He would use the library for two or three hours after lectures to understand the material that they had been exposed to. It is interesting to see how students see the library as both a quiet space and a space for socialising, albeit quietly. The library space has changed from a place where a student could obtain and return textbooks to one where students are provided with a space to think and reflect on material that they have covered in lectures.

A second informal learning space that participants identified was the group project room, which they identified as a suitable collaborative learning space, especially for working on role plays or general module assignment tasks. The group project room could be viewed as a space where a social constructivist approach to learning can be adopted. This is evidenced in **Finn's** perspective of why he uses the group project room:

> *I find that it is good for role play. It is great writing down a few ideas and to put together whatever the team members need to do for the role play. It seems to work very*

> *well. It is also a good place to work on an assignment and there can be three or four of us working away on an assignment that needs to be in for the next class*.

The group project room was a space that **Kisheen** preferred to use as it was not overwhelmingly silent:

> *If I am learning in the college, I've always preferred a little more bustle around me while I'm studying, than the deathly silence of the library. I get a little bit more distracted when I am in a quiet place*.

The students who preferred to use the group project room in this study had different reasons for using this space. However, the social element associated with this learning space was evidently important for these students. Although in **Kisheen's** case, he was not directly interacting with his peers, he needed to be surrounded by others to undertake any form of learning.

The third informal learning space that participants used was their home office or spaces within the student's home. **Rian** identified that his main reason for studying in a space in his home was that it was not viable for him to learn at college, *"as I find it very difficult to learn on campus. I need to be in my own home environment to learn".* Some students have a home office they like to use when they are not on campus. Students are only on campus for three or four weeks of the semester and some students do not live near the campus, therefore students need to find a space where they can learn when they are not on campus. This is reflected in **Daire's** response: *"I have a home office which I probably use nearer to the exams if I am not on campus".*

For students like **Rian**, the comfort and familiarity of their home space is important when they are undertaking learning activities. Interestingly, **Frederick** identified he uses a meeting room in his workplace as a learning space because he could not use the library or his home environment for learning. It may be that his workplace environment is familiar to him, and he feels comfortable enough to focus on his learning in this space:

> "*probably one of the meeting rooms at work. Literally, I'll go on my day off. I can't study at home, because it's just too comfortable. I find I just relax. Whereas if I go into*

> *my professional area, I suddenly click on a bit more. I wouldn't really go to a library or study at home.*

Another informal learning space that participants identified was their hotel room. During on campus lecture periods, some students live a considerable distance from the campus, they often stay in hotels nearby. Therefore, their hotel room becomes a learning space. **Ruby** stated she found it difficult to focus on her lecture content when she was on campus. She felt she was the least distracted when she was on her own in her hotel room: *"I have to go back to the hotel, and I just go there on my own and I do it on my own where I can focus. I get distracted easy because people are kind of noisy".*

Some students may choose an informal learning space because of their sensory elements or the chance to socialise with others. Although the participants below identified neither of these as reasons for choosing a café or a pub setting as a learning space, pubs and cafes can be bustling spaces where students do not feel alone. Stan stated he preferred to use his local pub as a learning space. Again, that environment is likely familiar to him, and therefore, he feels comfortable in that space. **Stan** noted he finds that there are too many distractions for him on campus, therefore the learning space for him is the pub:

> *I find for me that if I go down to the pub for a pint, I pull out the tablet and have a look at the material for an hour or two and it works well for me. I am sure that everyone is different.*

**Marcella** also mentioned that she liked to use a public space, such as a café, to learn. Similar to Stan, maybe she feels comfortable in that environment. However, it is not the background noise that is comforting to her. Maybe she likes to be in a space where she feels she is not alone, but people will also not bother her while she is learning: *"I can't study at home, and I can't study at work. I like to go to a cafe somewhere, put the headphones on.".*

Although the informal spaces identified in the previous paragraphs are ones that many students use, interestingly, **Roderick** identified he had found a little space in the hallway of the main campus that he used as his learning space. This space is quite a noisy space where students congregate nearby. This participant identified he liked the background noise of that space, although he could not provide a reason. Students, including **Stan, Marcella** and **Roderick**, may prefer to be in a space where there is some background noise present, but they still prefer

to be in a space where they can learn individually. These students may prefer to use these spaces to learn cognitively so they can have a space to think and reflect on the content they have been exposed to.

Digital technology can provide another space for informal learning, which has grown in popularity in the last two decades. As a result, students in higher education may also use digital platforms as informal learning spaces. However, in this study, this was not the case. For instance, **Daire** viewed these social media platforms as brief communication platforms. This may be because, in this study, participants identified that there was minimal use of social media platforms, such as WhatsApp, and it was mainly for short interactions, as evidenced in **Daire's** response:

> *we have a WhatsApp group, but it is mainly to ask short questions, but if you want to have a more in-depth conversation, there is really no place to do that, unless you are willing to ring a person directly.*

### 4.3.2 Learning and engagement

From my practical experience of teaching students, I have seen students using several informal learning spaces. However, interestingly, only one participant, **Pio**, mentioned that he used more than one informal learning space. **Pio** chose his informal learning space based on the type of learning that he had to undertake:

> *I use the library for writing reports, for anything where I have to take in information, so anything that is theory laden. I like to try to get my own space and just to focus. But anything kind of practical, I prefer the group project room for that kind of scenario because I sometimes work and I learn better when I am teaching other people*.

From **Pio's** response, it seems that he has specific purposes for the informal learning spaces he likes to learn in. **Pio** likes an informal learning space that is quiet and with a minimal possibility of interaction with others when he is dealing knowledge that he is not comfortable with. He needs a space that enables him to think cognitively, and the library space enables him to process new knowledge. However, it would seem that **Pio** is also comfortable in a group project room setting for material that he is more at ease with. The way Pio engages with his colleagues in the group project room here indicates that he is also actively engaged in his

learning when he is in a social context. With students today being so connected to their technology, such as their mobile phones or tablets, it was interesting to see that students still held a preference for learning in physical spaces, as opposed to virtual or online spaces. It should be noted that the students who participated in this study were between 23 and 55 years in age and were all comfortable using technological devices, such as laptops, tablets and mobile phones. The students were also familiar with social media applications such as Zoom, WhatsApp, Facebook and the VLE software for the programme that they were enrolled in

## 4.4 Research question 3: To what extent do learning theories such as social constructivism and connectivism have a bearing on how students learn in a residential blended learning programme?

Two themes came to light during interviews with participants. These were: learning and engagement.

### 4.4.1 Learning

Learning, as Glasby (2015) has stated, should be an active process. With this in mind, as I listened to the recordings from the sixteen participants, I identified two factors linked to the theme of learning, which included how students learnt and the ability of the students to reflect on their learning during the delivery of the programme. From listening to the interviews, it was also apparent that learning can occur on both individual and group bases. Although some students may have a preference to take part in groups to learn and the completion of tasks, some participants, such as **Celina**, voiced the view that her preference for learning is to learn on her own. Based on **Celina's** response, this may be because of a negative experience:

> *the person you would have to partner up with would not have to have the same level of interest as I would. They tend to be on their phone or just let you do the work. So sometimes, I prefer being on my own for that reason.*

In the instance of this study, there was evidence of group learning. Learning as part of a group can also assist students to learn from other people through the sharing of examples. Koopman et al (2014) are of the view that theory of constructivism in relation to learning focuses on enabling students to not only to learning individually but to also collaborate with their peers to construct and reconstruct knowledge**. Stan's** experience of learning in a group setting reflects a social constructivist approach to learning. "*there can often be three or four of*

*us working away on an assignment and we have a space to share our thoughts with one another and to debate our views or opinions on our approach to our assignments".* Indeed, **Daire** expressed this in his response by stating the following:

> *I definitely learn better as part of a group. Even though I have had a bad experience with a group project in the past, I find that I learn better from other people. I find I remember their examples during the exams and sometimes their examples are way better than the lecturer's examples- maybe more current as well.*

This is very much in line with Bada and Olusegun (2015) view, where students can benefit greatly from interacting with their peers rather than sitting passively in a traditional classroom. **Pio** furthered this by expressing his view that for students to take on the role of the lecturer/teacher in a group learning setting. From his response, **Pio** seems to relish the prospect of being able to share his knowledge with others in the group. Furthermore, **Pio** stated that even if he does not fully understand the material, discussing it with others in the group enables him to interact with the material in such a way that he can understand it:

> *I learn better when I am teaching other people. If I am doing a financial subject and if I was kind of any way comfortable with it, I'd be working away but I'd be answering other people's questions who wouldn't be as comfortable with it. And by doing that and reinforcing it on myself, I would also teach them at the same time and that's when I understand it more.*

Students are encouraged to interact with each other in both face-to-face classrooms and online environments. Therefore, students in the blended learning programme in this study should be given the opportunity to construct their own knowledge throughout all aspects of the programme. Although group work is regularly used in the campus lecture sessions for the blended learning programme in this study, **Daire** highlighted he would like there to be additional online opportunities for group work. However, issues can sometimes arise with the use of group work. This was evidenced by **Rian** when he stated that sometimes in group projects, tempers can be frayed, and students can get irate with one another and almost end up in fisticuffs: *"I've also seen tensions over projects and group projects where people are going at each other's throats".* In addition, in group scenarios, students might feel stressed and pressured. This pressure is so intense for people like **Rian** that they feel it is not safe to ask questions.

The social element of learning is an area that was important for students in this blended learning programme. Van Merriënboer and De Bruin (2014) highlighted that theory of social constructivism in relation to learning places an emphasis on students sharing content, often with the aid of multimedia tools. As an element of the courses using in this study are delivered online, students have access to a variety of multimedia tools. In addition, there are activities that promote interaction among students during the online elements of the programme, the data suggests that the on-campus block element of the programme provides students with the best opportunity to learn in a social context because the students are together for five to six hours a day for three to four weeks. Indeed, this is evidenced by **Daire**, who stated that in a classroom context, "*I feel like I find that I learn better from other people, I find I remember their examples as well during the exams".* Some students may see the benefit of learning in a social context on campus. However, **Alina** questioned the use of groups for learning in a programme because she experienced a degree of uncomfortableness about forming a group with students that she did not know very well especially in an online setting:

> *I think it is easier to work collaboratively when you have actually spent more time with the group and maybe face-to-face prior to completing a task. Whereas if you were to set a group task in a collaborative setting online, I don't know how successful that would be. You know, trying to arrange topics to discuss without seeing the person face-to-face.*

Students also like to connect and learn through the sharing of stories with both their lectures and peers. There is evidence that the participants in this study learning from the networks that they formed in the classroom which as Evans (2015) is how the theory of connectivism enables students to further their learning through sharing knowledge and providing feedback to peers in their network. **Daire** expressed he liked to connect with others and learn from them: *"I like the fact that in our course, all the students are working in the industry so we can learn from each other".* For students like **Marcella**, sharing these stories is an opportunity to link theory with practice. There is also the prospect that students may learn more about what happens in practice that can be difficult to express in a student textbook. **Marcella** highlighted student could share their stories with others as students can learn from them. *"I suppose every lecturer actually asks you for your opinion and to share your stories. Most of the lecturers have experience in the industry".* However, context needs to be considered. While **Daire** and **Marcella** expressed a willingness to share their experiences and

learn by connecting with others, **Daire** also expressed that he had *"noticed that students are more likely to share experiences in the classroom more than during the online tutorials". In* the instance of this study, students may be more comfortable sharing their experiences on a face-to-face basis than online. **Frederick** expressed: *"It really helps when you have the face-to-face contact. It helps get points across that the online part doesn't really do".* Although **Frederick** could not explain this, **Rian** suggested it may be because some students are not comfortable sharing their views on an online platform and that students do not feel connected to their peers: *"I found that from my experience, the online element can be impersonal. It feels like you are listening on a laptop to what they are saying. They are just talking. You are not as included".*

An important element of learning is the opportunity for students to reflect on what they have been exposed to and learnt throughout the semester, as reflection may promote higher-order thinking. However, there is evidence from this study that some students may not have been afforded the opportunity to reflect on their learning experiences. This can be seen in **Roderick's** response, where he expressed that *"during the four-week session, it is very difficult to reflect on what you have learned. If we are having long days from nine to six by the end of the day, you re kind of tired from it".* However, in this study, context may have a part to play. Although there may have been a limited amount of time available for reflection, **Marcella** commented it was easiest to reflect on the material during the online sessions:

> *because the block is so condensed and intense, I think once you leave, it is kind of behind you for a while. And then you have to go look back on it. But with the online, you are in your workplace, it kind of pops back into your mind and it becomes relatable.*

As noted in **Marcella's** comment, the on campus block element is intense, with students often having lectures from 9 am to 5 pm. With this intensity of lectures, students may not have sufficient time available for reflection. **Marcella** also made an interesting observation that when she leaves her on-campus block session, she may not have time to look at the material for a period. When she looks at the material again, one would wonder whether she has enough time to reflect on the material or she is just rote learning the material for exam purposes. **Celina** expressed she needs time to process and interpret knowledge, and from her perspective, she needs to do this on her own.

> *I prefer to have time to process on my own what I learn and make sense of it. I can't do that in a group as I get distracted easily and I feel that sometimes in a group the focus turns away from lecture material to personal issues.*

**Celina** may be viewed as a learner who adopts a cognitive approach to learning and prefers to learn individually. Therefore, learners like **Celina** should be afforded opportunities to learn and interact with information individually. From Celina's comments, she appears to be a focused learner who is best suited to individual learning, and perhaps, these types of learners would not be comfortable learning in a group scenario where they are distracted by issues outside of the learning topic that group members want to discuss.

### 4.4.2 Engagement

Asikainen and Gijbels (2017) are of the view that students who participate in courses in higher education in higher education are expected to gain a great depth of knowledge in their chosen field of study. Therefore, there is a need for students to engage in deep learning throughout their course. In order to gain that depth of knowledge students have to be able to engage with the material they are exposed to. The second theme identified to address research question three, was the theme of engagement, which focused on how students viewed their engagement during their time on the programme. Students are expected to develop critical thinking skills because they will be required to make important decisions at managerial level in their workplaces and, therefore, this skill needs to be promoted throughout this programme. Although blended learning offers students flexibility in access to higher education programmes, students need to be actively engaged in their learning. Under the theme of engagement, the participants in this study focused on a number of areas, engagement with the lecturer, the engagement that students have with each other during their programme.

#### *4.4.2.1 Engagement with the lecturer*

Engagement is an important element in relation to motivating students to learn. Sometimes students can find it difficult to engage with their lecturer. This is evidenced by **Pio** especially in an online context that it was difficult for him to engage with his lecturer and his peers, especially when they did not use the camera function:

> *I think that when the lecturer and the students do not use the camera function on the VLE, for me it can make it hard to engage with my fellow students and the lecturer. I found that this was particularly the case in the first year of the programme as I did*

*not really know people on the programme. I definitely find it easier to engage with the lecturer during the block sessions on campus.*

#### *4.4.2.2 Engagement with lecture content*

A student's ability to engage with lecture content is important. Students in this programme are completing an undergraduate degree programme, they are expected to engage in deep learning to develop their critical thinking skills, especially in the second and third years of their programme. Therefore, it is necessary to focus on the content that is covered in the modules delivered in the blended learning programme. In this study, I focused on the content that was delivered and the relevancy of the content because these were issues that students raised during the in-depth interviews. **Rian** highlighted that the content they were exposed to during the lecture sessions was useful for their workplace:

*I also like the way that our specific programme is condensed a lot more to what we need to know. Everything I'm learning, I'm going back to work, and I am implementing it. I learn it inside in class and I come back after my block and I am using that knowledge almost immediately.*

## 4.5 Research question 4: To what extent does institution policy on blended learning affect the acceptance of blended learning programmes within the Institute?

The previous findings centrered around learning spaces that the participants preferred to use and their experience of learning during their enrolment in their blended learning course. However, for students to have access to multiple learning spaces and to have positive learning experiences while enrolled in their blended learning course, it is imperative that an institution consider establishing blended learning policy if one is not currently in place. This view is supported by Thurab-Nkhosi (2018) who is of the opinion that if HEIs are adopting a blended learning approach to delivery courses, then an institute must contemplate develop and implement a blended learning policy. As mentioned previously, there is an absence of a blended learning policy in the institute used in this study. Therefore, if a blended learning policy was to be introduced into the institute, it should take the three themes that came to light during interviews with participants into consideration. These were: programme delivery, engagement and learning.

### 4.5.1 Programme delivery

Lim et al. (2019) and Porter et al. (2016) recognised several difficulties that need to be addressed prior to implementing a blended learning policy. The participants in this study identified several challenges that they encountered in relation to the delivery of the programme. The majority of students enrolled in this programme would be deemed mature students who are over the age of twenty-three work full time and some of them have family commitments. These students would not be in a financial position to cease working and study full-time. However, they have a desire to earn a higher education qualification, and therefore, these students are seeking a programme that is flexible to fit around their work and family commitments. **Fionn** identified he was seeking a third-level qualification. However, he has work and family commitments, and therefore, he was seeking a course that would fit around his commitments:

> *I just wanted to have a recognizable qualification from an English-speaking University. Being over 30 years of age and having a family and a mortgage that requires a full-time job, the blended learning course was the obvious choice which allows you to work and have money but also get the qualification.*

The majority of students in the programme live a considerable distance from the campus and the flexible nature of this programme meant that students from all over the country could attend because they did not have to be on campus on a full-time basis. **Stan** highlighted the flexible nature of the programme whereby the student can be anywhere and log into the VLE and listen to the lecture:

> *for the online classes I can be driving to work or home and I could pull over and listen to the lecture. And I find that very handy. Because you do not have to be in a particular area, you could be anywhere. I can be away in the UK or in Spain and I can login and participate in the live lectures.*

However, it should be noted that **Ria** identified that even though the programme that she was enrolled in was a blended learning programme, there was a lack of flexibility in relation to the delivery of the programme. The on-campus timetable for when the students have their intense three or four weeks is rigid, and there is little room for flexibility because students have a full schedule each day they are on campus:

> *the strict schedule of the programme means that there is little scope for flexibility in the onsite weeks on campus and in the scheduling of the end of semester exams. The on-campus delivery is from 9am-5pm. It is very tiring and there is little flexibility in the timetable. If this was a little more flexible, it could be more helpful*.

**Alina** also highlighted the need to change when examinations were held for the modules, as it often clashed with busy periods at work:

> *I feel like if we could do more of our exams straight after our block, it would be the best thing. We normally have a couple of weeks' wait and the exam blocks coincide with the busiest times for us. And getting time off for that or even getting time to study before that is an absolute nightmare.*

I found that from analysing the data in this study, sometimes the lecture content itself was a concern for the students. Students who are enrolled in this programme hope that the material they are exposed to during the programme will assist them in career progression. However, this was not always the case, as expressed **Ria**:

> *sometimes content that is not related to my workplace is presented to us in the classroom. It is kind of annoying me because I want to study what I need in the workplace. And sometimes I have a feeling like I'm losing my time. I need to get knowledge that I can use in my workplace so that I can progress my career as a manager.*

From this quote, the student was experiencing frustration with the content delivered in the programme. Although the staff in this programme can be seen to have accumulated significant practical knowledge of the subject area prior to becoming academics, it is important that staff are allowed to develop their knowledge and skills within their own subject areas and this can occur through professional development programmes. **Stan** also had issues in relation to the usability of the content that they were exposed to in lectures:

> *I think sometimes, some modules are heavy on the theory that I probably will never use again in the industry that I work in. In some cases, I have to write a long essay around this content that I know that I will never use again which I think is a waste of my time*.

It was clear that **Stan** was frustrated with the fact that some modules were very theory based. Students in the programme are looking to further their careers, it would seem that their focus is very much on industry-related content of a practical nature that they can implement when they return to their workplaces.

Another issue linked to the usability of the lecture material is that some of the content that was delivered was deemed by students to be outdated. While some participants in this study noted that they were exposed to the latest trends and topic areas that would assist them in their quest to further their careers, a number of participants also noted that outdated content was presented, which is a concern. For example, **Tammy** highlighted that some of the recorded content was outdated, *"I am not sure when they were recorded. They could we be more modern, maybe with more reference to things like Brexit".* The responses of the participants indicated that the content they found to be outdated was the content that was delivered online. This was evident from **Finn's** response when he stated that:

> *the one issue we had an online was a lot of the stuff was not updated. There were videos put up, and we were asked to watch the video and then give our feedback on it. And the video didn't work, which led to frustration I suppose, from the lecturer's point of view, make sure that your slides are up to date.*

### 4.5.2 Engagement

The students in this study need to have the opportunity to communicate and collaborate during their time in the programme. At the start of the programme, practitioners encourage social interaction through icebreakers. Participants like **Tammy** mentioned that there were given the opportunity to get to know each other at the start of their programme: *"they used an icebreaker, where we told everybody two or three things about ourselves".*

However, there are a number of pedagogical issues that affect the practitioner's delivery of their content. First, the practitioner may not be cognisant that students need to have an opportunity to engage actively with their lecturers on the online platform. Within this study, there were instances during the delivery of the programme when students felt they did not have the opportunity to engage with their lecturer. This is evidenced in the remarks from **Daire**, who highlighted that in the online platform, sometimes lecturers do most of the talking and there is very little opportunity for students to actively participate in a discussion*:*

> *I don't think that we have had heated debates but that may be down to the fact that the lecturer is doing most of the talking and there isn't much of an opportunity for debating issues discussed in lectures.*

**Ria** noted the difficulty of interacting with lectures in the online environment. She noted that in the online environment, it is difficult to ask or answer questions. She that sometimes felt under more pressure in the online environment than in a physical classroom and that students may feel that they have insufficient time to type in an answer to a question, *"It is sometimes not easy to answer the questions. It is not easy to ask the questions because you have to type it in".*

Interestingly, **Tammy** highlighted that social interaction should have been promoted in, perhaps, the form of an assignment at the beginning of the programme or even as an icebreaker to encourage social engagement:

> *maybe part of an assignment could be around social interaction maybe on Zoom for example, at the beginning of the programme, they could have some kind of icebreaker, where you have to spend maybe an hour, interviewing and talking to everybody else in the class, telling everybody two or three things about yourself.*

The suggestion from **Tammy** may help to develop opportunities for socialisation in the programme in the future.

As this programme is blended in nature with students spending a significant amount of time off campus, it is important for students to engage with their peers, especially to offer support to one another. This is evidenced by **Fionn**, who stated that student face problems during the programme and often require peer support:

> *After the first semester, you realise your problems are not unique. And there is a comfort that you are not the only one facing the same problems. You just pick up the phone or you text someone or we have a group on messenger, and you just show the problem and then someone may give some solutions. Or if somebody cannot give you the solution, they can comfort you by saying, don't worry, you are strong, you can do it.*

From **Fionn's** perspective, after the first semester, students have engaged with one another in such a way that some students felt comfortable putting their problems out there and requesting support when they were finding the material difficult to understand.

Second, there is the issue of accessibility in relation to course material. Although **Daire** did not specify whether he felt that both the classroom and online material may be out of date or not delivered engagingly. **Finn** also noted that sometimes, links did not work properly:

> *the one issue we had an online was, a lot of the material was not updated. There were videos put up, and we were asked to watch the video and then give our feedback on it. And the video did not work, which led to frustration*.

From the quotation above, one can sense **Finn's** frustration, which may impact his ability to engage with the programme.

### 4.5.3 Learning

From the research findings of this study, I identified issues in the data in relation to learning within this blended learning programme. The first issue in associated with learning was information overload. Students in this programme are only on campus for three to four weeks per semester. There is a possibility that students may be exposed to a lot of lecture material that they have to process while they are on campus, and they may be required to read additional academic articles or view video material. In this research study, **Ria** highlighted the following in the context of the content delivered on campus:

> *some modules have too many hours. I have a feeling like the lecturer has no idea what else to put into our heads. Like on my Mondays, we have four hours of one module, and I see the lecturer is tired. We are tired after four hours. The time should be more thought out and the material as well.*

From this quotation, one can see that **Ria**, as a student, experienced tiredness and frustration because, sometimes, students are timetabled for too many hours for some modules. This can also be seen in **Marcella's** response:

> *we have six hours of one module and you are looking at a computer screen for six hours. It is not productive. It is quite difficult because you are looking at a screen for a very long period of time. Do we need to have all of those six hours on the one day?*

**Marcella** highlights it is difficult for students to be in front of a computer screen in a laboratory for six hours. **Marcella** also asked a very pertinent question: *"Do students need to have six hours of the same module in one day"?* There might be timetabling restrictions on laboratories, and that may explain why students have six hours of a computer-based module all on the same day. However, from a student learning perspective, one must question how productive those six hours are for the student. Although they are physically sitting in front of a computer, are they actually learning?

**Rian** also focused on the issue of information overload in his response:

> *we have one module where we have so much information. On Tuesday, we have that one module and lecturer for five hours straight. And you get to a point where, you are looking at him, I can't learn anymore, I have hit my wall.*

The responses from **Ria, Marcella** and **Rian** highlight issues students face when they are presented with too much information. From their responses, one can detect that the students experience a sense of frustration, tiredness and being overwhelmed. They also evidenced a feeling of being overwhelmed in a response from **Finn**. From listening to **Finn**, it was clear that students were feeling under severe pressure and were left drained by the overload of lecture content. *"I suppose the only difficulty with the course is that there can be too much content in some lectures. Sometimes it just felt like it was overwhelming. There was just too much required from us".* **Celine** furthered this by expressing that she found it tough to sit in a classroom and sit through a PowerPoint slideshow where there was a sizeable amount of material covered in a lecture session: *"sometimes if they lay out 57 slides and they go over it all in 40 minutes, I find it very tough".* One would question whether all these PowerPoint slides are relevant. Indeed, it could also be a case where the lecturer has not taken the time to review their lecture material before delivery. Is it necessary to have a large number of slides? Could the lecturer adopt a flipped learning approach whereby students are given readings and activities to do prior to the lecture occurring? This method of delivery seems not to be a conducive way of encouraging students on this programme to learn.

The four themes that emerged from the data collected for this study all impacted how students experienced blended learning programmes in the institute in this study. With this in mind, I developed a framework that highlights that each of the four themes—learning, programme delivery, student engagement and learning spaces—has an important part to play when planning and implementing blended learning programmes in a higher education institute. I will discuss this in further detail in the proceeding chapter.

## 4.6 Chapter Summary

In this chapter, I provided an in-depth discussion of the findings of this study. From the discussion, the four themes that were identified are interlinked. The four themes of learning, engagement, programme delivery and learning spaces are important elements to consider when offering a blended learning programme similar to the one in this study. As practitioners, we need to understand how our students learn, what leads to students becoming engaged or disengaged during their programmes, the importance of content delivery and the learning spaces that students prefer to use during their enrolment.

# Chapter 5 Discussion

## 5.1 Introduction

In this chapter, I will discuss the results of my study in relation to the central research question, what impact do learning spaces have on student' experiences within a residential/blended learning degree programme? The research in one HEI in the Republic of Ireland. A specific part-time programme was chosen for this study, as Hunt (2017) highlighted that part-time learning in higher education in Ireland is very much an under researched area. While there is an increasing focus on offering blended learning programmes across HEIs in Ireland, there should also be an emphasis on how students use their learning spaces while enrolled in blended learning programmes. Warner and Palmer (2015) and McCarthy (2016) are of the view that learning is becoming more student led and self-directed in higher education as opposed to the traditional instructor led learning. Therefore, students will require learning spaces to engage in self-directed learning, be it online or a physical space, such as a library or a group project room. A prior study by Leijon (2016) noted that learning spaces can have a significant impact on student learning experiences in higher education. Finally, in this chapter, I will discuss the four elements of the blended learning framework, which I devised to enable other practitioners to comprehend the factors that can impact the learning experience of a student on a blended learning programme.

## 5.2 Research question 1: How do students perceive their learning experience in a formal blended learning environment?

An analysis of the findings in relation to this question identified two themes, engagement and learning spaces.

### 5.2.1 Engagement

Almarghani and Mijatovic (2017) highlighted the important role of the lecturer in the student engagement process. Lecturers on this programme promoted student engagement as much as possible through planned activities both in the physical and online classroom. This was to encourage engagement with lecturers and peers, which is especially important in the case of the programme used in this study, as students are only on campus for three to four weeks during the semester. The importance of engagement was highlighted by a number of participants which occurred in the face-to-face lecturers on campus. Participants in the study highlighted that their levels of engagement differed depending on whether they are on or off

campus, with one participant emphasising that he was of the view that it was easier to engage with peers on campus. This is a cause of concern for the programme chosen for this study as a significant component is delivered completely online. Almarghani and Mijatovic (2017) stated that, with the use of information technology, there was the opportunity for students to actively engage with the content of their programme. However, the findings in this study indicated that, at times, interaction online between lecturers and peers was non-existent. This impacts engagement overall. Interestingly, one participant suggested that compulsory attendance for the synchronous online session could be introduced along with credit for participation during these sessions as a way of improving levels of engagement.

As a practitioner who has delivered modules in the past for this programme, I would have used a number of tools on the VLE to engage with my students. This would include discussion forums, voting, and group work during synchronous sessions. In this study, lecturers used technology both in the physical and online classroom. However, researchers Wicks et al. (2015) found a need to look beyond technology and focus on how practitioners teach online to ensure students remain engaged in online environments. Practitioners can sometimes place too much emphasis on technology itself and fail to ensure that students are engaged with their peers and with the module material throughout the programme.

Engagement with one's peers is an important element of a blended learning programme, especially from a socialisation perspective, as identified by Ryan et al. (2019). Heffernan (2018) also highlighted the importance of social engagement with class peers, especially from the perspective of socialisation and support. Redmond et al. (2018) found that students need to create meaningful relationships with their peers. The physical classroom enabled students to share their work experiences with their peers and provided a platform for students to easily ask questions if they were experiencing issues with module material. Surprisingly, the participants in this study highlighted that they felt they engaged more with their peers on campus than with the VLE. However, at this point, it should be noted that De Bora et al. (2020) emphasised that some students find it difficult to engage online. This is evident where one participant cited she found it difficult to engage online because of delays in receiving answers to questions that she had posed. As a result, this impacted her ability to engage with the material, her peers, and her lecturers. The participants in this study, while they varied in age, were competent at using technology. Therefore, one would question why these students found it difficult to engage with each other on an online platform

### 5.2.2 Learning spaces

In this question, the focus was placed on formal learning spaces. The participants in this study identified several preferred formal learning spaces. Morrone and Workman (2014) are of the view that HEIs are putting funding into developing learning environments to ensure and encourage students to interact in a learning space that offers them a sense of security and comfort. However, it is important that they are aware of how students will use spaces within these environments for learning and engagement purposes. Strange and Banning (2015) posited that if successful learning is to be promoted in an HEI, then lecturers need to provide students with a space to enable them to be involved in their own learning during their time in the programme. Leijon (2016) holds that learning spaces can have a significant impact on a student's learning experience in a higher education programme, even though, to date, this area is a much under-researched topic in higher education. In recent times, Ellis and Goodyear (2016) and Leijon (2016) posited that the concept of learning spaces and how they are managed in higher education is, very much under-researched, and this is evidenced by the limited number of theories in the area of learning spaces.

In this study, numerous participants identified the lecturer room as their preferred formal learning space. Interestingly, Schmidt et al. (2015) posited that the lecture theatre is considered a place where students feel least engaged. In this study, student numbers are approximately thirty per year of the programme, therefore students are often placed in smaller classrooms rather than large theatre halls. The smaller size classes may seem less intimidating to these students and, in addition, as these rooms are smaller, students may feel closer to their lecturer and peers and this may aid their levels of engagement when on campus. Interestingly, Brooks (2012) highlighted that the lecture room can have a significant impact on student learning experiences. It was clear from the responses of participants that they enjoyed the ability to physically interact with their peers and their lecturer in the physical classroom. Furthermore, a number of participants highlighted they had no problem posing questions to their lecturer or taking part in activities with their peers.

As mentioned previously, all participants on the programme used in this study work on a full-time basis. Although Ellis and Goodyear (2016) found that formal learning spaces can also include the workplace, it is interesting to note that none of the participants in this study viewed their workplace as a formal learning space, even though the students in this programme use their workplace as a training space for their future careers. However, two participants

mentioned they preferred this programme, as they could implement some of the content they discussed in their lectures when they returned to their workplace.

The VLE or the formal online learning space was also explored in this study, as Simarmata et al. (2018) stated that with the advancement of technology, students have a new learning space to interact with. As discussed previously, some participants found the VLE a difficult and challenging learning space. Glasby (2015) highlighted a prominent issue to consider when offering blended learning programmes, where time needs to be spent on reflecting on how to integrate technology, pedagogy and the learning space so that the needs of the learner are catered to. Indeed, Radcliff et al.'s (2008) Pedagogy, Space and Technology Framework identified that these three elements are interconnected and have an influence on each other. If students do not see the technological element of this programme, the virtual learning environment, for example, as a learning space, then questions about why this is the case need to be asked. It may be the case that the VLE has not been developed in such a way that students feel comfortable referring to the VLE as a learning space. Doyle et al. (2017) posited that some students may feel uncomfortable in an online setting because of the alien nature of that environment for that student. This was indeed the case for one participant in this study who felt that the online environment was one that she was not used to. De Borba et al. (2020) also noted that students may find it difficult to engage in a module online because of their preference for on-campus lectures as opposed to online lecture sessions. Again, this was evident in the responses of some participants where these participants were of the view that it was easier to engage in a physical face-to-face setting than an online environment. Practitioners might not understand that students find the online platform to be a strange learning space. When we as practitioners are comfortable engaging in an online environment, we often presume that the students also are comfortable with this learning space in a higher-level institute. Interestingly, Croxton (2014) stated that students participating in online learning expect to have less interaction with their peers than face-to-face lecture sessions. However, while less interaction may be expected, a number of participants stated they experienced isolation during their online element of the programme. This isolation may lead them to feel less engaged with their programme and may mean that they do not perform as well in their online module. One participant highlighted that his grade for the online modules was lower than the grades for his face-to-face campus modules. While this may be because of the subject nature of the module, this participant noted he did not feel as engaged with these online modules throughout the duration of the programme.

## 5.3 Research question 2: How do students perceive their learning experience in an informal blended learning environment?

Thomas (2010) stated that there is an assumption that learning only occurs in formal learning spaces, such as lecture theatres. The findings of this study indicated that learning does not only take place in formal learning spaces, as identified by Thomas (2010). Strange and Banning (2015) identified a number of informal learning spaces in higher education and the participants in this study highlighted a range of informal learning spaces they preferred to use while enrolled in the programme. Furthermore, Cunningham and Watson (2015) posited that more learning can occur in informal learning spaces than formal ones. Three themes came to light during interviews with participants. These were: learning spaces, learning and engagement.

### 5.3.1 Learning Spaces

It was encouraging to see that several participants stated they preferred to use the library as their informal learning space. Cox (2018) is of the view that libraries were traditionally viewed as quiet spaces and one participant confirmed she liked to use the quiet space in a library. Even though libraries are seen as quiet spaces, Vanichvatana (2020) stated that libraries can also be viewed as social spaces for students where they are surrounded by their peers, but not necessarily interacting with them. Some participants chose the library not just for the quietness but that there were other students around them so that they did not feel alone as they were learning.

Other participants preferred to use the group project room as their learning space as it enabled students to socialise as they were learning. Croxton (2014) and Picciano (2017) found that students can learn in a social context, especially if they are comfortable interacting with their peers and motivated to build their own knowledge to solve problems. While one participant stated he could not learn in a space that was quiet, Vanichvatana (2020) drew attention to the fact that there may be significant issues with concentration because of multiple distractions in these environments, which can be the case in the group project room. There is evidence of the issue of distractions where one participant stated they could not study in a space that was noisy, such as the group project room.

Interestingly, a number of participants mentioned they liked to use their home office and their hotel room as a learning space, as the sensory elements of the environment may provide comfort that is necessary for them to learn. Participants also chose interesting learning spaces, such as a café and a pub. A possible explanation for choosing these spaces may, as Hunter and Cox (2014) posited, these students prefer background noise in the spaces in which they like to learn. Authors such as Cunningham and Walton (2015) speculated that the level of noise in an informal space can impact a student's choice of study space. In the instance of the participants in this study, it may be the case that students prefer background noise in their learning space so as not to feel alone or isolated as they were learning.

Keppell (2014) is of the view that the students have multiple learning spaces that can be virtual, physical or both. In today's world, students are more familiar with technology and with social media platforms. Indeed, Ellis and Goodyear (2016), identified that social media platforms, such as Facebook and WhatsApp, could be viewed as informal learning spaces. However, the findings of this study indicate that students did not see social media platforms such as WhatsApp as a learning space as several participants commented that this platform was mainly used for brief communication interactions such as the class times for the coming week or to check dates for submission of assignments. In reviewing the findings, it was evident that students preferred physical learning spaces, such as the library, the group project room, their office or a café, over virtual learning spaces, such as the VLE or social media applications like Facebook and WhatsApp.

### 5.3.2 Learning and engagement

Strange and Banning (2015) posited that the purpose of higher education is to have learning spaces that enable students to learn and to remember the purpose of that particular space. Pates and Summer (2016) suggested that HEIs need to consider how students use their learning spaces in particular for constructivist and social constructivist learning. This is important because students need to have a space where they are comfortable and at ease of learning to occur. Croxton (2014) and Picciano (2017) found that students can learn in a social context and to this extent this capture the social constructivist approach to learning, especially if students are comfortable interacting with their peers and motivated to build their own knowledge to solve problems in relation to their module. This might explain why students choose to use the group project room as one of their preferred informal learning spaces. Evan (2015) highlighted that higher education students are not passive learners, and new knowledge

occurs and is passed to others through networks. From the results of this study, it would seem that the learning theory of connectivism is also present in informal learning spaces such as the group project room and this is evident in the responses in this study where a number of participants highlighted they used the group project room to share knowledge with their peers and by engaging this process, inevitably new knowledge will be passed to others in the group.

## 5.4 Research question 3: To what extent do learning theories such as social constructivism and connectivism have a bearing on how students learn in a residential blended learning programme?

I identified three themes in the responses of participants in relation to this question. These were: learning, engagement and programme delivery.

### 5.4.1 Learning

As I analysed the responses in this study, it was evident that students utilised a variety of learning theories throughout their time on the programme. In this study, it was evident that a number of respondents highlighted a preference for a cognitive approach to learning. Beutelspacher and Stock (2011) posited that if a cognitive approach is utilised in relation to learning, then the learner is seen as an individual where they preferred to learn on their own. This was also evident in the learning spaces that cognitive learners in this study adopted, such as a home office, their hotel room, or in a library. These learning spaces provide the student with a space that enables them to advance their own thinking around a subject matter, which is very much in line with McAnaney et al. (2007) who are of the view that cognitive learners prefer to process and develop their own reasoning around information that they have been exposed to.

Deng and Travares (2015) stated that while learning has a cognitive element, there is also a social element that is often ignored by those teaching in HEIs as lecturers focus on the cognitive element of learning. Van Merriënboer and De Bruin (2014) posited that social constructivism theory is best suited to students in blended learning programmes as students use a mixture of tools and environments to learn and not just use the face-to-face classroom. Croxton (2014) and Picciano (2017) held that the social constructivist approach to learning is where the learning happens in a social context. As mentioned in the previous section, there was evidence of the social constructivist approach to learning in the findings of this study. Even though a social constructivist approach to learning can be viewed as a positive experience for

students, sometimes in this programme when a social constructivist approach to learning may not always provide a positive experience for students. This is evidenced when one participant noted that assigning group work tasks is all very well. However, students must be provided with a skill set to deal with group issues, especially in an online context. An explanation for this view may be that lecturers assume students know how to work in groups and/or that they are comfortable working in groups. Although these students come directly from industry, lecturers need to be cognisant that it takes time to form a group. As this is a blended learning programme in which students only spend three or four weeks on campus each semester, forming groups can be difficult for some students. Lecturers also need to know that some students may not already have the knowledge or ability to handle the conflict that may arise among members of a group when differing opinions arise. Time would need to be set aside to encourage students to form networks and relationships that may cause a positive group experience. The online platform also posed a problem for some students with working in a group. Some participants highlighted they were not comfortable with the online platform, which would pose problems when they were required to communicate and work in a group context. The nature and delivery of this programme means the programme can be seen as intense, therefore, the social element of learning can be important, especially when students are trying to cope with a heavy workload to successfully complete their programme. Therefore, some students in this programme may veer towards a social constructivist approach to learning because doing so enables students to form bonds with their peers while they are on and off campus. Students are comfortable learning and interacting with each other to solve problems and construct knowledge.

Nsofor et al. (2014) posited that learners taking part in blended learning programmes can interact, communicate, and problem-solve with other learners. Nonetheless, Croxton (2014) made an interesting observation that students who are participating in online learning may have the notion that there will be less interaction with their peers compared to in face-to-face on campus lecture sessions. The findings of this study support this view, as participants noted that sometimes there was a lack of engagement and communication between their peers and with their lecturer during the synchronous online sessions. Indeed, participants noted on numerous occasions that their individual engagement, communication, and engagement with the peers and lecturers was much higher when they were on campus. The learning theory of connectivism is also important to consider here because it is focused on learning that occurs through the networks that learners form with their peers and lecturers. Evans (2015) is of the

view that students can form networks, and this can lead to students forming a link between the content to further learning, which can then be shared with others in the network. There was evidence in the finding of this as participants commented students were encouraged to share stories with their lecturer and their peers and participants believed this was important, as it gave them an insight into how different companies approached problems and the solutions that they used. Some participants found this especially useful as they were in the initial stages of their profession, and they could implement some solutions posed in their workplace. The theory of connectivism was also evident in the group activities that are widely used throughout the programme.

### 5.4.2 Engagement

Researchers such as Vaughan (2010), Poon (2012), Downing et al. (2014) and Ryan et al. (2019) all highlighted the importance of student engagement in higher education as it can promote deep learning and critical thinking which is essential for students enrolled in this programme. Indeed, Manwaring et al. (2017) argued that one of the main goals of blended learning is to improve student engagement, and student engagement is the "holy grail" of learning. The perspective of Griffin (2014) is that there is a need to understand student engagement. Delialioğlu (2012) commented that in recent years, there has been a trend of dissatisfaction in relation to student engagement in higher education and Gray and DiLoreto (2018) have identified that there is a possibility that students can sometimes feel disconnected from their peers and lecturer. This is worrying because Tai et al. (2019) noted that HEIs need to entice students to their campus for financial reasons, and to do this, students must be engaged to successfully complete their programmes. deBorba et al. (2020) expressed that an important element of engagement in higher education is the interactions between students and their lecturers and those between students and their classmates. One way of encouraging engagement is through social engagement. Heffernan (2018) noted the importance of social engagement and seeking meaningful relationships with their lecturers. This can be especially important when students are off campus because they may experience isolation, which is clear in the findings of this study, where several participants highlighted they experience isolation when they were away from the campus.

Another approach to encourage engagement is to focus on the material that is delivered in lectures. Gray and DiLoreto (2018) found that the issue with engagement can be overcome if the student is provided with content that applies to what is currently happening in their industry or if students can connect the material that they are exposed to in a lecture session to what is happening in their workplace. Two participants highlighted in their responses that content delivered was sometimes outdated and, sometimes, the material was no longer relevant to what was happening in their industry. The students that enrol on this programme do so to further their careers, therefore, if students are exposed to material that they feel is no longer relevant for their future careers, they will tend to not engage with the material or lose interest in the module itself.

## 5.5 Research question 4: To what extent does institution policy on blended learning affect the acceptance of blended learning programmes within the Institute?

Three themes came to light during interviews with participants. These were: programme delivery, engagement and learning.

### 5.5.1 Programme delivery

The design of the blended learning programme itself also needs to be contemplated, especially because this programme is delivered both on and off campus. The delivery of the content in this programme can be quite intense for students because they are only on campus for a limited time per semester. Students are often timetabled for extended periods, with little time to reflect on the content they have been exposed to. As practitioners, we need to contemplate how we deliver our content. The participants in this programme preferred a blended learning programme because of its flexibility because of working full time with their family commitments and their proximity to the institute. Tshabalala et al. (2014) commented that blended learning programmes offer ease of access to students because of their flexible nature. Hilliard (2015) found that management needs to know that students require flexibility in blended learning programmes. However, the lack of flexibility could mean that students could be quite stressed during the programme and that this would mean that it would be difficult for them to engage with the material and learn. It could also result in some students leaving the programme because certain elements of the programme could be viewed as rigid and not suited to their personal circumstances.

Tshabalala et al. (2014) and Graham et al. (2013) are all of the opinion if blended learning is to be offered, there needs to be a blended learning policy. Lim et al. (2019) furthered the argument that there needs to be a holistic approach in relation to the delivery of a blended learning programme. Indeed, Lim et al. (2019) proposed a seven-dimension framework to enable HEIs to strategically plan for blended learning programmes. From my view as a practitioner, two dimensions are of importance when offering a blended learning programme similar to what was used in this study. The first focuses on the curriculum, which would include the resources that lecturers use, such as videos and slideshows. Bokolo et al. (2020) are of the view that blended learning enables a flexible approach to learning, delivery, and engagement. However, the pedagogical approach to delivering the material requires careful planning and implementation if students are to have the best possible learning experiences. The content itself, the recency of multimedia learning objects, and student accessibility all need to be planned and reviewed regularly because students expect to be exposed to the most up-to-date content.

Although it is important to provide students with programmes that are flexible concerning delivery, attention must also be focused on how to deliver the programme in such a way that content is delivered in a manner that meets the needs and skill requirements of students in the programme. In the findings in this study, participants noted that there were broken video links and outdated material, which caused these students to become frustrated. Hence, practitioners should be cognisant of the need to plan and review content, especially multimedia objects they are planning to use during the semester. Therefore, if institutes are planning on focusing on blended learning in the future, then it is imperative for them to have coherent plans in place in relation to curriculum, delivery, support, and resources within the institute. This may mean that financial resources need to be set aside for training in curriculum design and delivery to ensure students are provided with content that meets their learning needs.

### 5.5.2 Engagement

If a HEI is devising a blended learning policy there is a need to focus on the area of engagement, as Downing et al. (2014) has noted that HEIs are now placing more emphasis on student engagement as there is an increasing focus on ensuring that students critically engage with lecture material during their enrolment on higher education programmes. This has become more evident in recent years, as Manwarning et al. (2017) have commented that student engagement is now seen as the holy grail of learning. Ryan et al. (2019) identified behavioural, emotional, and cognitive elements in relation to engagement. The behavioural element of

engagement places an emphasis on student participation and the effort that students display during their time on the programme. Participants in this study highlighted that they had a positive engagement with their lecturers and their peers during the face-to-face lecture sessions. However, as noted earlier, a number of participants in this study brought attention to the issue that students felt they could not interact with their lecturer or peers during the online sessions. While, King and Arnold (2012) highlighted that one issue lecturers faced when delivering content online is the lack of a space in which to promote online discussion and collaboration, the VLE in the institution used in the study, has tools available to promote student engagement such as the chat function, group discussion rooms, student microphone facility and the use of voting/polling in relation to questions posed. The emotional aspect of engagement, as identified by Ryan et al. (2019) places an emphasis on students' interest and enjoyment during their programme. Strange and Banning (2015) stated that if an institution wants to promote successful learning, lecturers need to involve students in their own learning. In addition, deBorba (2020) has argued that one of the most essential elements of student engagement is the interaction between lecturers and their peers. In the responses from participants, it was evident that students enjoyed interacting with their lecturers and peers during the onsite lecturers, especially where students were encouraged to share their own experiences and stories from the workplace. However, from responses from participants, this was not clear in the online classes. This may be because students feel disconnected from their course, their peers, and their lecturer when they are online. Indeed, Gray and DiLoreto (2018) noted that students can sometimes feel disconnected from their peers and lecturers during online sessions.

When developing blended learning policies to encourage engagement learning spaces needs to be addressed. In this study, it was evident in the responses that students engaged in learning in both formal and informal learning spaces. When the students were attending the block sessions on campus, participants mentioned a variety of informal learning spaces they liked to use. Some of these learning spaces were individual, interestingly Vanichvatana (2020) and Cunningham and Walton (2015) commented that informal learning spaces provide students with the opportunity to engage with lecture material in a more meaningful manner.

Almarghai and Mijatovic (2017) are of the view that if student engagement is to be promoted, academic staff also need to be engaged. Lim et al.'s (2019) framework for strategic planning in relation to blended learning programmes identified professional development and infrastructure facilities as two elements that could be adopted when devising a strategic plan

for blended learning in an institute. In the instance of the HEI used in this study, it could implement continuous professional development programmes to promote an understanding of the importance of student engagement. Here, the focus could be on the importance of creating lecture material that is not only engaging but relevant to the student's industry, as students who take part in the specific programme are looking to enhance their knowledge and skills to further their careers. As mentioned by several participants in this study, the delivery of outdated content can be seen as an issue, especially from an engagement perspective. As mentioned earlier, Ryan et al. (2019) found that there are three types of engagement: behavioural, social, and cognitive. For these students to learn, they need to be engaged with the material on a deep level, as opposed to a surface level. Outdated material or material delivered ineffectively may mean that the student may find it difficult to engage with the material from a behavioural and cognitive perspective.

Lim et al.'s (2019) framework for strategic planning in relation to blended learning programmes identified that there is a need for a plan to be in place when offering a blended learning programme. There is an absence of a blended learning policy at present in the institute in this study, which may be associated with some issues that respondents raised in relation to the delivery of the programme.

### 5.5.3 Learning

Blended learning has been adopted in a limited capacity in the institute in this study, and the current blended learning approach enables lecturers to deliver content flexibly. However, Nsofar et al. (2014) noted that when planning and implementing a blended learning programme, it is important to consider the elements of Khan's Octagonal Framework, and in this thesis, the pedagogical perspective interests this practitioner. As students on this programme are all mature in age, how they learn can differ from conventional undergraduate students. To engage students in learning, practitioners need to use a variety of delivery strategies and not just solely rely on slideshows to deliver module content. Several participants highlighted that during the on-campus lectures, sometimes they were exposed to a large quantity of slides from a lecturer over a matter of hours. The nature of the delivery of the programme used in this study means that students are exposed to large quantities of information over a three-to-four-week period and therefore we, as practitioners, need to be cognisant of the danger of information overload. In this study, participants highlighted information overload and the exhaustion that they experienced. This would indicate that students would be too tired

during their on-campus sessions to reflect on the content that they have been exposed to. This is worrisome as students on this programme are expected to engage in deep thinking to become problem solvers in their future careers. Indeed, Coulson and Harvey (2013) are of the view that reflection is necessary for students to engage in deep level thinking and learning rather than surface learning during their time in their higher education programme.

In the context of the programme used in this study, the TIPS Model of Blended Learning may be a more useful model to consider, as there is an emphasis on adopting a more holistic approach to blended learning. While the pedagogical, technological, and institutional elements are addressed similar to Khan's Octagonal Framework, the social perspective is an important element to consider in the blended learning programme in this study as there is a mix of face to face, online and self-directed learning. The participants in this study highlighted the importance of the social element in group projects and the use of informal learning spaces that promoted social interaction. However, it was clear from the responses in this study, the social element was absent in the synchronous online lecture sessions, with several participants stating that they experience isolation from their peers and their lecturers during the online lectures.

## 5.6 Four elements of a blended learning framework

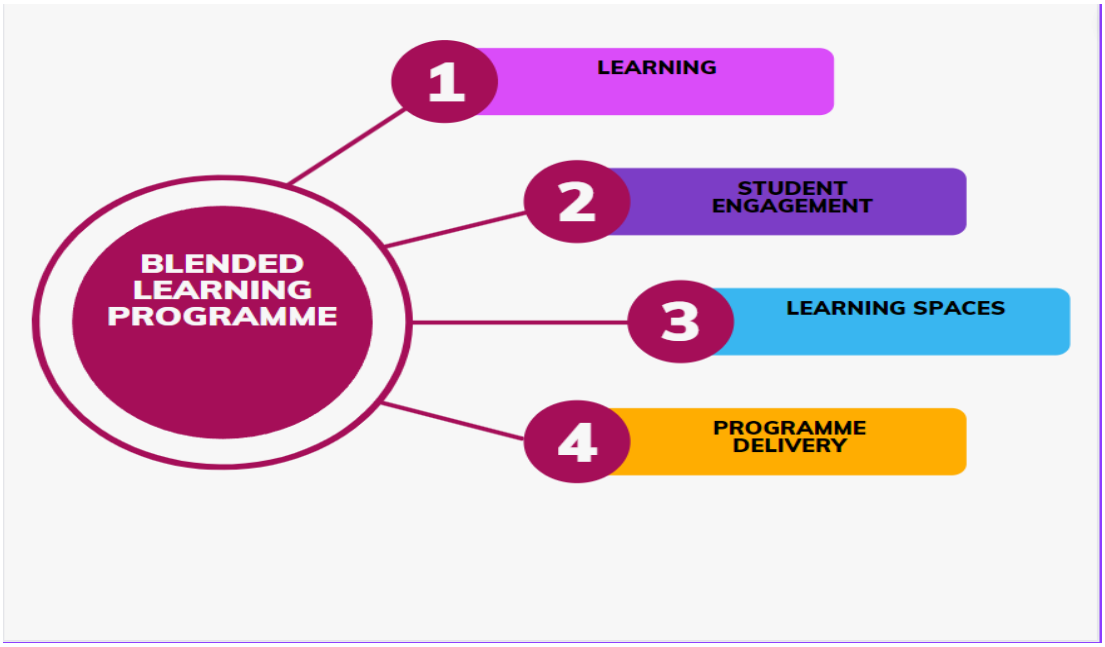


**Figure 5.1 Four Elements of a blended learning framework.**

From a practitioner's perspective, it is important to comprehend how our students learn in a blended learning programme. I devised the Four Elements of a Blended Learning Framework as depicted in Figure 5.1, which can assist practitioners in being cognisant of the factors that can impact students' experiences when enrolled in a blended learning programme. This framework could assist policymakers in devising blended learning policies in the future. Participants in the blended learning programme in this study were attracted to the programme because of its flexibility. Students are not required to be on campus on a full-time basis because these students work on a full-time basis while trying to earn their undergraduate qualifications. The learning element of this framework highlights the need to understand how students learn in blended learning programmes, like the one in this study. The participants in this study learn in diverse ways. Sometimes, students in this programme like to learn cognitively when they are by themselves. However, some participants preferred a more social way of learning as social constructivism, whereby students were provided with the opportunity to learn in a social and collaborative manner.

Although it is important to understand how students learn in a higher education programme, the data that I collected for this study would show that, how the programme content is delivered and the engagement of the student while on the programme also need to be taken into consideration by management in the institute where the study was undertaken, when developing blended learning programmes in the future. Student engagement can promote deep learning, which is a requirement for the blended learning programme in this study. The participants in this study highlighted the importance of engaging with lectures, their peers, and the module content itself while in the programme, which suggests that student engagement is an important consideration when offering a blended learning programme. The content itself and how it is delivered both in the physical and online classroom also needs to be considered, especially if students are hoping to use their lecture content in the workplace in the future.

The element of learning spaces also needs to be considered when offering a blended learning programme, especially in the institute in this study. Learning spaces can have a significant impact on student learning experiences while in higher education. If students prefer learning in group project rooms or their own spaces at home, then learning activities can be designed to take into consideration the student's preferred learning space. Participants in this study used both formal and informal learning spaces. However, some students prefer one particular learning space over another. This is very much dependent on how comfortable and

at ease the student feels in a particular learning space. As practitioners, we need to be aware of how and where students like to learn. This can be an important consideration when delivering content and when considering what learning activities to use.

The practical implementation of this model could be seen in the following example. Students on a blended learning programme are provided with a case study to identify issues that might occur during the interviewing of potential employees for an organisation. Each student is provided with the case study prior to the synchronous online session and has received an instruction to read the case study and make notes in relation to the issues that they have identified in the case study (**learning and engagement with material**) before joining the synchronous session. Once the student joins the synchronous session (**learning space**), they are then placed in breakout rooms (learning space) with clear instructions as to identify issues that they have identified in the case study. The lecturer joins the breakout rooms as different times during the session to encourage students to engage with the material and with each other (**learning**, **engagement and programme delivery**). The lecturer brings the students back into the main online lecture room and asks students to provide an outline of what they have discovered in their breakout groups and ends the session with a debrief (**learning and programme delivery).** All these four elements have vital parts to play when delivering a blended learning programme. As practitioners we need to focus on how students learn, how they engage with their material, where they like to learn and how we as practitioners can deliver programme material to enhance students learning and engagement.

## 5.7 Chapter Summary

The participants in this study used a variety of formal and informal learning spaces. Most participants noted that their preferred formal learning space was the classroom. However, participants noted several informal learning spaces, with some interesting spaces, such as the pub and the café. The findings of the study also identified a number of learning theories are utilised by students in this residential blended learning programme. Participants engaged in cognitive, constructivist, socio-constructivist and connectivist theories of learning. The learning space could be linked to the type of learning to take place, such as social constructivism in the group project room. The importance of having a blended learning policy was evident in this study. Design and delivery of module material were two issues that participants noted and these issues may have arisen because of a lack of blended learning policy in the institute that was used in this study.

# Chapter 6 Conclusion

## 6.1 Research Contributions

In recent times, there has been considerable focus on student learning and engagement. However, as O'Farell (2019) identified, when students are choosing a HEI to complete a degree programme, they are likely to research the quality learning experience they will probably encounter prior to enrolling in the programme. When the student is on the programme, they may evaluate every element of their educational experience when they are reviewing their overall learning experience. For me, as a practitioner, learning and the use of learning spaces play a significant part in the overall student experience in higher education. Therefore, I was always curious about how students learn and the learning spaces they like to use. My interest in this area increased when I read that Temple (2008) commented that there was a lack of research around the area of learning spaces. Although there are several diverse types of learning spaces available to students in the programme used in this study, Leijon (2016) noted that learning spaces can have a major impact on the students' overall learning experiences. To investigate this further, I focused on students enrolled in a specific blended learning programme in the institute where I work. This programme is aimed at those working full-time who want to undertake a blended learning programme to enable them to progress in their careers. Therefore, these students are working full-time and engaged in a demanding blended learning programme, which means there are many demands on their time. The aim of this study was to investigate the use of learning spaces within a residential blended learning programme. The research question focused on what impact do learning spaces have on students' experiences within a residential blended learning programme? Four sub-questions were developed: (1) how do students perceive their learning experiences in a formal blended learning environment, (2) how do students perceive their learning experiences in an informal blended learning environment, (3) to what extent do learning theories such as social constructivism and connectivism have a bearing on how students learn in a residential blended learning programme? and (4) to what extent does institution policy on blended learning influence the acceptance of blended learning programmes within the institute? In this concluding chapter, I attempt to bring together the main conclusions of each of the previous chapters. In addition, I would like to highlight how this piece of research can be of importance

to practitioners involved in teaching in blended learning programmes that mirror the programme in this study.

Over the last number of decades, blended learning has become a popular method of delivering higher education programmes. This is supported by Graham et al. (2014), who are of the view that blended learning, as a method of delivery, will become increasingly popular in the future. As recently as 2017 in Ireland, The Hunt Report (2017) identified the need for HEIs to move away from the traditional face-to-face delivery of lectures toward offering students a choice of delivery modes for a programme. Indeed, with the current pandemic in Ireland, we have seen HEIs having to change from traditional face-to-face delivery to a more blended approach whereby some modules may be delivered onsite while other modules are delivered solely or partially online because of COVID-19 restrictions. It remains to be seen whether institutes will continue to deliver lectures in a blended way after COVID-19 restrictions have been removed. As previously mentioned, although blended learning is growing exponentially in higher education both worldwide and in Ireland, there are different understandings of what blended learning actually is. The nature of blended learning in this study means that elements of the programme are delivered in a face-to-face manner using a variety of technological tools and activities. However, there is also an element delivered online through a VLE, and students are expected to take part synchronously and asynchronously. Therefore, from a practitioner perspective, it was important for me to understand how students learn in this type of blended learning programme. The rationale for this is that students who enrol in this type of programme have expectations, which will impact how they engage and their overall experience of the programme.

Poon (2013) noted that the student learning experience has become a critical issue for HEIs. King (2016) highlighted that an important element of any learning environment, be it traditional face-to-face or online classes, is the use of learning spaces. Therefore, I felt it was imperative to focus on learning spaces in this study. Goodyear (2016) and Leijon (2016) posited that the concept of learning spaces and how they are managed in higher education is, to date, very much under-researched. In higher education in Ireland, there is extraordinarily little academic research output in learning spaces, specifically in relation to blended learning programmes. Although there is a significant focus on learning and engagement in higher education, little attention was placed on how students use the different learning spaces around an institute for learning. This is surprising because Leijon (2016) suggested that learning spaces

can have a major impact on the student learning experience. As I was investigating the impact of learning spaces on students' experiences in a blended learning programme, I identified the formal and informal learning spaces that participants used on the programme and explored the impact of learning spaces on students' experiences. Montegomer (2008) identified that practitioners need to consider three crucial elements in relation to the use of space. From this study there are implication for technology designers in the institute and the blended learning management department to consider the students learning experience especially for the online element of the programme. A focus could be placed on ensuring that students feel comfortable with the online learning space. In relation to the physical learning space, designers could seek out new learning spaces in institute that could be used for collaborative or individual learning purposes. For example, in this study, students did not mention the canteen as a space that they would use for learning purposes. This may be due to the size of the room, the furniture in the room or the overall layout of the room that may not be conducive to group activities. Module leaders have a part to play in encouraging students to use multiple learning spaces while on campus and encouraging students to use online learning spaces such as social media platforms while the students are off campus to maintain learning and engagement throughout the semester.

As practitioners, we need to consider the student group, how students use their learning spaces and the learning space itself. The students in this study were mature students who were employed full time and attending a degree programme on a three-week residential basis with one module delivered completely online. Whether the student was onsite or online, they were exposed to a variety of delivery methods to encourage them to learn and engage with the material, such as role-playing, case studies, group work and quizzes. The most obvious learning spaces we are familiar with as practitioners are lecture/tutorial or laboratory rooms. The classroom would be viewed as a formal learning space, and the library, café and the group project room would be viewed as informal learning spaces. However, Brooks (2012) found that formal learning spaces, such as lecture rooms, can have a powerful impact on both teaching and learning in higher education. Hornsby and Osman (2014) commented that the traditional large style classrooms can lead to students not being able to develop higher-order cognitive abilities. The cohorts taking part in this programme would not have been categorised as a large class. However, participants in this study identified that their preferred formal learning space was the physical classroom, as opposed to the online classroom. It was interesting to see that the participants in this study preferred a variety of learning spaces outside the classroom. It was

also apparent that some students preferred a space that provided them with the opportunity to learn on their own, such as their own office or room at home. These learners may see themselves as cognitive learners where they prefer to learn individually.

However, some students prefer a learning space that provides an environment where they could engage in constructivism, social constructivism and connectivism theories of learning, and these spaces was the library or the group project rooms. Furthermore, it is also worth noting that some students preferred one learning space over another, depending on what they were attempting to learn. For example, for some theoretical content, some students preferred to learn on their own and adopt a more cognitive approach. However, if they were trying to learn content, that was numeracy based, some students preferred to learn in a social setting so that they could share their thoughts and understandings with their classmates. Sometimes, in the study, it was apparent that students adopted constructivist, social constructivist and connectivist approaches to learning. When students engaged in constructivist learning, they take on three specific roles, as identified by Perkins (2006). Learners take on the role of active learners and are encouraged to actively examine and discuss content. The students in this study could do this in the group project room, where they would have the opportunity to examine and discuss the material with their peers.

The second role that learners adopt is that of social learners. Learners participate in the learning process in social settings to construct knowledge. Theorists, such as Croxton (2014) and Picciano (2017) are of the opinion that social constructivist theory aims to view how learning occurs in a social setting and how students interact with each other to build knowledge and solve problems. The group project room is a learning space where students interact and engage with several peers. Several students used this learning space and approach to learning to build their knowledge and engage in problem-solving for projects and assignments. The last role learners adopt is that of creative learners. Students are encouraged to not be passive learners but actively construct or reconstruct knowledge as part of their learning process. Warner and Palmer (2015) are of the view that learning is moving from being instructor-led to being self-directed and student-led learning. This is important when HEIs want to promote critical thinking skills. The programme in this study aims to produce graduates with excellent critical thinking skills they can use in workplace situations. This requires students to be active learners and actively build and rebuild their knowledge as they progress through the programme.

Another theme that emerged from the data was student engagement, which needs to be considered when we, as practitioners, are focusing on student learning and the learning experience. Manwaring et al. (2017) alluded to student engagement as the "holy grail" of learning and has become one of the main goals for HEIs when offering blended learning programmes and can be linked to the overall student experience while on the programme. Downing et al. (2014) noted that HEIs are focusing on student engagement to promote deep learning whereby students engage critically with the material that they have been exposed to. Therefore, as practitioners, we need to be cognisant of what engages or causes students to disengage with content. Prior to collecting the data for this study, although I was acutely aware of the need to engage students in the physical classroom. After analysing the data, I became more aware of the need to engage students both in the physical and online platform. From the data that I analysed, it became apparent that students find it harder to engage with lecturers and their peers when they are on the VLE platform. Almarghani and Mijatovic (2017) are of the view that lecturers have a vital role to play in the student engagement process. To encourage engagement, de Borba et al. (2020) commented that there need to be opportunities for students to interact with their lecturers, as well as opportunities for students to engage with their peers. Indeed, Ryan et al. (2019) are of the opinion that the opportunity to interact with peers is important to student engagement from a socialisation, support, and social status perspective.

As evidenced in the findings, students often found it difficult to engage with their lecturer and peers during the online lectures. Some students note they felt uncomfortable asking questions during the online lectures. Some students expressed they found it easy to engage with each other while they were on campus. However, some students mentioned they experienced loneliness when they were off campus because they had no interactions with their peers. Additionally, some students felt less engaged when they were off campus than when they were on campus. This may be because they were not physically sitting in front of a lecturer or surrounded by their peers. These issues impact the overall student experience while on the programme. Part of the reason for which students may experience issues with engagement in a blended learning programme may be the delivery of the programme content, especially on the online platform. Students in the programme highlighted the importance of having up-to-date content, accessibility to the content on the VLE platform and the need for practitioners to be aware of the consequences of overloading students with module content both in the face-toface sessions and online. This could be addressed by introducing a blended learning policy that ensures the above issues are addressed. Indeed, Lim et al. (2019) noted there is often a lack

of implementation strategy in relation to blended learning in higher education. This is evidenced in the institute where this study was undertaken because it currently does not have a blended learning policy. Blended learning programmes, according to Bokolo et al. (2020) and Tshabalala et al. (2014), can provide students with a higher education experience that is accessible, flexible, engaging and student focused. Therefore, it would be worthwhile for an institute similar to the institute in this study to invest in devising a blended learning policy if there is currently no such policy in place.

The data for this study was collected using qualitative in-depth interviews. After undertaking a thematic analysis of the data for this study, four themes emerged from the data which are learning, programme delivery, engagement and learning spaces. As this study is focusing on the student experience during their residential blended learning programme, all of these elements have a significant impact on the student experience when enrolled on a residential blended learning programme similar to the programme that was used in this study. From these themes, I devised the Four Elements of Blended Learning Framework as shown in Figure 5.1 below, to enable practitioners to understand how these four elements can enhance the overall blended learning student experience. This diagram can also assist policymakers when developing and delivering blended learning programmes.

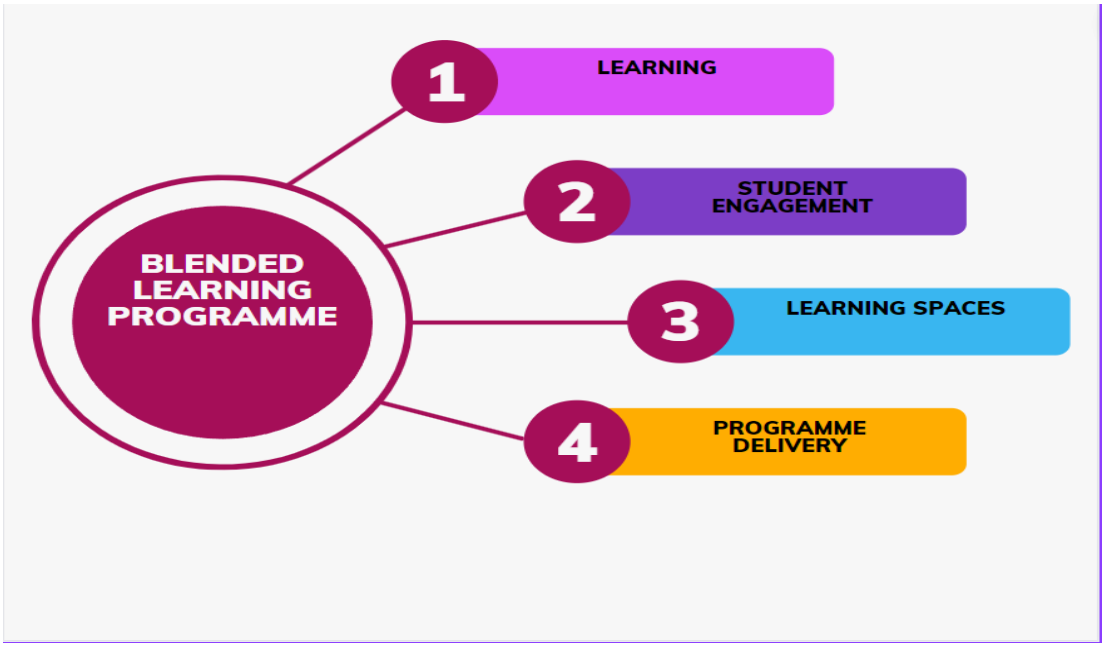


**Figure 5.1. Four Elements of a blended learning framework**

Figure 5.1 on the previous page highlights the four themes that emerged in this study. As practitioners and policymakers, we need to understand how students learn when they are enrolled in blended learning programmes that are like the one in this study. Understanding how students learn, their preference for particular learning spaces and the methods used to deliver the programme will impact how they engage with the material that is delivered to them. However, it should be noted that there may be challenges involved in introducing a blended learning policy. Lim et al. (2019) and Porter et al. (2016) identified three significant challenges that need to be addressed when implementing a blended learning policy. These include a lack of enthusiasm for blended learning by academic staff, increased workloads for academic staff and lack of necessary supports for academic and administrative staff to ensure the smooth delivery of blended learning programmes.

## 6.2 Study Limitations

This study has a few limitations. First, I am currently working in the institute where the research was undertaken. Although I did not lecture the students in the programme that was chosen for this study, I have certain assumptions and knowledge in relation to the institute because I have a dual role as a practitioner and researcher in this institute. Although Coghlan (2007) believed practitioners should not undertake research in their own institute, Chavez (2008) took the view that a practitioner's familiarity with the institute could put the respondents at ease, and this is something that external researchers may find difficult to do with participants who are strange to them and the institute. To ensure bias was not present in the study, I chose a blended learning programme I did not lecture in. I wanted to ensure my data collection was trustworthy, so I developed strategies around credibility, dependability, transferability, and confirmability. In addition, I felt that my insider role in this study resulted in me being able to build trust with my participants so that they felt comfortable providing me with answers to the questions that I posed to them.

Another limitation to the study was that only students in one specific blended learning programme within one institute in the Republic of Ireland were chosen for this study. The results may have varied if I extended the research to several HEIs in the Republic of Ireland and across a variety of blended learning programmes. A further limitation was the small sample size. I interviewed only 16 participants for this study. As mentioned earlier, these students were all enrolled in the same programme in one higher-level institute. Furthermore, I only had access

to students when they were on campus, which was only for three or four weeks per semester, depending on the stage of the programme. As previously mentioned, students in this programme cover a lot of material while they are on campus and, therefore, are timetabled for a considerable number of lectures when they are on campus.

## 6.3 Recommendations for Future Practice

Learning spaces and their impacts on student experiences is a topic that is very much under-researched in higher education in the Republic of Ireland. The advantage of this study for the institute in the study is that, since this research began, a dialogue has begun around why students are using particular learning spaces both on and off campus while enrolled in their blended learning programme. Although there is currently an absence of blended learning policy in the institute used in this study, by starting a dialogue around learning spaces both on and off campus, senior management may realise the importance of having a blended learning policy in place that focuses on not only programme delivery but also ensuring academic staff members are aware of the importance of learning spaces. To further the knowledge and understanding of learning spaces from an academic perspective, continued professional development workshops could be provided to academic staff members who are involved in delivering modules in blended learning programmes within the institute. As a practitioner in the institute, I would like to adopt the role of champion in the promotion of learning spaces to academic staff to make them aware of the learning spaces that students may use, both on and off campus, and how practitioners can devise learning activities around the learning spaces that students prefer to use.

If members of senior management are contemplating devising a blended learning policy in the institute, then the senior management should realise Lim et al.'s (2019) framework for the strategic planning of blended learning for HEIs, which includes seven dimensions that are essential to focus on when implementing a blended learning programme. Each dimension focused on an area that could support the implementation of blended learning in the institute where this study was undertaken. The Four Element Framework of Blended Learning that I identified in the findings of this study could also be considered because this framework places a significant focus on engagement and learning spaces in a higher education blended learning programme. Considerable time and money will have to be invested in devising and

implementing a blended learning programme in the institute, specifically in the areas of infrastructure, professional development, and student support.

## 6.4 Recommendations for Future Research

To identify future recommendations, I refer to the limitations of my study as mentioned previously. I conducted this study in one higher educational institute in Ireland. As there are currently a limited number of residential blended learning programmes in Ireland, future research could focus on the impact that learning spaces have on student experiences in blended learning programmes across several institutions in the Republic of Ireland. If an institution offers several blended learning programmes, a sample of respondents from each programme should be chosen to provide insight into their experiences from a variety of discipline programmes. A mixed-methods approach could provide a rounded picture of how learning spaces impact students' experiences while enrolled in blended learning programmes. Each research method has several strengths, which means researchers can view the data from different angles, which may cause the discovery of new knowledge that may be useful for practitioners in higher education.

## 6.5 Reflections on the Professional Doctorate

My doctoral journey has enabled me to take a breath and reflect on my status as a practitioner at my institute. Throughout the nine modules of my doctorate programme, my learning approach was both constructivist and socio-constructivist in nature and I found that my understanding of those modules was enriched through my engagement with the material to construct and deconstruct knowledge with the assistance of my peers. Being cognisant of how I undertook my learning while in the doctorate programme made me question how students learn in the blended learning programme offered in the institute in which I work. I would like my students to have the same learning experience that I encountered on my doctoral journey. As well as having adopting a constructivist and socio-constructivist approach to my learning, I used a variety of learning spaces to engage with the material and my peers. With this in mind, I focused on learning spaces because it is an under-researched topic in higher education in Ireland.

Initially, I questioned my thesis topic because I was unsure if it was a worthy doctoral thesis topic. My thesis topic has opened up conversations around learning spaces in my institute with my colleagues. Although Leijon (2016) alluded to the fact that learning spaces can have major impacts on student learning experiences prior to undertaking the dissertation journey, my colleagues were not aware of the importance of learning spaces, both on and off campus. My conversations with colleagues raised questions about how students perceive their learning spaces, learn and engage within the learning spaces they used during their programme. Therefore, it is my intention to become a champion of disseminating knowledge about learning spaces and the impact of learning spaces on student experiences while enrolled in blended learning programmes. I expect that this will occur through on-campus workshops. My dissertation journey has enabled me to develop a highly thorough approach to collecting qualitative data. I learnt to identify themes in my data and to critique the data that I had collected through in-depth interviews. Although my doctoral journey was extremely challenging, it has been emotionally rewarding. With the assistance of my tutors and doctoral supervisor, I have gained knowledge, critical thinking skills and research experience that will help me improve as a researcher and practitioner going forward.

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# Appendix A

**Authorisation Letter**

I, Valerie McGrath, am enrolled in the Doctor of Education (EdD) Programme at the

University of Liverpool in partnership with Laureate Education.

I entered the programme in order to develop doctoral-level depth of knowledge and research skills across areas in higher education such as higher education management, innovative approaches to educational leadership, decision making, as well as ethics, social responsibility, and social change. As an EdD student I am required, as part of this programme, to undertake research projects during the thesis stage.

In the context of my research in the EdD programme, I hereby request authorisation to access organisational data, facility use, and use of student time for research purposes relevant to my required assignments. This also includes authorisation to conduct an interview with students on blended learning programmes within the institute. The focus will be on the students learning spaces within the institute and its impact on their learning on the blended learning programme. I have included with this letter a Participant Information Sheet which outlines in greater detail the nature of the current research project I am required to complete for the EdD programme.

I appreciate the opportunity to engage in research involving my organisation. Please contact me and/or the Research Participant Advocate at the University of Liverpool with any question or concerns you may have.

**My contact details are:**

**valerie.mcgrath@online.liverpool.ac.uk**

**The contact details of the Research Participant Advocate at the University of Liverpool are**:

001-612-312-1210 (USA number)

Email address liverpoolethics@ohecampus.com

Sincerely,

Valerie McGrath

EdD student

**Title of Research Project:**

'An investigation of the connection between learning spaces and student learning experiences on blended learning courses in 'An investigation of the connection between learning spaces and student experiences on blended learning courses in a Higher Education Institute (HEI) in Ireland

**Researcher: Valerie McGrath**

**Please initial box**

1. I confirm that I have read and have understood the Participant Information Sheet dated [DATE] for the above study. I have had the opportunity to consider the information, ask questions, and have had these answered satisfactorily. ☐
2. I hereby grant permission to the researcher for all relevant data access, facility use, and use of personnel time for research purposes. ☐
3. I understand that, under the Data Protection Act, I can at any time ask for access to the information provided and I can also request the destruction of that information if I wish. ☐
4. I understand that information on the organisation will be anonymised, will be maintained as proprietary information, and will be kept in confidentiality. Additionally, I understand that no results of the research will be made publicly available without my specific approval. ☐

| | | |
|---|---|---|
| Name of Person Granting Permission | Date | Signature |
| (LEAVE BLANK) | (LEAVE BLANK) | (LEAVE BLANK) |
| Participant Name | Date | Signature |
| Valerie McGrath | | |
| Researcher | Date | Signature |

# Appendix B


**Committee on Research Ethics**

**Participant Information Sheet Guidelines (Thesis)**

As a student enrolled in a blended learning programme within the Institute you are being invited to participate in a research study. Before you decide whether to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and feel free to ask us if you would like more information or if there is anything that you do not understand. (***Thank you for reading this.)***

I am in the process of undertaking research as part of my thesis for my doctorate programme. As part of this stage, I am required to undertake interviews in relation to the use of learning spaces within blended learning programmes within the organisation.

As part of my research I am required to interview students within the organisation who are enrolled in the blended learning programmes in the organisation.

**Participant criteria**

To take part in this particular study the participant should:

1. Be a student of the institute

2. Be currently enrolled in a blended learning programme

Please note that as I am a member of staff with the Institute that any students that I am currently lecturing or students that I have lectured in the past will not be permitted to take part in the study. This is to ensue reliability and validity of the research data. However, in the event that I will be your lecturer in the future, please note that your academic performance will be in no way impacted by your participation in this study.

However, in the event that I will be your lecturer in the future, please note that your academic performance will be in no way impacted by your participation in this study.

**Do I have to take part in the study.**

No, you participation in the study is completely voluntary. You are not obliged to take part. If you choose not to take part in the interview or continue with the interview you do not have to give a reason why.

**What will happen if I take part?**

The interview will be a one-to-one interview that I will conduct with you. I will use an audio recorder during the interview. The duration of the interview will be between thirty minutes. All interviews will take place on campus during the weeks that you will be attending your module lectures. If this does not suit, a Skype interview can be arranged to suit your
availability.

You have the right at any time during the interview to decline to answer any question asked or discontinue participation in the interview at any time without your rights being affected.

Please note that as I am a member of staff with the Institute that any students that I am currently lecturing or students that I have lectured in the past will not be permitted to take part in the study. This is to ensue reliability and validity of the research data.

**Are there any risks in taking part?**

During the interview you may be asked to provide examples that may relate to your organisation. While you remain anonymous in the recording of the data the examples may be used at a later stage in the research. However, the name of your organisation will not be disclosed when the examples are used.

**Are there any benefits in taking part?**

This interview may provide you time to reflect your learning and learning spaces that you interact with as part of your blended learning programme. This may benefit you in the future as you continue on your blended learning programme.

In addition to this to compensate you for your time, you will receive a €30 gift voucher for participating in the study

**What if I am unhappy or if there is a problem?**

If you are unhappy, or if there is a problem, please feel free to contact Research Governance Officer at ethics@liv.ac.uk. When contacting the Research Governance Officer, please provide details of the name or description of the study (so that it can be identified), the researcher(s) involved, and the details of the complaint you wish to make.

**Will my participation be kept confidential?**

An audio recorder will be used during the interview. However, I will be the only person to listen and transcribe the interview. The data from the interview will be save in a secure location on my laptop and the file will be password protected. The data will be stored for five years. Your name and the name of your company will not be revealed in the research and a coding will be applied to your section of the research.

**What will happen to the results of the study?**

The results of the study will be used for the thesis. Please note that you will not be identified in the assignment.

**Who can I contact if I have further questions?**

Should you have any questions in relation to the research please contact **valerie.mcgrath@online.liverpool.ac.uk** or contact the research participant advocate liverpoolethics@liverpool-online.com

## Appendix C

**PARTICIPANT CONSENT FORM**

**Title of Research Project:**

'An investigation of the connection between learning spaces and student learning experiences on blended learning courses in 'An investigation of the connection between learning spaces and student experiences on blended learning courses in a Higher Education Institute (HEI) in Ireland

**Researcher: Valerie McGrath**

**Please initial box**

I confirm that I have read and have understood the Participant Information Sheet ☐ dated _____ for the above study. I have had the opportunity to consider the information, ask questions, and have had these answered satisfactorily.

I understand that my participation is voluntary and that I am free to withdraw at ☐ any time without giving any reason, without my rights being affected.

I understand that, under the Data Protection Act, I can at any time ask for access to ☐ the information I provide. I understand that the destruction of the data will not be possible once the data has been analysed.

I give my consent to the dissemination of the study ☐

I agree to take part in the above study. ☐

_____ _____

_____ Participant Name Date

Signature

_____ _____ _____

Name of Person taking consent Date Signature

_____ _____ _____

Researcher Date Signature

**The contact details of lead Researcher (Principal Investigator) are:**

**valerie.mcgrath@online.liverpool.ac.uk**