Student perspectives on the relationship between assessment methods and retention of learning in higher education.

Doctorate in Education

Institute of Education

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November 2019

Acknowledgements

I would like to thank my supervisor, Professor Carol Fuller, for her unfailing support and encouragement throughout this journey, for her incredible wisdom, guidance and inspiring attitude to life and work. Thank you to my husband, Puneet, for being my backbone in all my ambitions. Thank you to Rishi, my son, for understanding at bedtime that mama had to go back downstairs to "work a bit more" and for teaching me about growth mind-sets. Thank you to Shivani, my daughter, for blowing so, so many dandelions to help mama finish her doctorate. Thank you to Zabin, my colleague and dear friend, for accompanying me on this journey every single step on the way. And thank you to all my family and friends for listening whenever I needed to talk about this journey.

Finally, my sincere gratitude to the students and colleagues who gave their time so willingly and who provided me with their views, which helped form a better understanding of learning and knowledge retention. Without you, this thesis would not have been possible.

Declaration of original authorship

I confirm that this is my own work and the use of all material from other sources has been properly and fully acknowledged.

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Declaration of proofreading

The final draft of this thesis has been proofread for spelling and grammatical errors by Sarah Davies.

Abstract

Over the last two decades, higher education in the UK has gone through significant changes. With the implementation of the Teaching Excellence Framework and accreditation by the Higher Education Academy, there have been higher levels of accountability towards course development underpinned by researched pedagogy. Better understanding of the influences of the learning environment and the links between assessments and student's approaches to learning has led to academics being more innovative in their methods of education and has seen them adopt a more student-centred approach.

Although in higher education circles the importance of building soft skills, like critical thinking, are being underlined; employers are asking for graduates to also recall and demonstrate the professional knowledge and understanding they gained during their studies.

With an interest to gain an insight into what learning approach might be lined to retention of knowledge, this thesis examines the student perception of different assessment methods and the factors that may influence surface and deeper learning from their point of view. Using an embedded mixed methods design, the study has considered student analytics of attainment and engagement data for three different assessments: an exam, an essay and a phased assessment for a cohort of 105 students over a two-year period. These were compared with the results of an assessment experience questionnaire and interviews with students and lecturers. The research took place at a modern University in London.

The findings demonstrated that students want active classrooms with tutors who challenge their learning in a creative way using stories, case studies and assessment strategies which can be linked to their future learning skills and application to industry. Such learning, teaching and assessment strategies will help the student embed this learning into their longer-term memory.

In response to the findings, the study offers a way to design and deliver curriculum and assessment methods to maximise student learning and retention of learning, in particular considering those students who have lesser engagement opportunities. The concept of "LAAAM" provides a framework to integrate these findings and act upon them, creating a platform which should stimulate a deep learning approach by students and help them retain the knowledge gained from their learning.

Table of Contents

List of Figures

List of Tables

CHAPTER 1: Introduction

1.1 My Background

All research is influenced by the researchers own values and belief systems. As this current study has been developed and grown during the researchers' life, I believe it is important to discuss my background prior to this study to situate it in its context. Before taking on the post of lecturer at the University at which this research has been undertaken, I had worked in the hospitality and corporate industry for 15 years. Whilst working, I studied in the Netherlands, USA and the UK. I also worked in Belgium and France. Looking back, I mostly adopted a strategic approach to learning, doing enough to pass assessments but, as I was also committed to full time work, not often going beyond this surface level of knowledge attainment. When I started out as a lecturer, part of the position requirement was to complete a post graduate certificate in higher education. I took on module leadership of a particular challenging module which was delivered in just seven weeks to students mostly from India who had completed a degree in their home country. This module formed part of their "*graduate certificate in hospitality management"* course which had a duration of one academic year and which included a placement within the UK leisure industries. After successful completion of the graduate certificate program, students would be able to progress onto a post graduate course in hospitality management. The course was delivered during a period which saw a significant peak of international student recruitment across British higher education institutions (UKCISA, 2010), with 31% of post graduate students in hospitality management coming from abroad and the second largest group coming from India. At the time of taking on module leadership, the course had a failure rate of 60%. As I myself had lived in five different countries and had had to adapt to new education systems, I could only imagine how hard it would be for them to move from an "exam" based education system to our level 7 essay writing. Research that I conducted at the time, confirmed these ideas. Barron and Arcodia (2002) and Sulkoski and Deakan (2010) are examples of the studies I reviewed at the time, with both confirming through their studies that students who come from a different cultural educational background to those who have studied through the British educational system are at a significant disadvantage when commencing post graduate studies. These disadvantages are reflected in the achievement gap between the two groups and it was therefore suggested at the time by Airey and Bennett (2007) and Huang (2005) that teachers adapt their teaching strategies and communication style to meet the needs of students from different educational backgrounds. With this in mind, I started reading a lot about different learning teaching and assessment strategies and came across Gibbs (2010) manual on learning through assessment. It was this that formed the foundation of my "Blended Learning for Assessment and Employability Skills (BLPAS) framework (Kanuga, 2011).

1.2 The Development of the BLPAS Framework: A framework on which to build

The students I was concerned with at the time were failing their assessments. Gibbs (2010) identified ten pedagogic principles which he argued should be the foundation of an assessment strategy and which would support learning. Table 1 shows a summary of these pedagogic principles and a summary of their meaning and argument as I understood it (Kanuga, 2015). As a student, contact in higher education is often limited to 3 or 4 hours per module per week. As this particular group of students had the additional challenges of a very short semester of seven weeks and the disadvantage of coming from a different educational system, I decided to create a blended learning approach where students could complete tasks and receive feedback online, and through this method receive more tutor support and time. Salmon's (2005) five-stage approach to online learning and teaching was therefore the second prominent influencer of the BLPAS framework. Salmon's model (2005) originates from online group work and was a method for students to learn through peer engagement. Her model was unique in that it had progressive stages of learning. Appendix J illustrates the first draft strategy of the BLPAS framework, using the model of progressive learning whilst considering the assessment principles of Gibbs (2010). The blended phased assessment strategy meant students were able to learn both in class and online and complete their assessments through incremental learning and skills development.

Table 1: Pedagogic Principles Underlying the Use of Assessment to Support Learning (Inspired by Gibbs, 2010, pg 8-19)

Pedagogic principles (Gibbs)	**Summary of meaning and argument (Kanuga)**
1. There should be sufficient assessed tasks to capture sufficient student study time.	- "Time on Task" principle (Chickering and Gamsong, 1987) - UK students spend less than 5% of time on unassessed study tasks (Arbough et al, 2010)
2. Assessment demands should be designed so as to orient students to distribute appropriate amounts of time and effort across all the important aspects of the course.	- Frequent assignments distribute student effort and learning across the course on weekly basis. - Infrequent assignments may result in intensive studying for a week with evidence of lack of knowledge retention.
3. Tackling the assessed task engages students in productive learning activity of an appropriate kind.	- Set assessment tasks which create appropriate learning as a by-product.

4. Assessment should communicate clear and high standards.	- Assessments which appear challenging are more likely to lead to deep approach of study than surface approach. - Students need to see exemplars of work of different standards instead of a list of criteria.
5. Sufficient feedback needs to be provided, both often enough and in enough detail.	- Feedback needs to be regular, on small chunks to enable learning, - Has to be quite specific to be useful.
6. Feedback should focus on students' performance on their learning and on actions under the students' control, rather than the students themselves and on their characteristics.	- Focus on personal characteristics (you are hopeless) effects students' self-efficacy - Self-efficacy is related to deep approach to learning.
7. Feedback should be timely: received by students while it still matters to them and in time for them to pay attention to further learning or receive further assistance.	- Immediate feedback at each stage of a student's progress improves student performance.
8. Feedback should be appropriate in relation to students' understanding of what they are supposed to be doing.	- Students' conceptions of tasks - Students' conceptions of learning. - Students' conception of knowledge - Students' conception of the discourse of the discipline.
9. Feedback needs to be received and attended to.	- Ask student to specify where they want feedback on, on assessment. - Don't provide grade until feedback has been received. - Formative feedback before summative assessment.
10. Feedback should be provided in such a way that students act on it and change their future studying.	- Teach students to monitor on performance. - Gaining control over own learning enables "meta-cognition".

The first results of this framework were promising with attendance and engagement increasing as well as overall grades. Out of a cohort of 48 students, 90% passed their seven-week module, which was a significant increase on the previous year which had a 40% pass rate. Findings of this pragmatic pilot research were published at the ED-Media conference in Lisbon (Kanuga and Visram, 2011).

Following these positive results, I was asked to lead on a large and challenging module which was delivered to 350 students completing a degree in either hospitality management, tourism management, aviation management or events management. These students were all required to complete a level 5

module which started in September at the start of their second year of studies and was completed 18 months later, a period which included a one year work placement. The theoretical side of the module, delivered in the autumn term, was taught by a team of 10 hourly paid lecturers and had a lower than average attendance rate of 68%. The original method of assessment for the theory part of this module was an essay and had a median grade of 49. Although the BLPAS framework was initially developed with the international student in mind and the limitations of a seven week delivery schedule, I believed that the combination of the phased assessment and blended learning approach, could help improve learning engagement for the large level five cohort too. I developed the framework further and absorbed the five stages by five different learning and teaching environments which can be seen in figure 1.

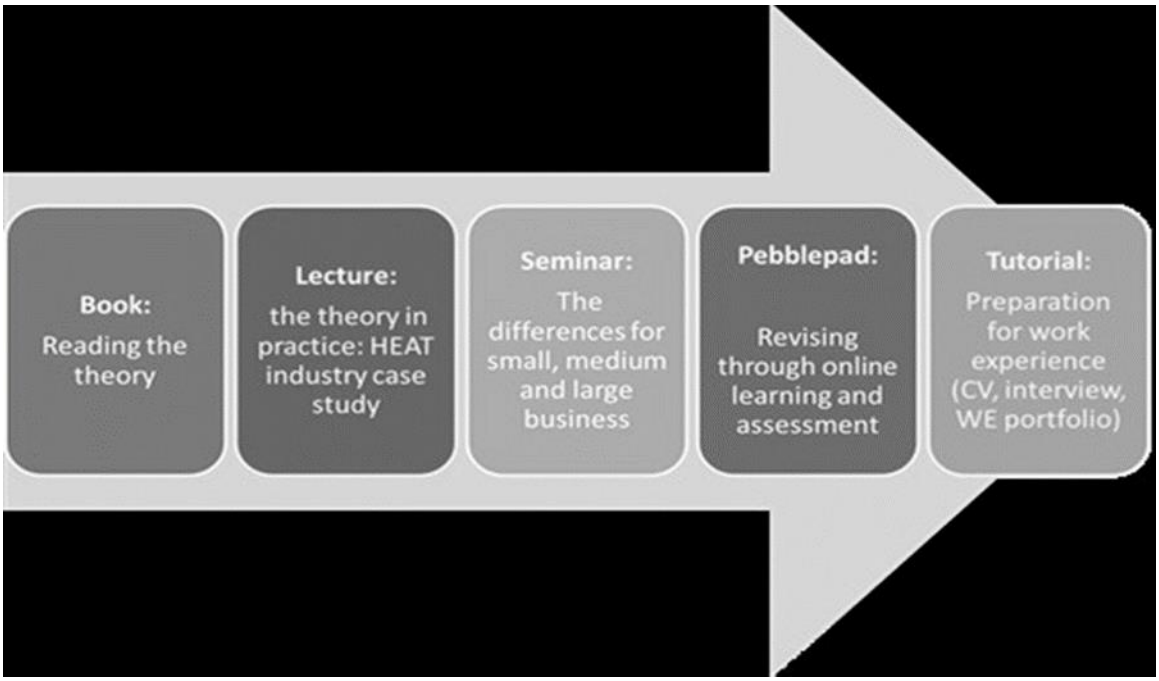


Figure 1: The Adapted BLPAS Framework

I believed that this structure would help the learner engage with the material through different methods and as with the pilot the assessment was phased. The student received verbal and online feedback on a weekly basis, encouraging incremental learning. The results were positive for this cohort, with a submission rate of 98% and a median grade improvement to 58. Overall, as with the initial study, engagement, attendance and marks were positively affected, and the statistical results were published as a chapter paper in the Pebblebash book (Kanuga, 2012).

1.3 The TESTA Framework and BLPAS Reflections

Gibbs and Dubar-Goddett undertook their study on the effect of assessment environments on student learning in 2007. Their extensive piece of work included nine different numerical data sets on

assessments from 9 different courses from three different institutions. They developed a version of the Assessment Experience Questionnaire (AEQ) which was capable of measuring students' learning response to programme-level assessment environments and distinguishing between programmes, between disciplines and between institution and which examined 516 students. The results of this study demonstrated the differences in assessment practices across courses and how the different patterns of assessment can be associated with different student learning responses. Gibbs and Dubar-Goddett argued that from this study it is possible to identify which characteristics of assessment environments are associated with positive or negative learning responses. Jessop et al, continued to build on their research with the "Transforming the Experience of Students through Assessment (TESTA) Framework" (2014), funded by the Higher Education Academy. Using an adapted version of the 2007 AEQ, 23 degree programmes in eight universities were audited and showed wide variations in assessment patterns and feedback. In this study the team went further than the quantitative methods previously employed. This time they held focus groups and analysed the combined data which revealed consistency in the characteristics of assessment and student learning responses. This study further demonstrated an interesting and fundamental importance between quantity and quality of feedback. Their study indicated that when students have a clear understanding of what is expected of them this has a direct impact on their overall satisfaction. Students indicated that often the feedback was not helpful as these (marking) standards were not clear and seem to vary in different modules.

Their research could potentially form the foundation of course assessment practices of the future and within future updates of the Teaching Excellence Framework.

Although Gibbs et al.'s research gives us a good, grounded idea of students motivations around assessments it is still unclear which type of assessment encourages a deeper learning approach and what the actual student experience is of different types of assessments when considering the links between deeper learning and knowledge retention.

Six months after completing the theoretical part of the module I taught, I visited students on their industry placements. We discussed whether they were able to apply what they had learned thus far in their course in the workplace. It was through these conversations that I realised students' engagement with a module and their approach to learning for an assessment might have an influence on how much of the theoretical knowledge they retain after completion of the module and how much of this they can then apply to their future positions in industry.

What is important to note is that the model has shown to be successful when comparing academic results, student engagement and attendance before and after the implementation (Kanuga and Visram, 2011; Kanuga, 2012). What is unclear, however, is the extent to which the framework encourages deeper

learning and its impact on knowledge retention 2 years after completing the module, when the student has completed their course and is about to embark on their career. And how does this method of assessment compare with other assessment strategies? This research will help further develop this framework to encourage deeper learning and knowledge retention of the theories explored in a module.

1.4 Focus of the Study

1.4.1 Higher Education and the idea of "knowledge".

The core business of universities is to create, manage and transfer knowledge (Kubbler and Tarrant, 2008) In the context of Higher Education; assessment refers to the coursework, exams and any other form of process that "appraise and individuals knowledge, understanding, abilities or skills" (QAA, 2011, p.1). Laurillard (1979) argued that it is common knowledge that we learn better when we enjoy what we are learning. Yet she also asked if students are enjoying it because they are learning better and called for research on the cause and effect relationship. The influence of assessment on student learning has been documented for more than 40 years. Two different studies in the 1970s concluded that the way students approach their studies is by considering the assessment procedures (Miller and Parlett, 1974; Marton and Wenestam, 1978). This trend seems to have continued. A student in a study by Gibbs (1992) pointed out that when a student is under a lot of pressure, the focus is on passing an exam rather than understanding the actual subject. A study conducted by Conway et al. (1992) measured student retention of knowledge psychology 13 years after completing their degree course. They found that knowledge and understanding was retained on those elements of the course that included essay type assignments; whereas the knowledge tested through exams was lost. In addition, there is evidence that the quality of learning is greater with assignments (Cox, 2009; Reedy and Mordaunt, 2010). Evidence suggests that students achieve better marks and, therefore, a higher degree classification through coursework rather than traditional examinations (Hatzipanagos, 2010). Coursework also seems to lead to longer-term learning, with various studies revealing that the quality of learning improves through (essay) papers in comparison to exam revision (Peelo et al., 2002; Rushton et al, 2010).

In the UK, even before the announcements of the TEF, we have seen increased attention being paid to student-centred teaching approaches within higher education circles; focusing on self-directed and active learning, emphasising critical evaluation, problem solving skills, a deeper learning approach with the focus on self-directed active learning (Kim and Davies 2014). There is evidence that graduate outcomes are better achieved, and students' confidence is increased, in addition to greater understanding

of subject, in a student-centred approach (Kim and Davies 2014). As the literature review will demonstrate; The BLPAS framework is just one example of the many initiatives taken by academics, researchers, learning technologist and educational developers to improve assessment and learning both at a strategic and practice level (Gravenstock and O'Connor, 2005).

Even though Higher Education is clearly involved and dedicated to improving assessment practices and stimulate learning; employers argue that they cannot find skilled workers and that graduates often lack the actual knowledge required within their subject area (Levy and Rodkin, 2015; Kirton, 2015). As student learning has arguably become focused on passing assessments (Peelo et al., 2002; Light et al., 2009), course content that is not assessed directly is perhaps neglected. Students take a surface approach to learning and therefore, students gain only superficial knowledge of the core theory (Yorke, 2001; Anderson, 2010). With performance targets, inspired by the REF and TEF firmly in place, universities now measure assessment success (grades), quality of teaching and student satisfaction. What is missed though is the awareness and perhaps opportunity of deeper learning which is linked to knowledge retention (Mavodza and Ngulube, 2011). Therefore, the question is, once a student has passed an assessment and a module, how much of that knowledge is retained? If a student completes a course specific module for example, a module on marketing in a business degree, at the start of their second year, how much of this knowledge is retained by the time they graduate? These questions form the focus of this study, which are specifically outlined in the next section.

1.4.2 Conceptual Framework

As suggested by several researchers of the social sciences, identifying a conceptual framework, or travel path, at an early stage in research, helps the reader understand the focus of the study and its contribution to knowledge (Grant and Asanloo, 2014; Imenda, 2014; Akintoya, 2015). It should resonate with every aspect of the research, from the identification of the problem through the conclusions drawn (Adem, Hussein and Agyem, 2018). Imenda (2014) argues that without a theoretical or conceptual framework at an early stage, a study will lack direction to the search of appropriate literature and discussion of the findings.

The diagram below represents the focus of this study based on studies conducted in the past as discussed above, with the research questions considering the unique context of the case study as well as the current academic climate.

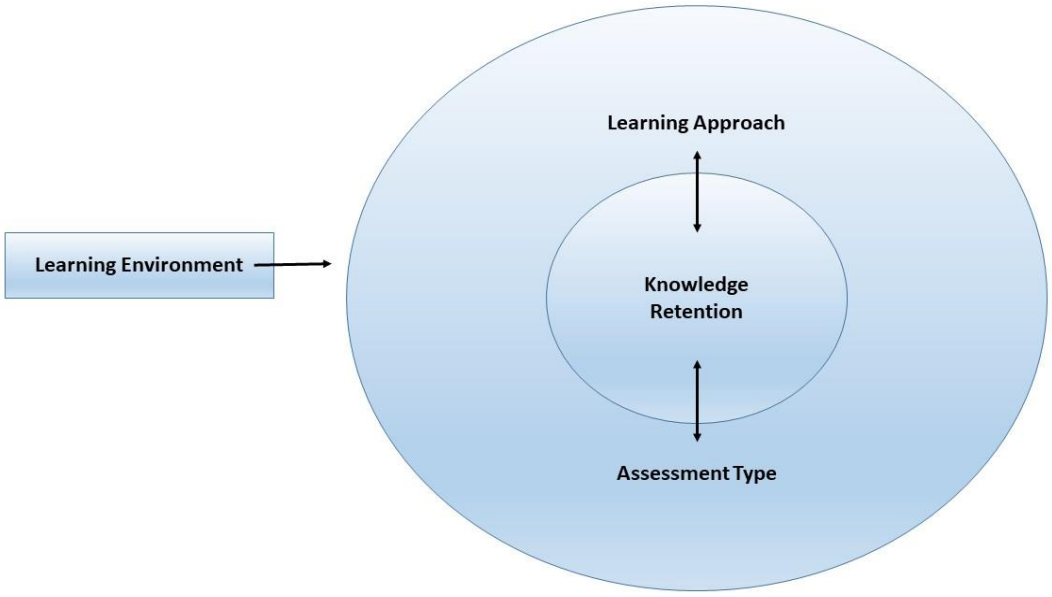


Figure 2: Conceptual Framework of Learning and Knowledge Retention

The research question is as follows:

What are student perspectives on the relationship between assessment methods and retention of learning in higher education?

Sub-questions are:

1. Are there significant differences in assessment results, in terms of attainment, for different assessment types from the students' perspective?

2. Do academics attempt to provide deep learning and knowledge retention through different assessment strategies from the students' perspective?

3. Which learning approach do students take to completing different assessments and how does this potentially affect knowledge retention from the students' perspective?

4. To what extent do different assessment strategies (exams, essay or BLPAS) encourage long term knowledge retention from the students' perspective?

To answer these questions, this research first reviews the current literature on different assessment practices in UK higher education institutions and existing data and theories which link these assessments to the concepts of surface and deeper learning. Using a mixed-methods approach it then compares the attainment and engagement results of 3 different assessment strategies from 3 different modules at point of completion and then 4 months later and compares these results with data obtained from an adapted assessment experience questionnaire (AEQ), student interviews and lecturer focus groups.

1.5 The Context of the Study

This study took place in one of eight schools in a London based modern University. The University is spread over two sites, both within a short distance of each other, in the west of London. During the time of this study, the Universities ranking improved by nearly 40 points towards the low 80's before dropping again ten points in the last year of this study (The complete university guide 2019). The modern University is spread across two sides in London and has roots back to 1860, although it did not become a University until 1992. It offers nearly 200 undergraduate and just above 100 postgraduate courses. The average UCAS tariff score of students entering the University is 116 with 74/100 graduating with a good honours and a student/staff ration of 14.8. Student satisfaction is high at 4 points out of 5 (The complete university guide, 2019). At the time of this study the college in which this study took place has gone through multiple changes which include the appointment of a completely new lecturing team, two Dean and two subject head changes, restructuring and revalidation of all courses and a college name change. The college is not alone in going through a period of change, nor is the University. In 2014 the Research Excellence Framework (REF) replaced the research assessment exercise which resulted in the case university adapting their business strategy with a focus on research outputs. The REF process was originally designed to secure evidence-based distribution of resource yet has arguably succumbed to an obsession with institutional competition and ranking. One year later the government announced an additional change to higher education with the introduction of the Teaching Excellence Framework (TEF). The TEF is in addition to the metric quality assurance process which focuses on observing, reflecting and improving our teaching (Office for National Statistics, 2016). In 2017 the first TEF results were published and classified Universities and Higher Education institution in the categories of Bronze, Silver and Gold of Teaching Excellence. It is clear that since putting a consumer price on education, the government has turned to market solutions of performance reports to help institutions justify their fees and to help the consumers make informed choices. The results show the lesser known universities ranking at the top in areas like "employability" (TEF, 2017). The question is however what the impact of the REF

and TEF is on the actual learning teaching and assessment strategies of individual lecturers and how they influence the students' learning experience.

1.6 Chapter Summary

In 2002, the Quality Assurance Agency (QAA) set out an approach to improve quality in higher education with the focus on learning outcomes and their assessment and the role of external examiners when considering the specifications of these standards. As such, to meet QAA criteria, institutions focused on aligning learning outcomes with assessment and specifying the criteria around this. Assessment became a measurement tool (Gibbs and Simpson, 2004). To succeed in such a system, learners are arguably forced to adopt a rote learning strategy (Biggs and Tang, 2007), potentially at the cost of a deeper approach to learning. One of the targets of the Teaching Excellence Framework (TEF), which was introduced by the Government late 2015, is to ensure that all students receive an excellent teaching experience that encourages original thinking, drives up engagement and prepares them for the world of work (TEF, 2017). Many studies have shown that today's student is often a strategic learner, focusing on learning for assessment (Gibbs and Dunbar-Goddett, 2007; Barnett, 2011, Adams and McNab, 2012, Jessop et al., 2013). Much of the current literature focuses on developing assessments for learning and the student experience. What is unknown though is how much these assessments affect the retention of learning, or long-term knowledge retention. This research aimed to get an insight into how much of the learning through assessment is retained after a learning interval of 24 months from the student perspective in that it may be applied to their work environment when their course has been completed.

1.7 Definitions of Key Terms

The below terms are given for reference when considering the research questions. These terms will be further discussed in the literature review.

1. Surface Learning Approach: The learner selects and prioritises what they need to learn. These students are also known as 'strategic' learners. Low level of cognitive development tends to be involved (Gibbs, 1992; Savin-Baden, 2000; Lindblom-Ylanne, 2006; Biggs and Tang, 2007)
2. Deep Learning Approach: The learner attempts to relate ideas together to understand underpinning theory and concepts, and to make meaning out of material under consideration (Fry, Ketteridge and Marshall, 2003).
3. Retention Interval: The length of time between when the original learning is completed and when the retention of that learning is assessed (Bacon and Stewart, 2006).

4. Knowledge Retention: The amount of knowledge that is retained after a retention interval (Bacon and Stewart, 2006).
5. Assessment Experience Questionnaire (AEQ): A questionnaire which measures the extent to which assessment is experienced by students as meeting the conditions under which assessment supports learning (Gibbs and Simpson, 2004).

1.8 Thesis Outline

This chapter has outlined the aim of this research stemming from both a personal academic journey and the current academic landscape in higher education. The next chapter will continue with a review of the current literature in line with the conceptual framework offered in this chapter. The methodology chapter will discuss the methods of primary data collected for this study and the findings of these will be discussed in chapter four. Chapter five will discuss the answers to the research question through an analysis of the findings of the primary data collection in line with the conceptual framework. The final chapter will discuss my conclusions in line with the aim of this research and will argue, with limitations of the research carefully considered, its contribution to knowledge in the field of higher education.

CHAPTER 2: Literature Review

2.1 Introduction to the chapter: the Current Environment

This chapter will follow the outline of the conceptual framework introduced in the introduction. It will review the history of assessments and the current methods of assessment in higher education. Students learning approaches and how this might be influenced by their assessments will be reviewed along with the wider learning environment. Finally, the current literature on what is known about knowledge retention when linked to learning approaches and assessment methods will be discussed with a further consideration of the learning environment.

Traditionally only available to those from more privileged social backgrounds (Hosskins, 1999), in 2018 Higher Education includes a mixed population of students from diverse backgrounds: different ethnicities, different social classes, different age groups and a female population of 62% (The Universities and Colleges Admissions Service, 2018). Many students study while maintaining full-time jobs and, in some cases, families (Higher Education Academy, 2015). Combined with the fact that students are now required to pay their own tuition fees, this might mean that they may be more inclined to question and examine information regarding the type of learning that is promoted in higher education before choosing where to study. The BBC published a report in 2018 detailing which type of university course boost graduate wages the most. The report has analysed income figures published by the Institute for Fiscal Studies, five years after graduation, comparing different professions and detailing which can give a prospective student the highest return on investment. Alongside these, greater employer expectations mean that other changes have also been taking place in Higher Education (McMurray et.al, 2016). Where universities initially examined students' knowledge of a subject through exams and essays, today we see a multitude of different assessment strategies (Gibbs, 2010, Regnier, 2012). These include "Dragon's Den" type presentations, business reports and reflective portfolios, all of which aim to help students prepare for employment and are often influenced by industry feedback (Fook and Sidhu, 2016).

2.2 The History of Assessment

When considering the historical context of assessment practices in higher education, today we are, arguably, in a ground-breaking era. Both society and the economy demand graduate skills and knowledge that match their needs (Cai et. al, 2017). They call for evermore meaningful data on how students are attaining learning outcomes and how higher education institutions are using that data to

improve their practices around learning, teaching and assessment (Jenkins and Johnson, 2016). Sebatane (1998) describes assessment as the overarching notion that touches on almost every aspect of education. In the history of Higher Education, the term "assessment" is relatively new, dating back to the 1970's (Heywood, 2000). Wilbrink (1997) however argues that, although assessments might have had different names like "testing" or "examining"; actual assessment traditions appear immune to changes in the cultural environment. His study demonstrates that before the beginning of the 20th century, assessment had already developed into the forms and procedures which characterise it today. The origins of examinations lay in the studies of religion and the ambition of the medieval monk to learn Latin grammar and to understand Latin texts. Assessment took the form of having students recite and answer questions on particular parts of the bible. Most teaching and learning focused on being able to give the right answers to questions about religious text (Wilbrink, 1997).

Important principles of assessment were developed by Cele, a rector of the Latin school of Zwolle in the Netherlands. Cele ran the school between 1375 and 1415 with an annual intake of between 800 and 1000 students. The number of students led him to develop a grading system of abilities and skills where students could move up in ranks. Students could enter the next rank up by completing an examination. Lower ranked students were taught by higher ranked students. Cele's innovations were introduced by his students to institutions across Europe, including the University of Paris, where it became an official method for the European model of the graded school, ranking students on the basis of merit. A system developed where those students who had achieved a certain rank would receive a license to teach, enabling the licensee to teach anywhere in the Christian world (Wilbrink, 1997).

At the start of the 19th century the ranking system begins to be replaced by marking systems. More and more academics start to believe in the power of measurement. The competitive examinations in Oxford and Cambridge demanded objective assessment and this in turn demanded the curriculum to have credibly objectives and for it to be narrowed down to the extent that it could be assessed by using marks. Assessment became a very serious matter for students and one's future career started to depend on it. From now on what counted most for students was only what they would eventually be assessed on (Willbrink, 1997).

Only in the second half of the 19th century did American colleges replace recitation by lecturers or group discussion, however the assessment remained the same, mostly with public oral examinations. There were however critics of the University and its assessment system. Newman, for example, (1852, cited in Hoskins 1999, p11) stated that memorising facts for examinations did not stimulate students philosophically and intellectually. Whitehead (1932) described the success obtained in higher education by simply memorising and reproducing facts as the "evil path". The first diversified assessment was introduced 70 years ago in the form of the essay as we know it today (Banta et. al, 2012). Stalnaker

(1957) described the essay as a form of assessment in which the student can develop their own approach to writing and where the accuracy and quality can only be judged subjectively by the master skilled in the subject. Henderson (1980) argued that the essay is not just a tool for assessment but also for learning as the process of writing an essay includes a number of drafts, some of which the student may receive feedback on. This brings us to today's discussion on formative assessment and diversifying assessment.

Institutions are becoming more adept at using sophisticated assessment approaches to ensure students are ready for the competitive global economy (Jenkins and Johnson, 2016). Jenkins and Johnson (2016) looked at assessment practices within members of the association of American Colleges and Universities (AAC&U). They found an 11% decrease in institutions using exams as a form of assessment between 2008 and 2015. In the UK, the HEA has called for colleges and Universities to also decrease the number of exams as form of final assessments. The case university, in its TEF 2017 publication, announced that it would remove exams from most of its courses, starting with the removal of exam-based assessments at level 3 and level 4 on all of its courses for the academic year 1718.

With so many graduates entering the employment market each year, recruiters differentiate applicants based on degree classification, often preferring those with first degrees (McMurray et.al, 2016). Students too, are aware of different performance indicators and how these might influence their chances of good employment after graduation (Higher Education Academy, 2016). Thus, institutions, courses and students are measured against the key performance indicator: results in degree classification.

2.3 Learning for Assessment

Professor Diana Laurillard is perhaps best known for her book "Rethinking University Teaching" (2002) which is arguably one of the most cited books in the field of higher education (Research Gate, 2019). However much earlier, in 1979, she considered how different individuals approach learning, their commonalities and how these are affected by content as well as context. Her starting point is that it is the "common experience that we tend to learn better when we enjoy it" (Laurillard, 1979, pg. 89). Within the same paper, Laurillard argues that assessments have been shown to direct student learning behaviour by influencing the quality and quantity of effort to study the student undertakes and argues that the assessment influences students' adaptation of either a surface or deep learning approach (Laurillard, 1979).

Literature suggest that most students today develop a learning strategy where they learn only to pass assessments, also called a surface learning approach (Anderson, 2010, Lindblom-Ylänne, 2018). Student learning has become focused on passing assessments (Peelo et al., 2002; Light et al., 2009, Chiesi, 2016) and they use their time strategically. Course content that is not assessed directly is

neglected; therefore, students gain only superficial knowledge of the core theory (Anderson, 2010; Yorke, 2001).

2.3.1 Approaches to Learning

An approach is defined by Ramsden (1987, cited in Allen, 1997, p.75) as "A relation *between* a learner and a learning task- the description of an intention and an action". It is a response to the student's subjective perception about what learning involves in a given module (Allen, 1997). Therefore, it could be a moving element depending on what the student believes what learning should take place in the module. Influenced by the teaching environment – which includes the assessment- and personal context; some students may seek to adopt an atomistic approach (Marton, 1988), which focuses on separate components in a task, or a holistic approach which focuses on relating the components, making the connections. Those who perceive learning in quantitative terms, focusing on achieving the minimum required to avoid failure, tend to adopt what is called a surface-atomistic approach; also called a "surface approach" (Entwistle, 1997, Higher Education Academy, 2017). Those who focus on high level activities, consider the wider elements of the module and look for integration of different elements, tend to adopt a deep-holistic approach also called a "deep approach" (Burton et al, 2009, Tsingo et. al, 2015). The phrase "approaches to learning" is also used to refer to a predisposition to adopt a particular process (Biggs, 1987) which is when students are asked by a questionnaire how they usually go about learning. Within both cases though, there are two clear components: the motivation for learning (why am I engaging) and the strategy (how am I going to learn) (Yau-Kay, 2003).

A third approach to learning identified by Entwistle (1988, cited by Entwistle, 1997, p.213) has been referred to much less in recent research: the achieving approach. This is characterised by the student striving to realise the highest grade possible by optimising his/her organisation of time and effort to achieve the outcomes which have been prescribed. The approach is about "putting effort into organised studying" (Entwistle & Peterson, 2004, p. 415) with an intention of fulfilling assessment requirements while enhancing self-esteem through competition (Burton et al., 2009). This achieving domain is defined by Biggs (1987) as based on competition and ego enhancement. When a student has an achieving orientation, they work to achieve high grades regardless whether the learning material is interesting or not. The strategic achieving student organises their time and work environment with an aim to gain the outcomes desired. They will select whichever strategies they feel will be most effective to achieving those outcomes (Häkkinen et. al, 2017). Biggs (1987), however, separates the achieving approach from the surface approach, arguing that the surface approach is to meet minimal requirements and the student only aims to learn the essential content, just enough to get by, at a rote level. In other words, surface motivation is instrumental when the students' main purpose is to meet minimal requirements while not

working too hard. A surface approach can produce higher scores on exams however the factual recall after the test is very limited. Students who adopt a surface approach will have forgotten the content within a week whilst students who adopt a deep approach will not only get the same results on a test a week later but can recall most of the concepts a year later (Tsingo et al., 2017). The achieving approach however profiles a student in a more strategic light. This student might have specific intrinsic motivations for a particular module and, therefore, apply a temporary deep learning approach to certain elements. Alternatively, the achieving student might focus their study not only to pass an assessment but to also obtain the highest grade (Häkkinen et al., 2017). To the outsider, the student might appear as a deep learner when in actual fact the student has only obtained the knowledge needed for the fraction of the theory that is being assessed. Perhaps conversely, Lyke, Kalaher and Young (2006) argue that students choose deep strategies when they are presented with more traditional assessments such as essay papers which require them to understand that what they are learning. Their evidence indicates that when a student is required to use a sophisticated schema to integrate different strands of information, almost automatically deep learning occurs. Guven (2008) is discussing the same when he describes comprehension monitoring strategies which involve students applying certain learning techniques to achieve the learning goals. It includes students motivating themselves and/or eliminating learning distractions. He also argues that some students, at times through help from mentors, develop affective strategies to help overcome emotional obstacles that emerge during learning. These strategies aim to minimise anxiety and the fear of failure. Often these coping strategies take the form of approaching tasks with concept maps, charts or learning outlines.

Ramsden (1992, p.53) argues that there is a close relationship between the approach students take to learning and what they are actually learning: whether approaches are measured quantitatively or qualitatively, whether the subject is medicine or history, or whether the outcomes are defined in terms of grades or in qualitative form. The quality of learning depends on the approach and different approaches lead to different outcomes. Deep approaches lead to higher level of understandings whereas surface approaches lead to unreflective outcomes with lower levels of understanding. The connection between the learning approach adopted by a student and the outcome of learning is so strong that the quality of learning can be predicted by analysing the students' conception of learning (Gibbs, 1995). However, whilst these theories are useful in explaining different approaches to learning, they do not make connections between the tasks, the learning and the students; perception of this.

2.3.2 The Learning Environment

The current literature provides evidence that the differences in approaches adopted by students are further influenced by the teaching environment or context (Chiesi et al., 2016). Formal teaching, excessive workload and reproductive methods of assessments are all linked to the adoption of a surface learning approach. In the last few decades, an impressive body of studies have been carried out which examined these two approaches to learning further: for example, Newstead (1992, 2000, 2002) and Hoskins (1999). Newstead's early research (1992) looked at individual differences between student learning approaches and documented the relatively high number of students adopting a surface learning approach. Newstead then however linked the perceived lack of learning to the variations in marks and feedback amongst examiners (1996 and 1997). He continued to develop his research (Newstead and Finley 1997; Newstead 2000) and in 2002 argued that assessment has a major influence on students' attitudes towards their studies. He claimed that students' principal motivation is to get good marks rather than to learn about their discipline and that the assessment systems employed in Higher Education are flawed in several aspects and that there is a need to radically change the way we assess to encourage deeper learning.

Hoskins (1999) too looked at student approaches and attitudes toward essay writing in her PhD thesis. She used qualitative methods, primarily focus groups, in her research. Her findings demonstrated that students at times start with an intrinsic interest in their studies, highly motivated but then become disillusioned with the methods of assessment. The inconsistent marking, apparent glass ceiling to marks and lack of feedback led students to adopt a mechanistic, surface approach to essay writing.

Ramsden (1992) argued that a surface approach to learning is associated with an inappropriate assessment. Gijbels and Dochey (2006) argue that students, depending on the assessment methods used, tend to shift between surface and deep understanding approaches. Their study looked at 108 criminology students and their preferences and approaches to learning. They tested first year students at the start of a semester and found those who had surface learning approaches still preferred "higher order thinking" assessments as did those who intended to adopt a deep learning approach. Students were then given four formative and ungraded group assessments and asked again to identify their preferences for the summative and graded assessment. Having experienced the higher order thinking formative assessment, most students now preferred these significantly less. There was no change from students adopting a surface approach to moving to a deep learning approach; on the contrary- the results showed a significant increase in the adoption of more surface learning approach from the original "deep" learning students. Hall et al. (2004) tested the idea of changing methods of teaching and assessment to encourage a deeper learning approach with students studying towards an accounting degree. They compared the approach to learning of two sample group in their first year of study. The first sample group was given individual

accounting problems which they had to solve and where then discussed in their seminars, with the tutor showing the solution. The second group was divided into small group at the beginning of the semester and within these groups were asked to discus and work out different accounting problems. As part of their assessments they had to present their findings. The study showed that the students working in small groups gradually developed a deeper approach to learning.

Donnison and Penn-Edwards (2012) however argue that it is unreasonable to expect first year students to consistently engage with deep learning. In their aim to improve academic results and overall engagement, Donnison and Penn-Edwards developed an engagement model. They argue that first year students quickly find themselves in a cycle of preparation, activity and assessment and the engagement model helps them to learn how to learn and actually stimulates surface learning to understand the foundations of a course. Dolmons et al. (2016) agree that those courses which include assessment which allow for problem-based learning tend to have higher student engagement and a deeper approach to learning.

This thesis compares students perspectives on their approaches to learning when faced with different assessment models, one which does not offer formative feedback during the preparation period (exam), on which offers the opportunity of some formative feedback when a draft assessment is submitted (essay) and one which offers formative feedback on regular intervals (The BLPAS assessment, which is introduced at the start of this thesis).

2.3.3 The Student-centred Teaching Approach

Torenbeek, Jansen and Hoffman (2009), argue that higher education has in the past always put the emphasis on the rational teacher-control transmission of knowledge to students. Teacher centred teaching refers to that what is taught, is transmitted by the teacher (Trigwell, 2012). This teacher-centred approach is most likely still dominant in most education settings as teachers deliver lectures to a large number of students and, often aided by presentation tools like PowerPoint, present their knowledge to their students who in turn take notes (Liu, Oiao and Liu, 2006, Chen and Brown, 2016). Maher (2004) however argues that there is also a space for the student-centred learning and teaching approach which means that learning is self-directed by the student and the student has an active involvement in the learning process. Student-centred learning expects students to be active in planning their learning goals, planning their activities to meet those goals and eventually to assess their own learning experiences (Rust et al., 2003). One could perhaps argue that student-centred learning is not too new and is in fact rooted in the humanist views of individualised learning which involves self-direction and self-actualisation (Boone et al., 2002). Fowler (p, 428, 2008) argues however, that the student-centred approach is in fact

consistent with the experimental learning principals identified by Kolb (1984) and that the ultimate goal of student-centred learning is that it is closely related to the higher-order thinking skills as proposed by Bloom (1956). Watson et al., (2008) argue that there is evidence that higher education has accepted the value of student-centred learning and that there is an increase in innovative teaching approaches to improve this aspect whilst also encouraging deeper learning outcomes. Torenbeek et al. (2011) support this, arguing that a teacher-oriented approach will lead to surface level learning. Where learner-centred approaches develop deep cognitive skills through the active participation and interaction in the learning process, the teacher-centred approach leads students to temporary reproduce information and the ability to develop critical thinking and problem-solving skills is minimal (Prince, 2013, Pleschová and McAlpine, 2016). Lucardi and Bursari (2017) completed an intervention study measuring knowledge retention between students who had followed a flipped classroom approach, which they argue to be a more student-centred approach to teaching, and those who didn't. Both the control group and the intervention group completed a survey at the end of the module, measuring their knowledge. The students who had followed the more student-centred approach of a flipped classroom showed more knowledge acquisition, which the research team attributed to more active and engaged learning.

Not all literature however is positive about student-centred learning. A study conducted by Chen and Brown (2016) investigated the two different methods of teaching within the context of China. Western journals have traditionally critiqued the Chinese higher education system for its emphasis on exams and therefore rote learning (De Haan, 2008). At the turn of the millennium, the Chinese government sought to change this and encouraged more student-centred teaching and assessment methods (Tatsuoka and Corter, 2004). Chen and Brown (2016) compared the attainment of those students taught in a more teacher led environment with traditional exam assessments and those taught in a student centred environment and found those being taught in the more traditional method performing better and still demonstrating a deep understanding through their analysis and critical application of what they have learned. Chen and Brown (2016) explain this by the argument that rote learning is not mere memorisation but "a consolidation of knowledge and deepening of understanding" (Chen and Brown, 2016, p.360). For a student-centred approach to succeed then, some argue that learners need to be on board and understanding of the approach (Flemming-Castaldy, 2015). First there needs to be a smaller steppingstone from secondary education to higher education in the form of assessment strategies (Edwards, 2016). Second, when dealing with large and diverse group of students, note should be taken of different cultural backgrounds and approaches towards learning and teaching (Giwa, 2017). Students who are not familiar or cannot comprehend the level of independency required, might actually get more anxious from this approach and be unable to deal with these emotions. Students at the case university come from a unique diverse population: 71% are mature (aged over 21 on entry) and 55% are from black

and minority ethnic groups. The case University has one of the highest proportions of state school educated admissions in the UK (98%). Moreover, the University has traditionally seen a relative high intake of international students, making up a total off 17% of the total student population. Moreover, Universities have started to provide the same education at campuses in host countries, taking the home country academic team into new environments where they must be ready to provide suitable learning teaching and assessment strategies (HESA, 2017). The case college followed this trend with 400 students attending their level 4 and 5 modules across two campuses in India. A study carried out in 2011 demonstrated that students from the Indian subcontinent are often accustomed to exam-based assessment which encourages rote learning (Bajaj, 2011). Students who previously performed well when adopting a rote learning approach and who are now faced with a steep level of deep learning might be discouraged to the extent that they give up (Sparrow, Sparrow and Swan, 2000, Scheyvens, 2008). Flemming-Castaldy (2015) then seems right to argue that the student-centred approach can only be successful if the students either already have the skills or are given regular coaching and feedback on their performance. Furthermore, academic practitioners must have a good level of understanding of the cultural backgrounds and previous learning experiences of their cohorts (Crafts, 2017). The studies reviewed do indicate that academic practitioners are keen to understand the phenomena in more detail and want to know student's approaches to their learning. Although not all are discussed here, most of the studies reviewed link assessment to the approach taken and it is most commonly believed that introducing formative elements in assessments encourages deeper learning. This will be explored in the next section.

2.4 Assessment for Learning and the Formative Debate

The start of the century was arguably also the start of the "*assessment for learning*" debate. Black and Wiliam (1998) carried out a substantial review on the positive effect of formative assessment on students' learning. Black et al (2003, p. 122) state: "The phrase 'assessment for learning' has become a common substitute for 'formative assessment', yet there is possible ambiguity in this label. Information about learning can be gained from any assessment designed to produce such information, but if it is used for recording purposes or for long- term curriculum improvement, it will not help the learning of the students currently involved. It might be formative for the teacher, but not for the students. " Bennet (2011, p.5.) describes formative assessment as assessment for learning. Stiggins and Chappuis (2006) seem supportive of the move away from the formative assessment debate, arguing that it is no longer about creating platforms which enhance learning but instead about frequent summative assessment administered at regular intervals. However, it is worth noting Pollard's (1992, cited in Ecclestone and Pryor, 2003) observation that researchers have a tendency to create new categories and this may cause

confusion. For example, much literature and indeed the current QAA documentation, uses the phrases 'assessment for learning' and 'formative assessment' interchangeably (QAA, 2017). Therefor the next section will look at the origins and development of formative assessment.

2.4.1 Formative Assessment

Black and Wiliam (2003) and Guskey (2005) refer to Bloom's (1976) mastery learning model (figure 2) when they discuss formative assessment. With this model Bloom encouraged educators to change student behaviour through specific test and feedback to ensure students achieve defined objectives.

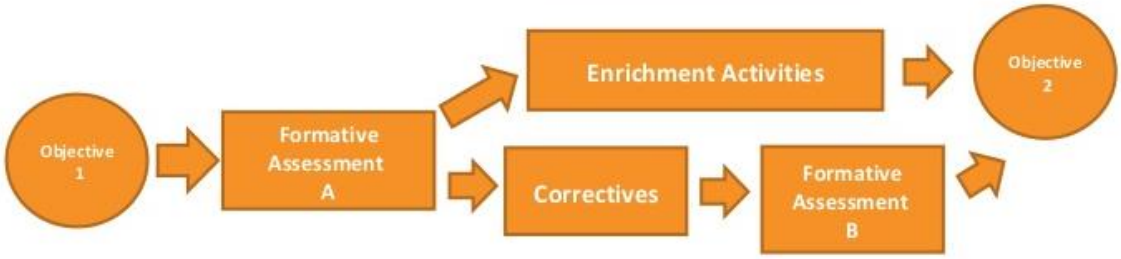


Figure 3: Bloom's Masterly Learning Process (Guskey, 2005)

Summative assessment is described by Bloom (1971 in Lau, 2013 p.10) as judging, grading and certifying what the learner has achieved at the end of a programme or module. Formative assessment aids both the teaching and the learning process whilst both are still fluid and adaptable (Bloom, 1971 in Lau, 2013 p. 10). The formative assessment process allows educators to feedback to students what they have learned and how they can improve their learning. Formative assessment' is a tool by which assessment for learning can take place, it is a process in which, as Black et al (2003) state, learning is evoked and then used to modify teaching and learning.

In their aim to find justified reasoning for formative assessment, William and Thompson (2007, p. 67) drew upon Ramaprasad's (1983) three key processes of learning and teaching:

- Establishing where learners are in their learning.
- Establishing where they are going.
- Establishing what needs to be done to get them there.

Within these processes, William and Thompson argue that teachers are responsible for creating a stimulating learning environment and the student is responsible for learning within that provision. From their perspective, learning is both the responsibility of the lecturer and the student; therefore, each is responsible to do all they can to mitigate the impact of any failures of the other.

Crossing the three processes with each other (teacher, learner, peer), William and Thompson (2007, p. 72) indicate that formative assessment can be conceptualised as comprising five key strategies:

1. Clarifying and sharing learning intentions and criteria for success.
2. Engineering effective classroom discussions and other learning tasks that elicit evidence of student understanding.
3. Providing feedback that moves learners forward.
4. Activating students as instructional resources for one another.
5. Activating students as the owners of their own learning.

Black and Wiliam (1998), Clarke and McCallum (2001) and Webster (2010) unite formative assessment and effective pedagogy, and present readers with a range of techniques for implementing formative assessment. Since its origins, many educators worldwide have attempted to incorporate formative assessment into their learning environments, including the higher education institutions in the UK.

Black and Wiliam's (1998, p.2) conducted an extensive survey of the research literature looking at 250 studies that considered the formative assessment process. One of the priorities in evaluating the research reports, Black and Wiliam explained, was to identify and summarise studies that produced quantitative evidence that innovations in formative assessment could lead to improvement in learning. Thus, their review allowed the research area to be viewed in comprehensive detail. However, although their report focused on formative assessment, Sebatane (1998) highlights that despite high stakes assessment procedures impacting upon a range of aspects of teachers and student behaviour, these are not considered in Black and Wiliam's (1998) paper. In addition, while Sebatane (1998, p.128) acknowledges that Black and Wiliam have: "..done a commendable job of identifying and reviewing relevant literature, it does not seem entirely satisfactory to have excluded from consideration .. contextual factors in dealing with teachers' assessment." It is this context that will be considered next.

2.4.2 The Emphasis on Summative Assessment.

For formative assessment to succeed, the academic practitioner also needs to consider the tools used to create the opportunities for the students to share their thoughts and ideas with their tutor and peers (Bennett, 2011, López-Pastor and Sicilia-Camacho, 2017). Heritage, Vendlinski and Herman (2009) discuss the challenge tutors encounter when trying to include formative assessment within their classrooms. Not only do they mention the workload involved in the coordination of the student-centred approach involving activities and encouraging student thinking, they also mention the vast resistance some students voice when needing to put in work which is not directly assessed. Higher education professionals and institutions were keen to make formative assessment part of their assessment method; yet in the last few years we have seen a diversion, a slight uprising against it (López-Pastor and Sicilia-Camacho, 2017). Practitioners have started to remove the ungraded elements of formative assessment in response to student's feedback and performance (Zwelijongile-Gaylard, 2015). Some report that students are just not putting in the effort to complete assessments which are not graded (Gibbs, 2010). The BLPAS framework, discussed in the introduction, has now incorporated grades at different stages of the assessment and student thoughts on this will be reviewed in this research. In addition, the external pressures such as increased staff/student ration, demands on staff to be "research active" and the overall focus on final assessment and results might mean that educators feel they do not have the time to provide the extra feedback. Yorke (2011) gives a different reason for educators not making formative assessment part of their practises, arguing that many believe that a summative assessment associated with measurement is more reliable and therefore fairer than formative assessment.

Summative assessment is intended to measure the extent to which a student has achieved specified learning goals. This type of assessment is commonly carried out at certain intervals throughout a course (Harlen and James, 1997). Tara (2009) argues that there is a flawed focus on the various functions that assessment can serve and by not seeing formative and summative assessment as a single process, this has resulted in unnecessary duplication of processes which is detrimental to teachers and learner's workload (Tara, 2007b, p.364). In other words, when teachers and students see formative assessment as an extra function, they will feel they have to double their workload and are unwilling to engage in the process – leaving out the opportunity for feedback to improve. Perhaps, instead of focussing on definitions and what is included and what not, it is more important to simply focus on creating assessments to encourage learning and seeking students' feedback on how well this has been achieved?

2.4.3 Formative, Summative or Both?

The question then is why are we making such a clear distinction between formative and summative assessment? Can they not be part of the same assessment? When Black and Wiliam's (1998) first argued their case on formative assessment, Biggs (1998) criticised them for viewing summative and formative assessment as mutually exclusive. Biggs (1998) argued that both formative and summative assessment are essential in the learning through assessment experience and that a sensible model of assessment should always include both formative and summative assessment. Educators might see the learning aims, objectives or outcomes of a module as the focal point of their teaching and what should be learned. It helps educators to identify the strengths and weaknesses of the students understanding (NRC, 2011). Students, however, will use the marked assessment as a starting point and use this to define what they need to learn (Biggs, 1996). Learning only for assessment carries the risk of sole surface learning only. It is therefore important to synthesise formative and summative and to not necessary give them different names when briefing the students (Clinchot, et al., 2017). Ensuring the assessment meets all elements of the module ensures students are motivated to aim high and to go through all stages of the learning process (Lau, 2015). As such, if we accept that students are driven and motivated foremost by summative assessment then if the assessment is aligned with other (formative) elements where students have the opportunity to receive incremental feedback they will engage with the learning process as a whole and at a deeper level. Barnett (2007) supports this view, arguing that we should avoid "… *the temptation to distinguish between summative assessment and formative assessment and to place all weight on the latter*" (Barnett, 2007, p.35). Barnett (2007) further argues that if educators provide an environment where students have the opportunity to have an engaging relationship with their tutors then students will learn that "… *assessment is in their educational interest (and not merely her economic interest of the financial capital that her degree will represent*)" (Barnett, 2007, p. 38). As Elton and Johnston (2002, p. 15) assert, the link between formative and summative assessment 'should not confine itself to what will eventually be summatively assessed but rise above it'. Formative and summative assessment should not be separate (Gaylard, 2015, Lau, 2016). They should be a part of a wholesome learning environment and work in harmony. Perhaps, instead of focusing on definitions and what is and is not included, it is more important to simply focus on creating assessments to encourage learning.

2.4.4 Creating Assessments to Encourage Learning

From the late 1960's through to today a wealth of research has been undertaken to explore the learning behaviour of students and this has arguably shaped the design of modern courses and the way they are taught (Biggs, 1996, Flores et al., 2015). As argued by Iannone and Simpson (2012), increasing numbers of individual lecturers are introducing new types of assessment, moving away from the

traditional essay and exam to increase learning by the student. The question on how to assess is not new. Researchers from across the world are giving versions of the development of assessment (Cowan, 2010; Jannon and Simson, 2012, Flores et al., 2015). The traditional view of assessment, as presented by Taylor (1994) argues that assessment is based on the theory of individual difference. In this view, human abilities and intelligence are measurable traits when compared to other individuals. The view argues that there are limits to intelligences and human capacity and that it is distributed across the population. Therefore, when accepting this view, a person's performances can be "… judged in relation to that of his/her peers…in terms of relative performance rather than their absolute performance" (Gipps, 1994, p.5). Incorporating this view within assessment of learning, the assessment elements would measure performance against standardised criteria, with limited scope for different views. In this traditional view, one is assessed in relation to what is the norm when considering peers. Taylor (1994) argues that this acceptance of objective measurements has perhaps led to most assessments in Higher Education being standardised exams, essay's or reports. The last two decades have seen a relevant shift in how to form assessments based on this view. Moving away from the abstract of human intelligence, academics have become more focused on human cognitive ability (Flores et al., 2015). Khan (2015) argues that instead of focusing on the limitations of everyone's intelligence one should consider that the process of thinking and reasoning can grow through different interactive processes and contexts. Shepard (2000) continues the argument of cognitive theory however points out that this theory is in fact a reintroduction of Vygotsky (1978) discussion on social development. Shepard (2000) also argues that what is not always understood within Vygotsky's education is supposed to provide the equal opportunity for diverse groups of people to learn.

2.5 From Exams to the BLPAS Framework

2.5.1 The Assessment Experience Questionnaire

Gibbs and Dubar-Goddett undertook their study on the effect of assessment environments on student learning in 2007. Their extensive piece of work included nine different numerical data sets on assessments from nine different courses in three different institutions. They developed a version of the Assessment Experience Questionnaire (AEQ) which was capable of measuring students' learning response to programme-level assessment environments and distinguishing between programmes, between disciplines and between institution and which examined 516 students. The results of this study demonstrated the differences in assessment practices across courses and how the different patterns of assessment can be associated with different student learning responses. Gibbs and Dubar-Goddett argued that this study allows for identification of those assessment types that are linked to negative or positive

learning responses. In 2010, Gibbs issued a 71-page manual on how to use assessment for learning. The guidelines discussed formed the foundation of my own assessment framework, the Blended Learning Phased Assessment Framework (BLPAS) (Kanuga, 2011).

Jessop et al. continued to build on their research with the "Transforming the Experience of Students through Assessment (TESTA) Framework" (2014), funded by the Higher Education Academy. Using an adapted version of the 2007 AEQ, 23 degree programmes in eight universities were audited and revealed considerable differences in assessment patterns and methods of feedback. This time, in addition to quantitative data being obtained, qualitative methods were employed through focus groups. Analysing the data from both the quantitative and qualitative method demonstrated close the relationships between the type of assessments and the learning taking place. In addition, the data indicated that quality of feedback when assessment objectives were clear were much more important than quantity of feedback. In cases where assessment requirements were not clear or varied across the course feedback was considered unhelpful and even demotivating in the learning process.

2.5.2 Innovative Assessment Practices

Aligning assessment practices and ensuring all practitioners are quality checked on their feedback is what Newstead (2002) called for previously. What is certain is that practitioners are keen to improve their own learning teaching and assessment methods to improve the experience of the student and to develop learning (Cowan, 2010, Lau, 2016). Hoskins' (1999) research looked at the origins of the essay paper and describes how the essay has been the method of assessing higher education in the UK since the origins of higher education and has gone hand in hand for centuries alongside the exam paper. The essay has always aimed to test higher order thinking skills and the ability to consider and apply different concepts into different context. And essay can also be used formatively with drafts reviewed. As such, little can be argued against essay's as way of assessment in Higher Education accept that it may not suit every learning style and does not always prepare well for employment (Baker, 2010). In 2010, the Higher Education Academy funded a range of soft cover textbooks, all including case studies of practitioner examples of assessment practices which were aimed to enhance learning. Different subject centres ranging from accountancy and finance to hospitality and tourism each published a range of different innovative assessments practices: from e-portfolio's and online blogs to peer-assessed viva exams.

Practitioners are reviewing the "myths" through group work assessment, changing traditional essays into business reports and are working with industry to deliver "dragon den" type business pitches. From running live events to staging a "house of commons" type debate; today's student can expect to be assessed in many ways (Higher Education Academy, 2018). These creative assessment methods are far from the traditional exams and include portfolios, work-based projects, simulation assessments and

presentations. Most are still individual assessments but, especially in social sciences and business studies can also be collaborative with peers (Elton and Johnston, 2002, Flores et al, 2015). Most often the reason for creating innovative assessments is the various literature on the advantages to students learning approaches and learning styles (Zlatkin-Troitschanskaia et al, 2016). It is more common now then it perhaps was ever before for lecturers to have gone through a certified teaching program where they become aware of these theories and different practices but where they are also encouraged to do practice-based research (Higher Education Academy, 2018). The BLPAS Framework which I developed in 2011 and which is discussed in the introduction chapter of this thesis is an example of an assessment which was inspired by theories studied during my completion of the PGCERT in higher education and a demonstration of how academics are developing assessments to encourage learning and how learning can transform into knowledge that can be applied permanently, not only during assessment, is possible. This thesis builds on those early ideas.

2.6 Learning and Knowledge Retention

During a person's early learning stages, at pre-school and in primary school, they are capable of learning new skills and concepts at rapid speed (Arthur and Cremin, 2010). A child who learns about historic facts at the age of seven, will keenly share those details, fact-by fact, at home (Model, 2018). As an adult, you might think the child is exceptionally clever, learning many more things than you did at that age and at the same time recalling it. Yet, if you attended school in the past 50 years, then your curriculum would have been similar (Khan Academy, 2018). Your ability to re-call the information that you learned has been, at least momentarily, lost. The way we are taught core curriculum in primary and secondary education, although it has been advanced with many new learning technologies and teaching methods, has not much changed in the past four centuries (Arthur and Cremin, 2010). Although traditionally we believed that our brains could not further develop with new knowledge after the age of 25, today we know that if we apply a growth-mind set to the skills and knowledge we want to acquire, we can learn anything we set our minds to, at any age (Fraser, 2017). We know that if we want to learn how to play an instrument, we start with the basics and we do not move on to the next level until we master those basics, simple because one cannot go from learning how to read notes and moving their fingers accordingly to playing a symphony. The same is in sports. When we learn how to swim, we do not move on to swimming in deeper waters until we have mastered swimming without floats in waters that we can stand. Yet, the way we learn our core curriculum in primary and secondary education, even with the acceptance of the growth mind-set theories and the new technologies adapted, has not moved on (Fraser, 2017). When we teach maths for example, students are taught certain elements and a few weeks later they are tested on their knowledge. Some of the class will get 95% right, others only 60%.,

but as an educational institution we are satisfied that most have grasped most of the content and we move on to the next level (Khan Academy, 2018). Thus, even though we know that our students cannot yet swim without floats, we make them swim in the deep water. Many of those students will sink and give up and say: "It is not my thing". Learning to learn in higher education is said to occur in two areas: understanding learning processes and becoming an autonomous learner; and understanding discipline knowledge and becoming competent in constructing that knowledge (Wingate, 2007, p. 394). The traditional teacher-led model of long lecturers is still commonplace in most universities, yet students will recall very little of a long lecture (Johnson, 2017). If they are asked about a specific lecturer and its content a day later, most will only recall 20%. A few weeks later and most will recall less than 5% of a specific lecturer (Schmidt et al, 2015,). We can retain knowledge better if we have building blocks of acquisition, understanding, application, analysis and then innovation (Sharples et al, 2016). The assessment tools currently being applied in higher education may not be aligned with how the student acquires and stores knowledge over the long-term (Betchtold et al, 2018). The correct approach to learning, teaching and assessment methods should provide the opportunity for deeper learning and knowledge retention.

In this chapter, I have thus far reviewed the journey of assessment theories, practices and innovations over the last few decades. There are many initiatives taken by academics, researchers, learning technologist and educational developers to improve assessment and learning both at a strategic and practice level (Gravestock and O'Connor, 2005, Cowan 2010, Lau, 2016). All are keen to continuously examine the learning teaching and assessment practices which lead to more engaged students who take on a deep approach to learning. The depth and volume of the research exploring these concepts is phenomenal. Within this, Gibbs and his colleagues' ability to test learning approaches and their recommendations for adaptations at course level still stand out for me. Nevertheless, theirs and others' research does not test which assessment strategies in individual modules, influenced by specific learning environments, lead to longer term knowledge retention. Although consideration has been given to how students learn, they lack the question of how these teaching and assessment methods impact on long-term retention of knowledge, especially from the perspective of students and which this study is keen to explore.

2.6.1 Current Studies Measuring Long-term Knowledge Retention

The "Learning Pyramid" (Figure 5) which illustrates the percentage of learner recall that is associated with various approaches, is believed to have originated from the "National Training Laboratories" in the USA and aimed for those working within andragogy, or adult learners in the workplace. Although the learning pyramid is criticised in academia for its perceived lack of research-

based underpinning as well questionable origins; one could argue that it is validated by decades of experience by professionals involved in corporate learning. In the corporate environment, measuring engagement with learning and knowledge retention thereof is essential for return on investment. The well-known phrase "Dead by PowerPoint" perhaps stems from the professional realisation that to engage their audience and for learning to take place and to be remembered, there needs to be peer involvement and discussion as well as practice (role play).

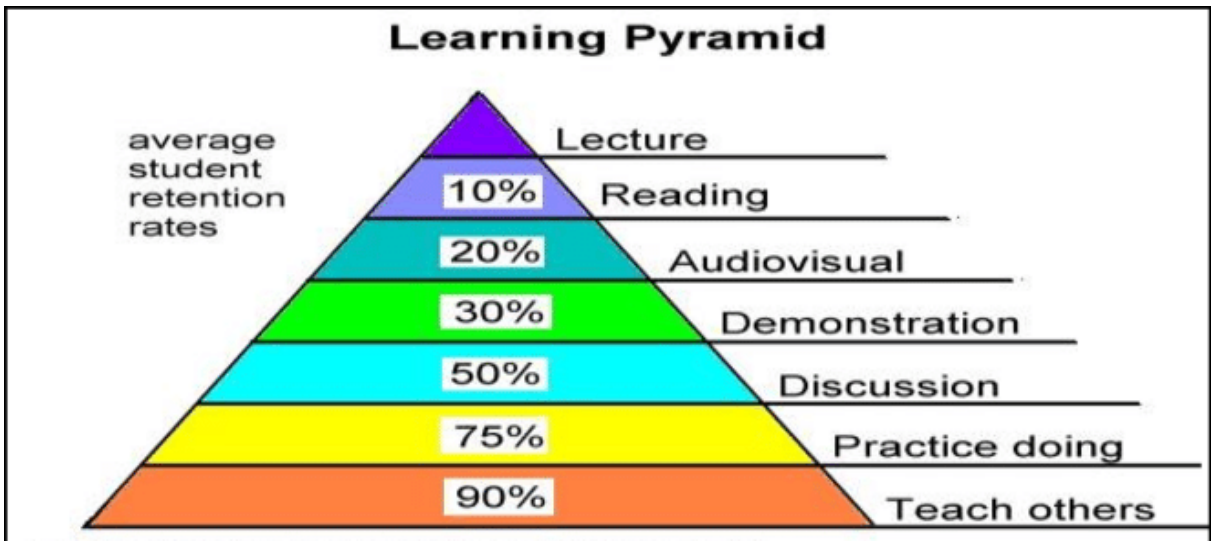


Figure 4: Learning Pyramid. Source: National Training Laboratories

Interestingly, when it comes to measuring long-term knowledge retention of undergraduate students, research is limited. Especially for degrees related to business management. Stanhope and al (1993) in their study on knowledge retention, discuss the schema theory. This theory is similar to the studies of the memory of stories, wherein listeners or learners might remember the roles of various characters but not their individual names. In the schema theory, listeners will be able to retell key elements of the story. Similarly, learners might forget some specific definitions of theory learned however may be able to apply the concept of them in new situations, depending on the approach to their original learning. Semb and Ellis (1994) divide the field of memory research into separate categories concerning the retention interval-the length of time between when the original learning is completed and when the retention of that learning is assessed. Bacon and Stewart (2006) define the length of time between when the original learning is completed and when the retention of that learning is assessed as a learning interval. The amount of knowledge that is retained after a retention interval is called knowledge retention (Bacon and Stewart, 2006). Short-term memory research is that where retention intervals are as small as seconds whereas long-term memory research looks at intervals in days or weeks. The very

long-term memory refers to those studies that measure knowledge retained after a few weeks to many years (Stanhope et al., 1993).

A number of studies have been done to measure short, medium and long-term knowledge retention in higher education. Gallagher et al. (2005) compared the knowledge retention of students taught in class with those taking a course in gerontology online after a 6 months interval and found that the online learners had higher retention. Bell et al. (2008) looked at the knowledge retention of medical students taking an online tutorial and found that at as little as three days knowledge decreased by as much as half. Students who took the test after 55 days had the same level of knowledge as students who had yet to take the tutorial. Colabro et al. (2010) looked at medical students taught in a classroom environment and found that knowledge is dramatically lost over time. Pre and post-study revealed significant increases in results; however, after a two-year learning interval, there was no significant knowledge retention. Bell and Colabro results contradict Custers (2010) results, who also tested medical students through online testing and who found that the basic knowledge required was retained after a prolonged period of two years. Yet although all three studies review medical students, the knowledge tested could be different because of various student motivations for learning and retention, prior learning experiences and teacher influence. The motivations for learning and retention and its influence on the approach to learning for the students of each study should also be considered before making any assumptions on the above-mentioned results (Willingham, 2013). Bacon and Stewart (2006) have a similar hypothesis to the current study where they hoped to demonstrate that deep learning leads to knowledge retention. Their study measured the knowledge retained on a marketing module in consumer behaviour. Bacon and Stewart (2006) developed a knowledge retention test which has questions that could be linked to surface approaches to learning and questions that could be linked to deep learning approaches. They measured this retention after a learning interval of two years. They found that most knowledge of the course is lost although that deep level is more likely to be retained than surface level understanding. Moreover, they found that knowledge that was tested several times during a course was more likely retained than knowledge only tested once.

Although these studies are all measuring knowledge retention, in all studies the knowledge and understanding was original assessed via an exam method and not via one of the innovative methods mentioned previously in this chapter. Bacon and Stewart (2006) argued that repetitive exams are perhaps the way to go to ensure knowledge retention. Within this they also state the dilemma a practitioner might face when presenting the students with repetitive exams and the link to students' dissatisfaction to a course, arguing that in the past students have voiced their frustrations with high volume of exams. The present study believes that this testing can take place in intervals and with repetition however does not

need to be exam based. Bite size assessments, or phased assessments, similar to formative assessment but with marked elements, might be the way forward.

As students prepare for assessment, knowledge is placed into working memory and is quickly deleted by the brain once the assessment is completed, to make place for new learning, unless the learning is "tagged" by the brain of being of future value to the student either in future learning or the workplace (Dunloskey et al., 2013). In addition, prior knowledge or understanding of a subject can have an impact on retention as the brain is more inclined to move that what is learned from short term memory into long term memory (Dunloskey et al., 2013). One way of achieving this overlap could perhaps be through an assessment method. Bechtold et al. (2018) agree with this, arguing that perhaps too often the academic team and students are concerned with the grade to be earned instead of focusing on the long-term relevance to the students' career objectives. They argue that there needs to be a clear future value of what is learned to start the process of memory consolidation into the long-term memory. The next logical enhancement in higher education will be to take what is known about deep learning and to design teaching and assessment strategies that will make it easier for students to optimise knowledge retention throughout their lifetime (Bechtold et al., 2018).

2.7 Learning for Critically Thinking versus learning for Knowledge Retention.

Currently trending on social media is a quote by Albert Einstein: "Education is not the learning of facts, but the training of the mind to think" (Facebook, 2018). The quote stems from a response by Albert Einstein in 1921 to a statement made by Thomas Eddison who claimed there was no need for anyone to go to college as education at that level was useless. Phillip Frank, his colleague and later successor, wrote a book on Einstein which was re-published in 2002 and in here the quote can arguably be traced back to Einstein stating that a person can learn facts from books and if this was their only goal, a college education is indeed not required. Yet, Einstein argued according to Frank, the value of going to college is to learn how to train the mind to *think* and for that - going further in their studies through college is valuable. The debate on the need to attend higher education seems as relevant today as it was a hundred years ago, with accessibility to the internet and all its information increasing each day, including for those with very little access to funds. Perhaps this is why in higher education circles, from the academy through to individual academics, the soft skills, or graduate skills, gained through the journey of a degree course get underlined. The Higher Education Academy launched the "Graduate Skills Framework" in 2015 and the Quality Assurance Agency (QAA) launched a special project under the name "Focus on Graduate Skills" for the academic year 2018/2019. Many individual higher education institutions too, argue that their students will develop graduate skills during the completion of their course and that this is what will set them apart from those who have chosen to continue their education and those who have

gone into work. The graduate skills listed by the QAA are in line with Einstein's original thinking and argue that the students completing a degree should develop independent thinking skills, the ability to critically analyse and be able to engage independently with areas of investigation. In addition, graduating students should be able to develop creative solutions, communicate clearly and effectively and be familiar with current and emerging technologies. Employers agree that these are skills they look for in graduates and hope they have acquired when they begin their professional careers, however they also argue that without the fundamental knowledge and understanding of the field they are entering, the graduate skills listed by the QAA are of little value. As the chairman of the institute of hospitality argued in an article published by the Charted Institute of Personnel and Development (CIPD) in 2018: "If graduates want to be fast-tracked into junior leadership roles, we expect them to know the principles of leadership, the basics of employment law and understand how our business works from a financial perspective. We can teach entrants, but we expect and need it from graduates."

Soft graduate skills are needed for developing and growing businesses, for transfer between departments and even industries or to transition into academia. For students to be successful in their chosen professions, they also need to retain some, or most, of the knowledge gained in individual modules studies. This does not only apply to the field of science but also for students of the arts.

2.8 Chapter Summary and Focus for this Thesis and Key Concepts

The literature review presented in this chapter followed the conceptual framework illustrated in figure 1 in the introduction chapter and discussed the origins of assessment practices in Higher Education. It has demonstrated how these have moved on to the innovative assessment methods we see today. Important principles of assessment were developed by Cele, around the year 1375, who developed a grading system of abilities and skills where students could move up in ranks. This system was replaced at the start of the 19th century with marking systems. Only in the second half of the 19th century did some institutions replace written recitation by oral examination. The first diversified assessment was introduced 70 years ago in the form of the essay as we know it today. The essay allows the student to develop their own approach to writing and the accuracy and quality can be judged subjectively by the master skilled in the subject. The essay was first considered as a tool for learning by Henderson in 1980. Today institutions are becoming more adept at using sophisticated assessment approaches with an 11% decrease in institutions using exams as a form of assessment between 2008-2015.

In 1979, Laurlillard identified that assessment has a direct impact on student learning behaviour by influencing the quality and quantity of effort to study and to adopt either a surface approach to learning, where the focus is on achieving the minimum required to pass an assessment and where the

student aims to learn just enough to get by at a rote level or deep learning approach where the student seeks to understand meaning and sense of what they are learning. In 1987, Biggs developed an approach to learning questionnaire with two clear components: the students' motivation for learning and the strategy thereof. He identified a third approach: the strategic learning approach where the student organises their time and work environment with an aim to gain high grades. A strategic learner has only obtained the knowledge needed for the fraction of the theory that is being assessed. It is argued that a deeper approach to learning is linked to longer-term knowledge retention of that what is learned. A surface or strategic approach to learning is linked to loss of learning retention. The current literature provided evidence that the approaches adopted by students are influenced by the learning environment which include formal teaching, excessive workload and reproductive methods of assessment. Newstead (from 1992 to 2002) was the first to argue that the method of assessment has a major influence on students' attitudes and approaches to their studies.

Having accepted that the learning environment has an impact on the student approach to learning; a student centred teaching approach has been reviewed concluding that there is evidence in higher education has accepted the value of student-centred learning and that this is closely linked to a deeper approach to learning and higher-order thinking skills. However, the literature also argued that a student-centred approach can only be successful if the students either already have the skills or are given regular coaching and feedback on their performance.

This moved the literature review on to the formative debate. The formative assessment educators are encouraged to change student behaviour through specific test and feedback intervals and to ensure defined objectives are achieved. Formative assessment gives the educator the opportunity to establish where learners are in their learning, where they are going and what needs to be done to get them there. In essence a formative assessment should provide steppingstones to achieving the learning outcomes via a deep approach to learning. An extensive review on this concluded that students will use the marked assessment do define what they need to learn at as such educators should not distinguish between formative and summative assessment when briefing student instead, create an environment where students have an engaging relationship with their educators and that assessment is in their learning interested. Educators should focus on creating assessments to encourage learning. As the literature identified this is exactly what has happened in modern curricula, especially in the last two decades with a focus on cognitive ability.

Finally, the literature considered current research on retention of learning, or knowledge retention. Having considered the journey assessments have gone through in higher education, with the clear aim of developing assessments which encourage deep learning; I wanted to know what is known about which type of assessment ensures the students, academics and industry see long-term results of the

efforts being put in. To encourage longer-term knowledge retention, educators must consider motivation for learning and learning approaches. They need to build assessments which have building blocks, moving from one level to the next. Students can better retain knowledge if they have the building blocks of acquisition, understanding, application, analysis and innovation. To increase the possibility of long-term knowledge retention, key concepts should be reinforced across multiple classes throughout a degree course.

Over the last two decades, higher education has gone through significant changes. With the implementation of the REF, TEF and accreditation of academics by the Higher Education Academy; there has been higher levels of accountability towards course development underpinned by researched pedagogy. Better understanding of the influences of the learning environment and assessment on students' approaches to learning has led to academics being more innovative in their methods and trying to adopt a more student-centred approach. As part of our increased understanding of how students learn, we must aim to develop assessments to a level where we can measure if that what is learned can be retained by the student to apply either to future studies or their careers. This study intends to ask students their perception of different assessment methods and to consider factors which may influence surface and deeper learning from their point of view. It aims to consider ways to design and deliver curriculum and assessment methods to maximise student learning and retention of learning.

CHAPTER 3: Methodology

3.1 Theory and Rationale for Research

3.1.1 Introduction

The purpose of this study was to examine the student perception of different assessment methods and to consider factors that may influence surface and deeper learning from their point of view. It aimed to consider ways to design and deliver curriculum and assessment methods to maximise student learning and retention of learning from the student perspective to make recommendations on how to set up learning and assessment situations that will stimulate deeper learning and knowledge retention. Therefore, this research aimed to discover student perspectives on the relationship between assessment methods and retention of learning in higher education.

Sub-questions were:

1. Are there significant differences in assessment results, in terms of attainment, for different assessment types from the students' perspective?

2. Do academics attempt to provide deep learning and knowledge retention through different assessment strategies from the students' perspective?

3. Which learning approach do students take to completing different assessments and how does this potentially affect knowledge retention from the students' perspective?

4. To what extent do different assessment strategies (exams, essay or BLPAS) encourage long-term knowledge retention from the students' perspective?

The first section of this chapter aims to describe the general framework for social research and gives an introduction quantitative and qualitative methodologies, each distinct in their own way. Next,

the chapter considers the underlying theoretical paradigms associated with different research designs and gives a reasoning for the choice of methodology applied. The second part of this chapter looks at the methods employed to collect primary data. The final section considers the assessment of the research, in terms of its reliability and limitations.

3.1.2 Methodology

In 1992, Eisner argued that the purpose of research is to enhance knowledge, or as others would argue (Slevitch, 2011; Perri and Bellami 2012) to fill a gap. In social research this gap is often created by a thirst of the researcher(s) to understand a phenomenon in their environment. To answer their questions systematically, different methods may be employed. Although this is perhaps expressed in a simplistic way, the two main streams of quantitative and q ualitative methodologies have fundamental differences and follow opposing philosophical stances, based on their underlying theoretical parameters. On the one side there is the nature of reality or ontology, and on the other side of the parameter is the nature of interpretation, or epistemology (Baumgarten, 2010). The first is independent of circumstances and depends on external factors, it is the way in which reality is perceived. Conversely, the branch of philosophy considers the meaning of knowledge. Some argue that epistemological thinking develops from the assumptions raised in ontological assumptions (Creswell, 2003). When considering through which methods to answer their social research questions, scientist often use the parameters of ontology and epistemology as a guideline for their process (Braun and Clarke, 2013). Yet it should also be recognised that the questions pursued to answer by the research are, at least in part, influenced by the researchers unique set of believes and understanding of how the world functions. It is influenced by how a researcher perceives reality and truth. As Ritchie, Burns and Palmer (2005) argue, paradigms are expressions of how we believe the world operates and our considerations to what is important. For some this will mean affirming the absolute truth (positivism), in a way only that what can be seen is true. For others feminism or symbolic interactionism, or anti-positivism, has a more important influence on developing our knowledge and filling the gap of our questions (Duke and Malette, 2011). Quantitative methodologies rely on positivism, with a realist and objective approach. The research method should be generalisble, independent of any outside influencers. On the other hand, qualitative methodologies, using a constructivist ontological position, are trying to understand the different ways in which reality is perceived (Hesse-Biber and Leavy, 2007). Here, the main approach is interpretivism, aiming to understand meaning of the phenomena being investigated on a more subjective basis. Research following an ontological or empiricist path would consider factual experiences as the basis of knowledge. Although traditionally researchers would “assign” themselves to one of these streams and follow either a

quantitative or qualitative methodology, more recently advantages of using a combination of both are being advocated (Feilzer, 2010).

Within the phenomenographic tradition, a student's approach to learning is their own and what they learn comes from their own perspective. In contrast, the normative paradigm considers that the behaviour is a response to external environmental stimuli and human behaviour can be validated by considering the collective which is external to the person (Yau-Kay, 2003). Hesse-Biber and Leavy (2007) argue that the most suitable method that data is obtained should be part of the research strategy adopted by the researcher. As a researcher, I have traditionally followed a positivist approach; however, in more recent years, in particular those leading up to this thesis, I have learned the value of using qualitative methods, especially in social research. I believe that to understand the true student perspective and the extent to which assessments influence their learning, we need to hear the student voice. The orientation of this study is set within an "interpretivist paradigm" as it aims to understand learning from the perspective of the students in their natural setting (Saljo, 1988) For this research, I felt it was important to gain an understanding of all the contributing factors on how our students learn and retain the knowledge gained. Therefore, this study combined elements of empiricism and interpretivism. Although it may be more inclined towards the interpretive approach as the study mainly focuses on understanding approaches to learning from the perspective of the student, it contains elements of the empiricism approach explaining some of the behaviour and seeking explanations of the causes of it. As it was not possible to hear the voice of all students, I decided to mix methods, aiming to get the most comprehensive answer to my questions as I saw possible. The first part of the study considered statistical data on the students' attendance, attainment and engagement records for three different modules taken in the autumn of 2015. For the second part, questionnaires were used to understand the learning approaches employed by the students and how the cohort felt about learning through different methods of assessment. As it was expected that the students learning approaches may be influenced by the context of their studies, in the third part of the study interviews to collect qualitative data were employed to understand the variables present in the learning context from the students' viewpoint and to discuss possible influencers on retention of knowledge. As cited by Cohen and Manion (1994, pg. 10): "Social scientist should make use of both quantitative and qualitative methods and make use of the most valuable features of each". Furthermore, the use of both methods also allows for triangulation, or convergences of results and is a means of enhancing both the internal and external validity of the study, reducing the possible bias of the reality portrayed in the research picture (Cohen and Manion, 1994).

3.1.3 The Context of the Study

This study took place in one of eight schools in a city-based modern University, which will be referred to as University A. Table 2 provides an indication of the student demographics within the University in comparison with the sector.

Table 2: Student Profile of Case University Versus Sector. Source: OFFA, 2018

Sector students	University A.
71.4% under 21	71% are OVER 21
7% full time UG have children	17% full time UG have children
56% work alongside studying	84% work alongside studying
66% are from high participation backgrounds	47.5% are from low participation background
70% have 280 plus UCAS points	29% have 280 plus UCAS points
79% are white	56% are BME
73% have moved away from home	52% live at home

The college has various FdA and BA business courses which focus on the service industries, namely hospitality, events, aviation and tourism (HEAT). The courses are closely associated with their profession and throughout their studies students have the opportunity to attend industry guest lecturers and take part in industry visits. For the duration of their degree course, students attend 18 modules. The four different disciplines each have their own modules and course teams also "share" six core modules. These are generic business modules delivered to all students. The students participating in this study had all attended those core modules and the lecturers interviewed, have all been module leaders of core modules. Across the case BA, a range of assessments methods take place, which include but are not limited to:

- Individual essays
- Individual reports
- Individual and group presentations delivered in person or online
- Practical exams
- Theoretical exams
- Work portfolios
- Industry projects
- Online blogs
- Phased assessments (BLPAS framework).

All students on the case BA have the option to take a placement at the end of their first semester at level 5, returning to their second semester level 5 studies one year later and, as such completing their course within four academic years.

3.1.4 Research Design

In order to examine the student experience of assessment as a tool for learning in higher education, this study adopted a mixed-methods approach. It incorporated a qualitative approach, represented by the interview and focus group method, into an integrated research design with a sample survey component. Figure 5 presents an overview of the methods adopted for this study.

Figure 5: Overview of Methods Adopted for this Study

The instruments of collecting data were a combination of attainment and engagement records, a closed-question survey, seven interviews and one focus group. The interviews and the focus groups followed a semi-structured outline. A copy of the survey questions can be found in Appendix A; copy of the interview questions may be found in Appendix B and a copy of the focus group questions is available in Appendix. C.

Attainment and engagement records from student grades at level 5 (second year, first semester) students who studied this level in the autumn semester of 2015 were collected and analysed for the three

modules: Managing people in practice, (MPIP), Accounting and Finance (AFF) and Sales and marketing (SM)). Each of these modules has a different assessment method with a clear overview demonstrated in table 3. MPIP follows the BLPAS framework, with weekly tasks submitted for formative feedback on a class OneNote notebook. AFF has an exam at the end of the semester and the (SM) module has two 1500-word essay assessments.

Table 3: Methods of Assessment for Case Modules

Module	Assessment
Managing People in Practice (MPIP)	Phased assessment with weekly task submitted on OneNote
Accounting and Finance (AFF)	Exam
Sales and marketing (SM)	Two x 1500 word essay.

The student cohort who completed the above-mentioned modules were issued a questionnaire in the spring term of 2018 (26 months after completion of the modules including a placement year). The questionnaire was an adaptation of Gibbs et all (2014) "Assessment Experience Questionnaire". Gibbs and Dubar-Goddett (2007) argued that the questionnaire makes it possible to identify which characteristics of assessment environments are associated with positive or negative learning responses.

Students were then invited to participate in interviews and seven students volunteered. The semi-structured questions were developed following the review of the literature to help answer the research questions:

1) Which learning approaches do students take to completing different assessments and how does this potentially affect knowledge retention from the students' perspective?
2) To what extent do different assessment strategies (exams, essay or BLPAS) encourage long term knowledge retention from the students' perspective?

They were formulated in a way to facilitate open discussion and with the aim to avoid the restriction of in-depth data collection.

A focus group was held between the three lectures who lead on the modules discussed. The purpose of the focus group was to evaluate their consideration of learning approaches and knowledge retention when designing assessment strategies.

3.1.5 Target Population and Sampling

Out of the six modules which are studied across the college, two are at level 4, three are at level 5 and one (research methods) is at level 6. As the aim of the study is to have a better understanding of the possible link between students learning approaches and learning retention, the target population was identified as those students who completed the three generic business modules at level 5 (MPIP, AFF and SM) in the autumn of 2015, before they commenced their one-year placement in January 2016. The same 105 students were approached in March 2018 during their research lecture in their final semester and invited to take part in the questionnaire, which considered student learning approaches. The ages ranged from 20-55. The course has 67% female students and 33% male students. Initially, four students from the 88 students who took part in the questionnaire volunteered to be interviewed. The students that volunteered all had good engagement levels and attainment results. I was keen to gain an insight into different student experiences of learning through assessment, including those students who had lower attainment and/or engagement scores. Therefore, I asked those who had volunteered to be interviewed to encourage one or two of their peers to come along to the interview. One student was able to bring two peers each with different levels of attainment and engagement, changing the interview format to a small focus group format. A second student brought one peer with low engagement and attainment records, bringing the total number of students interviewed to seven.

Three lecturers were invited via email to be in a focus group to evaluate their consideration of learning approaches and knowledge retention when designing assessment strategies. The lectures were purposefully selected as they are the module leaders of the above-named modules: MPIP, AFF and SM and would be experienced in managing and teaching the large cross-course HEAT cohorts and had set the assessments for these modules.

3.2 Primary Data Collection

3.2.1 Statistical Data

To provide a fuller picture of the possible learning taking place across the three modules, attainment data of the three different assessments was obtained and compared dating back to the module progress boards in February 2016. The data regarding student grades from L5 students who studied in 2015 was collected and analysed for the three modules: Managing people in practice, (MPIP), Accounting and Finance (AFF), Sales and marketing (SM).

The number of students in MPIP = 103

The number of students in AFF = 108

The number of students in SM = 103

The total number of students whose grade was recorded for this study was therefore 108.

During the interview stage, the wider learning environment was discussed, and it was felt that further statistical data, on attendance records and online engagement, could enrich the qualitative data. (Cohen and Manion, 1994). The attendance data covered the period of students attending the three modules between September 2015 and January 2016. This data was obtained through the universities unique "Students Attendance Measurement" (SAM) system, which records student's attendance in individual lectures and seminars. The reporting functions of the system enabled me to see the different level of attendances for the three modules concerned. Online engagement for the cohort was measured through the universities' "Inspire for Advisors" program which tracks students' attendance to classes, campus and engagement with Blackboard. The online engagement includes the use of the online library, generic study resources and module specific resources.

3.2.2 Questionnaires

The questionnaires used in the third stage of the research comprised the Assessment Experience Questionnaire (AEQ) developed by Gibbs et al (2007) as identified in the literature review. In the past ten years, the AEQ has since been tested within more than 100 programmes in 40 UK Universities, Australia, India and the USA (TESTA, 2018), evidencing its reliability. To ensure its validity in relation to this study, the questionnaire was developed slightly to include the phased assessment method in addition to the essay and exam method of assessment. The AEQ differentiates student's learning responses and makes it possible to demonstrate how different assessment environments are associated with different student learning responses (Jessops et al., 2012, pg. 16). As revealed in the report written by Jessops et al. (2012, p. 17), the questionnaire contains eight scales, measuring the extent to which assessment:

- Generates student "time on task": whether students feel they need to work hard to meet assessment demands
- Distributes that effort evenly across topics and weeks: whether students feel they can get away with being strategically selective in their studying or feel they need to study all topics on a consistent basis

- Provides sufficient quantity and quality of feedback on student work
- Engages students to use that feedback
- Is perceived as appropriate and measuring understanding rather than memorising.
- Clarifies goals and standards for students
- Results in students taking a surface approach to learning
- Results in students taking a deep approach to learning.

A copy of the survey questions is available in Appendix A. The administration of the questionnaire took place at the end of a level 6 lecture in a module named "Research Methods". I presented the students with a brief history of my own learning journey and a summary of the literature findings. Students did not need to put their name or student number on the paper. I felt that by providing a mini lecture, students may be more motivated to: a) complete the questionnaire, b) steer away from giving neutral replies out of convenience. It should be noted that I had taken the class as a guest lecturer and did not have any further relationship with the students for the remainder of their studies. Administering the questionnaire during class time allowed for conditions to be controlled and for an adequate response rate. Care was taking in both a covering statement and verbally to ensure no student felt compelled to complete the questionnaire.

The sample for the questionnaire was 105 students, the same students whose attainment and attendance data has been compared across three modules taken in the autumn of 2015. Out of the 105 students registered for the module, 85 attended the session and completed the questionnaire. The remaining 20 students where offered to complete the questionnaire via an online platform the University uses. Following various prompts, only three students completed the online questionnaire bringing the total respondents to 88, or an 84% response rate.

3.2.3 Qualitative Methods

As elaborated in many publications devoted to the method, in a focus group, a small number of people are brought together, often purposefully selected and representing a larger target population. During the focus group the participants are encouraged to discuss a set of given topics under the guidance of the researcher or moderator (Lune and Berg, 2017). The coded transcripts of both the interviews and the focus group discussion(s) will be used for qualitative analysis (Saunders and Lewis, 2018). Although quantitative methods like surveys, and qualitative methods, like focus groups and interviews, are derived from different methodological approaches, they may complement each other when combined (Saunders and Lewis, 2018). As mentioned above, participants of focus groups are often selected purposely by the

researcher based not only on their suitability, but also because of convenience and accessibility. Surveys can attract a much large number of participants and, although the answers are often more limited, may be more representative of the wider population and the number of participants in interviews and focus groups within a small research design will always be considerably less than those part taking in survey (Lune and Berg, 2017). As Veal (2018) argues, qualitative research methods are fairy time-consuming both in the method of data collection, through interviews and focus groups which need to be transcribed and then through the textual analysis methods, which in turn often have an impact on the seize of the sample. Finally, it should be recognised that focus groups will never be able to have the same level of standardization as that what is possible in a survey or questionnaire (Veal, 2018). Similarly, quantitative methods lack the flexibility of data collection which is provided by quantitative data collection and the depth, or richness, which qualitative data can provide. Where in interviews and focus groups the researcher can prompt or has flexibility on the questions, this is not the case once a questionnaire has been issued and could leave the researcher with more questions, depending on their own conceptual research priorities.

As the primary aim of this research was to gain knowledge on the influence of assessments on students' cognitive learning, this study can be classified as a fundamental research (Boeije, 2010). Fundamental or pure research has the aim to improve theories for improved understanding or prediction of phenomena (Ezzy, 2002). The conceptual framework provided a basis of understanding of the different perspectives around assessment and learning and the conceptual framework aided in a further understanding of the phenomena explored. The key features and underlying paradigms of qualitative research allowed for inductive thinking and for me to interpret the experiences and viewpoints of the students and lecturers participating.

3.2.4 Interviews with Students

The semi-structured interview was chosen as it allows the researcher to obtain information about personal feelings, perceptions, emotions, environment of learning and in particular approaches to study and assessment, and the students' perception of their learning since the module took place (Lune and Berg, 2017). The interviews took place during April and May 2018.

While administering the questionnaires, students were asked to put themselves forward for interviews. Four students put themselves forward, listing their student numbers. The student numbers were cross-referenced against attendance and attainment data. Unfortunately, those with lower attainment records had not volunteered themselves for interviews. To ensure their voices were heard, I asked the volunteers to ask their peers to join the interview, giving it more the structure of a focus group. Two

original volunteers were able to recruit more participants, creating one focus group of three and one focus group of two. Table 4 provides an overview of the students participating in the interviews:

Table 4 Attainment, Attendance and Engagement of Students Interviewed

Student	Attainment to date:	Average attendance:	Engagement on Blackboard:	Age:	Sex:
1	2.1	Very High	Very High	35+	F
2	First	Very High	Very High	20	M
3	2.2	Moderate	Moderate	21	M
4	2.2	Low	High	21	M
5	2.1	Moderate	Moderate	22	M
6	Third	Moderate	Low	22	F
7	2.1	High	Moderate	24	F

All interviews were conducted in a meeting room at the university campus. The meeting rooms were comfortable with sofas, allowing for a relaxed atmosphere. After some initial small talk, the interviews began, all lasting between 45 minutes and one hour. The interviewees were encouraged to provide a small use examples from their studies but were asked not to name specific lecturers or peers. As most modules at the college are run by teaching teams, naming the module was approved. Questions were a combination of those presented by the TESTA framework and those developed from the literature review considering learning approaches and possible links to retention of learning. A few examples of the questions are listed below with a full outline available in Appendix B.

1) Tell me about the type of assessments you have had on the course?
2) Does the feedback you receive help you learn for future assessments?
3) Do you feel you retain more of topics in which you have a natural interest?
4) How do you know what you are supposed to be doing for an assessment and if you are going to pass or fail or do well?
5) Is there a possible relation to retention of learning and type of assessment?

A copy of the interview schedule with the students is available in Appendix D.
During the interview special attention was given to phrases or words students used which could be linked to “deep” learning, “surface” learning or “strategic” learning. A student with a deep approach to learning

strives for understanding and is therefore interested in the assessment (Entwistle and Peterson, 2004). A surface approach is outcome-oriented in which the student would aim to minimise the effort put into an assessment, for whichever reason they may have. However, they are also focused on minimising the results of the low effort, or the consequences of their minimal input (Duff et al., 2003). Strategic learning utilises study skills, time management and assessment criteria to achieve high grades but is not intrinsically motivated to have a deep understanding of what is learned (Sutton, 2016).

3.2.5 Focus Group with Lecturers

The relevant module leaders were invited to join a focus group to gain an understanding of how far they aim to provide deep learning and knowledge retention through different assessment strategies. The focus group took place in the same meeting room on campus. Although the module leaders were purposefully selected in relation to the modules identified for this study, I felt the diversity among them brought added value. Senior Lecturer A is a female who has been in the profession for over 25 years. Senior Lecturer B is a male who has previously worked in industry before joining a similar city University eight years ago and the current institution four years ago. Lecturer C is an experienced lecturer transferred from an Indian institution and completed her PGCERT last year. The questions aimed to allow the teachers to freely express themselves on their teaching approaches, their understanding and views on learning approaches of students and the way they assessed. Some examples of the guiding questions are listed below with a full outline available in Appendix C.

1) What is your understanding of the terms surface and deep learning?
2) How did you know your students understood your subject?
3) How did you feel the students engaged with the subject?
4) Which method of assessment did you employ? Do you feel this stimulates deeper learning? Why?

Prior to the scheduled focus group, I piloted these and other questions with an unrelated senior lecturer to ensure I would not influence the discussion with my own ideas on the subject.
The focus group lasted two hours.

Pilot study.

A senior lecturer who was unrelated to the modules considered, was contacted when drafting the questions for the lecturers' focus groups. Although everyday life, both professionally and personally, provides opportunities to "interview" or ask questions to the person you are with, or students in a class;

I wanted to ensure that when moderating the focus group with peers, I would do so with a correct balance of influence. At the start of the pilot, my peer had a fair idea of my research and of my objectives, but I did not share my opinion of what I learned from the literature and data collected so far. It was reassuring to find that her answers to my questions seemed to come natural, based on her viewpoints and experiences and not influenced by my own thinking. In addition, by piloting the questions with another peer, I was able to time the different topics covered whilst ensuring I would include enough latitude for spontaneous discussions.

The interview questions for the students were piloted with a recent graduate. This pilot took place during a video conference, using the platform "SKYPE". During this session I wanted to ensure that the questions I had drafted would not be too complex and be easy enough to understand for the interviewee. In addition, although I was expecting to occasionally probe the interviewee for answers during the semi-structured questioning, I did not want to be leading. In reviewing the audio record of the pilot interview, I did realise I often asked the interviewee "Why?". In other words, when she had answered a question in moderate detail, I would then ask her "Why is that?" or "Why do you feel that way?". Lune and Berg (2018) call this affectively worded questions which may result in the interviewee experiencing a negative emotion, as if being doubted or negatively questioned, and that this may lead to the interviewees not answering following questions completely or even accurately. Reflecting on my behaviour and conducting the pilots ensured I was confident with the questions I asked in the focus group and student interviews. In addition, it helped me during the sessions to maintain control without leading the answers.

3.3 Method of Analysis

To answer the research questions, various methods of analysis were used to gain an understanding of students' experiences of learning, assessment and retention of learning. Analysis was developed from cross-checking historical quantitative data, quantitative data derived from the questionnaires and interview and focus group data. Conclusions were drawn by comparing the results of this study with existing literature.

3.3.1 Analysis of Questionnaires

Each item of the adopted Assessment Experience Questionnaire was subdivided into scales as recommended by the TESTA framework. Software packages like *SMARTPLS* were reviewed and compared on the detail of analysis possible. However, as I am experienced in Excel, this platform was chosen to create a model which calculated the approach to learning per student. In order to find a possible

relationship between the cohort approaches to learning and possible retention of knowledge correlation analysis were carried out with the data available on attainment and student engagement.

3.3.2 Analysis of Interviews and Focus Groups

In order to understand the students' experiences with assessment for learning and their possible relation to knowledge retention, interviews and focus groups were held with both students and relevant module leaders. Each session was audio recorded and transcribed. In total, the transcriptions comprised approximately 90 pages and coded an example of a transcript can be found in Appendices F and G. Each transcript was read in detail to identify themes, issues and patterns. A thematic interpretative approach was used throughout the analysis process. All data was coded using the software Nvivo, measuring both the relevance and depth of a theme for each participant and their perceived sentiments when talking about it. The key themes that emerged in this process were:

- Assessment type
- Learning approaches
- Feedback
- Lecturer influence
- Learning environment
- Learning from peers
- Knowledge retention
- Learning through assessment
- Other priorities.

3.4 Assessment of the Research

Baumgarten (2010) and Leavy, (2014) argue that conducting qualitative research will be challenging throughout each part of the process. The design itself is dependent upon finding participants who are firstly willing to participate in the study and secondly open enough to provide to share their, often sensitive, experiences. Qualitative research is therefore not based on the more traditional believes about reality and does not lend itself to concepts such as validity and generalisability. Instead, its phenomenological paradigm is formed around concept such as credibility, transferability and dependability (Atkinson, 2004). The aim of any qualitative study is not to create generalisable results but to find rich, in-depth data which helps us understand the environment of the research (Ritchie et al, 2005; Sarantakos, 2005; Klenke, 2008). Therefore, although a qualitative study often has a relatively small

sample size, as does this one, the focus should not be on this. The theoretical underpinning of this study allows for an in-depth interpretation and therefore understanding of that was is being said.

There are several strategies to enhance the credibility and dependability or trustworthiness of qualitative studies (Saunders and Lewis, 2018; Veal, 2018). Credibility is assessed in terms of whether the findings are credible given the data presented. Strategies suggested by the literature to enhance credibility include triangulation and adequate engagement in data collection (Lune and Berg, 2017). In this research, I have ensured appropriate engagement using multiple methods and sources to collect data covering a two-year period and a relatively large sample (88/105 students) of maximum variation. There are also some debates associated with qualitative interviewing. While flexibility is an advantage of obtaining qualitative data, this also leads to issues of reliability. Any research instrument employed by a qualitative study should produce the same data time after time. In interviewing, this can be achieved by using reliable and consistent questions (Denscombe, 2007). It has been noted that it is more difficult to adhere to standards of reliability in a qualitative research due to elements of interpersonal interaction. Baumgarten (2010) argues that a studies reliability may be affected through low levels of standardization. However, allowing other researchers, first in the form of supervisors and then in examiners, to scrutinize the method of data collection and analysis will help to transform the reliability into dependability. These factors of transparency can hugely improve the considered biased nature of qualitative research (Atkinson et al., 2004).

This study conducted the interviews in professional environments and audio-taped them with the intent of creating bias-free transcripts.

Silverman (2000) argues that bias in interviews is almost unavoidable due to the characteristics of both the interviewer and the participants. Nick (2010) has argued that students may not give an accurate picture because of the power relationship between the researcher and the student and may be inclined to say what they feel the interviewer wants to hear.

In this research careful consideration was given to these points. Final-year students, in their last semester of study, were chosen to ensure both the participants and me that there would not be a student/tutor relationship in any of their further studies. The questions were designed in such a way to avoid the participant anticipating the “favoured” answer. Prior to participating in any element of the research, each participant was asked to sign a consent form (Appendix G) allowing the researcher to use the recorded data. Students participating in the survey were unidentifiable, and where they had chosen to disclose their identity either by name or student number, this was removed from the form before analysis commenced. Anonymity and confidentiality were preserved by assigning a pseudonym to each participant in the interviews. The students who participated in the interviews were in the final semester of their studies and were not taught, tutored or supervised by me during that semester. In addition to

preserving their anonymity in the final write-up, the students will have left the University at the time of publication. Duke and Mallett (2011) argue that recording and then later transcribing in interview allows the interviewer to focus on what is being said and possibly prompt with further questions instead of focusing their attention on taking notes. In addition to focusing during the conversation, the transcriptions also helped me ensure accuracy and allowed for thematic analysis. And as Duke and Mallett (2011) further argue, it aided me in choosing the material which was relevant for the study when writing up the findings. As suggested by Merriam (2009), I used semi-structured interviews which helped the participants express their views and experience in their own way in addition to allowing me more flexibility on the questions depending on the answers provided. According to research, in this lies the essence of an in-depth interview (Klenke, 2008). Similarly, the focus group with the lecturer was audio-taped for accuracy and later transcribed. Anonymity and confidentiality were preserved by assigning named pseudonyms for each participant. I acknowledge that, once the study is published, the identity of the lecturers could be narrowed down through locating the researchers' place of work and identifying colleagues. Nevertheless, it should be noted that those lecturers who participated are no longer the module leaders of the modules identified, and the modules have changed considerably since the delivery in autumn 2015.

An interviewer may have pre-conceived opinions which may have been part of their motivation to conduct their research and have been further influenced by the literature they have studied. An interviewer might therefore perceive mistaken perceptions of what the respondent is saying in order to support his or her notions. In addition, Fielding (2012) argues that interpretations from the participants may be different to those of the researcher as the researcher will interpret data from their theoretically informed position. Some researchers (Hsieh and Shannon, 2005; Ceci and Iubattie, 2012) believe that when conducting qualitative content analysis, some subjectivity is unavoidable. One method of validating the possible subjectivity which may emerge in a research design and by coders is to conduct a multi-coding exercise. In this method, multiple coders review a transcribed text and if they arrive at the same outcome than this may be considered evidence that the interpretations of the individual coder are valid. Consequently, a peer of the Ed.D. programme was approached and asked to code one of the interview transcripts. All identity indicators were removed from the transcript, including any references to the students' background, attainment and engagement data. Although the peer was familiar with the generic aims of this study, they did not know the specific research questions. The peer followed a manual open coding system and then highlighted specific themes which came across in the interview. Granehim and Lundman (2004) argue in favour of the dialogue between coders to agree on a method of data labelling. Even so, it was decided that the second coder worked independently to ensure the validity of the remainder of my coding. The inter-coding process demonstrated vast similarities between me, the

primary coder, and the secondary coder with the same themes identified and similar frequencies. In addition to the testing the validity through an inter-coding exercise, I used Nvivo, which is argued to make research more ordered and reliable (Saunders and Lewis, 2017).

3.4.1 Limitations and Challenges

The research design and its analysis are limited in several aspect. Firstly, although it was a relatively large cohort of 105 students with a high response rate of 84% for the assessment experience questionnaire, and corresponding historical data on attainment and engagement, only seven students participated in the interviews. This, and the specifications of the Case BA, limits generalisation in other schools of the University and, therefore, other universities in the UK. The second limitation derives from the fact that the study only covered students from one cohort, at the end of their studies. As the study is exploring student experiences of assessment and knowledge retention, it might have been more appropriate to follow the students for the duration of their degree course to see if their experiences changed and to perhaps measure their perceptions of knowledge in different ways. There were, however, limitations to accessing student data whilst also being employed by the college as their tutor in all three years. Therefore, only those students who were completing their degree course and who would not have any further student-tutor relationship with myself could be approached. A solution may be to complete a similar study on a longitudinal basis, independent of a student-lecturer relationship. Linked to this is the third limitation, which is related to the unequal power relationship that exists between the student interviewee and the researcher interviewer. Although this relationship existed in the past, it was not present at the time of data collection, and great care was taken in ensuring students understood that there would not be such a relationship in the future. Nevertheless, students might have been inclined to say what they think I, as the researcher, wanted to hear, rather than expressing their true opinions. Finally, caution should be given to causal linkages and directionality of influence when making inferences (Saunders et al., 2016) For example, the students' experience of the learning environment may be influenced by how the student has been influenced by their past perceptions and believes. Therefore, it might be difficult when making correlations between cause and effect (Peelo and Wareham, 2002) As the qualitative limitations of interpersonal dialogue where acknowledged at the start of the research design, the interviews were digitally recorded with the intention of creating bias-free transcripts to be analysed using the NVIVO software and further tested by an independent intercoder. I have been careful to use a reflective approach throughout the research, with the aim of being critical off myself as a researcher (Merriam, 2009). Throughout the research, I have clarified my past experiences, assumptions and motivations as well as the underpinning literature, to allow the readers of this study to better

understand how I arrived at the findings. If analysed by a different researcher, considering the framework developed from the literature, similar results are expected.

3.4.2 Ethical Considerations

Throughout the research undertaken; thorough attention has been given to ethical procedures. Perhaps one of my first concerns was insider research. It was important to me that those students who participated in the study would feel safe in proving honest data. As will be discussed further in the sample section, I ensured I selected students who were close to graduation and whom were not active students of mine at the time of data collection or thereafter. Each of the students and lecturers participating in the research were provided with consent forms. These forms outlined the reasons for undertaking the research and explained their right to withdraw from the study at any point. This as further explained at the start of each interview and at the start of the focus group. A copy of consent form is available in appendix I. Each participant was also offered to review the full transcriptions of their interview and focus group and within the reporting of the findings, pseudonyms were used to help preserve their anonymity. Although Floyd and Arthur (2012) argue that it may be challenging for the insider researcher to preserve institutional anonymity, and perhaps even meaningless at a time when it is so easy to trace a researcher work environment with a little online investigation, I still decided to take on this challenge. It is expected that examiners of the study are likely to identify the institution and although I teach on five different undergraduate courses within our University, examiners may even filter down their investigation to the BA course this study has examined. However, examiners are trusted to keep this information confidential. Fellow academics reading the published thesis may also be able to identify the University. However, the use of pseudonyms for the participants should aid in preserving their anonymity. At the time of publication, students participating in the study will have graduated and although possible lecturers who participated could be identified, this is highly unlikely since the modules discussed are no longer running and the school's academic team exceeds 50 members.

The Dean of the school was asked for permission and consent at the point of the research proposal and prior to the commencement of quantitative and qualitative data collection. In addition, prior to undertaking any research, an online course in data protection, provided by the University of Reading, was completed. A copy of the completion record is available in Appendix G and the consent form is available in Appendix H. The participants were each given consent forms, outlining the reasons for conducting the research and it was clarified with them both within these papers and in person that they had the right to take part or withdrawn from the study at any point. To preserve their identity; pseudonyms

were assigned to participants. Each participant was offered the opportunity to check their transcripts (Baum and Clarke, 2013).

3.5 Conclusion

This chapter has explained the research process, the strategies of inquiry, the research design and methods of data collection and analysis. A mixed-methods approach was adopted, and reasoning was given in this chapter. In addition to historical attainment and engagement data, the assessment experience questionnaire by Gibbs et al. (2007) was developed and given to a final-year cohort studying for the Case BA. Seven students of this cohort volunteered for interviews and were questioned on their learning, assessment and knowledge experiences based on findings from the literature and linked to the research questions. Three experienced lecturers who led on three specifically relevant modules for this study took part in a focus group adding extra depth to the overall student experience data. The chapter provided the measures that I have adopted to ensure ethical standards have been employed. Furthermore, the credibility and trustworthiness of the research have been discussed and its limitations considered. Chapter 4 will focus on the analysis of the quantitative data obtained from the student attainment and engagement data, the assessment experience questionnaire and compared to the analysis of the data obtained from the interview and focus group. Chapter 5 will present a discussion of the analysis when considering the literature findings and will make recommendations for future practice.

CHAPTER 4: Findings and Analysis

This chapter reports the findings of the study. It will follow the structure as presented in the methodology chapter, starting with the statistical data, followed by the quantitative results gained from the questionnaire and then the qualitative results from the discussions with the students and lecturers. Each section will contain a degree of analysis, which will be further discussed in the final part of this chapter, where the findings will be cross- compared.

4.1 Profile of the Case University

The "Office for Fair Access (OFFA) states that the case University is unique in that almost 90% of the students meet at least one of the seven criteria of under-represented groups in higher education and as many as a third of its students meet three of them (OFFA, 2018). Table 5 presents the profile of the Case BA student in comparison to the data of the University and national sector student data. The student profile of the case study university reflects that it is a London based modern University. The number of mature students (aged 21 and over on entry) is 71%, almost double the sector average of 41% (Offa, 2018). Black and minority ethnic groups account for 55%, compared with 23% in the sector. OFFA states that the University has one of the highest proportions of state school educated admissions in the UK (98%). More than 90% of the students are considered working class by OFFA, with 23% having dependants (compared with 7% in the sector). More than half of the students are from the first generation in their family to participate in Higher Education (HEFCE, 2016). Almost 10% come from low participation neighbourhoods and 60% from areas with above average levels of multiple deprivation. In 2015-16, 60% of the universities undergraduate full-time entrants were from low income backgrounds with the vast majority of these students coming from households with an income under £25,000. Almost 90% of the students meet at least one of 7 criteria of under-represented groups in higher education (BME, mature, first generation in HE, disability, low participation neighbourhood, care leaver and socio-economic) and a third of the students meet three of them. Nationally, one-third of students commute to university from their guardian or own residence, at the case study university this is 65%. Finally, 10% of the student population come from EU countries with below EU average GDP per capita (Offa, 2018).

Table 5: Student Profile of CASE BA in Comparison with National Sector and University

	National/Sector	Case University	CASE BA
Gender	56% F; 44%M	61% F, 39%M	65% F, 35%M
Mature Students	41%	71%	62%
Students with Dependants	7%	23%	19%
First Generation	48%	54%	57%
Commuting from permanent home	33%	65%	81%
BME	23%	55%	74%

It is important to acknowledge this data within the context of this study, as research has shown that students who meet one of the seven criteria are more likely to drop-out of their degree course. Commuting students can sometimes not afford to attend their lecturers. Those who have caring responsibilities miss lectures because they have to provide emergency care. Others, often on 0-hour contracts, have to prioritise the opportunity of paid work over their studies. Some students cannot study at home because they haven't got wifi, because it is not safe (family members do no support them) or because it is too crowded. If students meet more than one of the seven criteria, they are five times more likely to drop out of their degree course than students who do not meet any of the criteria. These students in particular need extra support and encouragement for the duration of their course. They need easy and (preferable free) access to resources, study support and counselling services. For students in these situations to succeed, they require an environment where academics are aware of the challenges the students face, and perhaps provide additional support with assessments in the form of formative feedback.

4.2 Findings from Statistical Data

This study questions if different assessment types lead to significant differences in attainment results from the student perspective. For the purpose of this study, three modules were identified, which are attended by all students in the school at level 5, before they commenced a one-year placement. The modules are: Managing people in practice, (MPIP), Accounting and Finance (AFF), Sales and Marketing (SM). Each of the module has a different assessment method. MPIP follows the BLPAS framework, with weekly task. AFF has a scheduled end of module exam and for the SM module students completed an

essay. Due to possible re-takes, the module Accounting and Finance had a slightly higher student intake then the modules "Managing People in Practice" and "Sales and Marketing", as presented below.

The number of students in MPIP = 103

The number of students in AFF = 108

The number of students in SM = 103

The attainment data of the three modules as reported during the module progress boards in February 2016 has been put together in the Table 6. These assessments were completed by level 5 students who studied the modules in the autumn term of academic year 2015/2016.

Table 6: Method of Assessment versus Attainment Gained

Module	Method of Assessment	Number of Students	Mean	Median
MPIP	Phased Assessment	103	68.4	67
AFF	Exam	108	49.81	52
SM	Essay	103	54.22	56

The attainment data reveals higher cohort marks for the MPIP module and for this reason it could be argued that the phased assessment is the most effective method of assessment, as discussed when this method of assessment was first tested and evaluated in 2011 (Kanuga and Visram, 2011). The interviews with the students will contribute towards an understanding of how they feel assessment types might influence attainment; however, there is also a statistical element that has not been previously considered, which is that of student engagement in the sense of participation of learning both in the classroom, the university library and the online learning platform: Blackboard. Through the student ID cards, the University can measure the students' attendance in individual classrooms and visits to the library. The software also records how often the student accesses reading material, checks information on Blackboard and, where appropriate, participates in forums. The different "engagement factors classifies each individual student in an "engagement" category from "very low" to "very high". Table 7 offers an insight into how this data is presented when exported into an Excel spreadsheet. Some columns have been hidden for data protection reasons.

Table 7: Examples of Student Engagement Data

STUDENT ID	Surname	Forenames	QUINTILE	Attendance %	Blackboard %	Turnstile Swipe %	L: Library Item %	SCORE
xxxx	xxxx	xxxx	VERY LOW	33%	21%	4%	0%	25
xxxx	xxxx	xxxx	LOW	47%	9%	9%	7%	30
xxxx	xxxx	xxxx	MODERATE	30%	32%	2%	0%	26
xxxx	xxxx	xxxx	HIGH	78%	66%	19%	12%	65
xxxx	xxxx	xxxx	MODERATE	96%	32%	24%	0%	65
xxxx	xxxx	xxxx	VERY HIGH	88%	47%	24%	0%	65
xxxx	xxxx	xxxx	VERY HIGH	66%	64%	23%	3%	58
xxxx	xxxx	xxxx	N/A	51%	34%	20%	24%	42
xxxx	xxxx	xxxx	VERY HIGH	76%	91%	13%	20%	72
xxxx	xxxx	xxxx	MODERATE	48%	22%	24%	2%	36
xxxx	xxxx	xxxx	LOW	36%	37%	31%	0%	34
xxxx	xxxx	xxxx	VERY HIGH	68%	52%	11%	5%	54
xxxx	xxxx	xxxx	LOW	57%	3%	9%	0%	33
xxxx	xxxx	xxxx	HIGH	77%	51%	25%	0%	60

For the purpose of this study; engagement data was collected for the cohort concerned. Table 8 is a presentation of the engagement data for few individual students at level 5, before their placement year, and at level 6. The data for the entire cohort was amalgamated into Tables 9 and 10, showing the slight change in engagement levels between the time that the students took the three generic business modules and their final year of study.

Table 8: Example of Engagement Change for Seven Students of CASE BA for Four Semesters

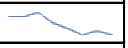
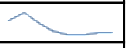
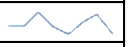
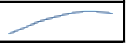
AY 1516 Sem 1	AY 1617 Sem 2	AY 1718 Sem1	Ay 1718 sem 2	max po	track
38	38	41	43	43	
30	27	26	26	43	
38	38	42	40	56	
38	36	35	36	48	
58	53	54	55	59	
17	18	18	17	18	
55	53	55	56	56	

Table 9: Student Engagement Score Semester 1, AY1516

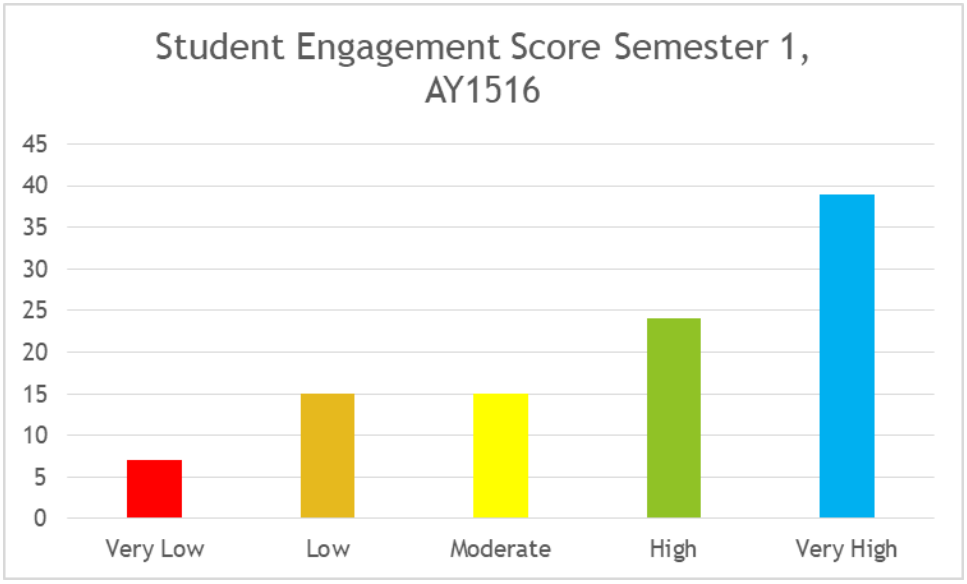
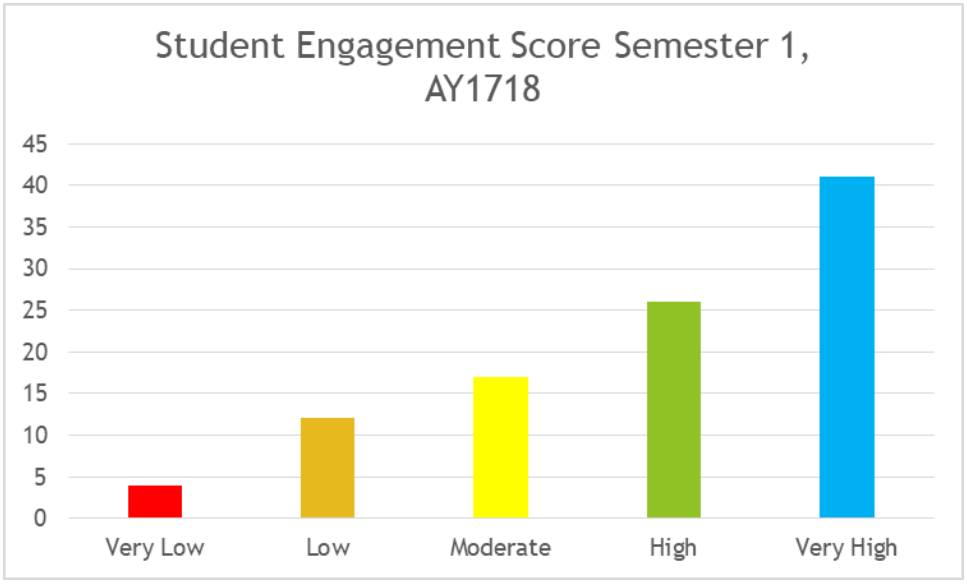


Table 10: Student Engagement Score, Semester 1, AY1718



Overall engagement is high, which is very positive considering the student profile discussed earlier. Comparing the results of the last two tables, it is fair to say that there has been a slight shift within the cohort towards higher engagement. A simple explanation for this could be that the students have now entered their final year of study and are keen to maximise their chances of achieving a higher degree classification. Another reason might be that in their final year of study the students have two optional modules in semester 1. Moreover, these have been selected by the student based on their own interests

and ambitions. Yet, it could be argued that these analyses are mere assumptions, thereby underlining the need to know what students think.

4.3 Findings from the Assessment Experience Questionnaire

To provide an insight into students' approaches to learning, the assessment experience questionnaire as introduced by Gibbs and Dunbar-Goddet (2009). The AEQ version 3.3 (Gibbs and Dunbar-Goddet, 2012) was slightly amended to include the BLPAS method of assessment. The original version has two sets of three questions, one for essay type of assignments and one for exam type of assessments. For this study a third set of the same three questions was added for the phased assessment. The questionnaire differentiates student's learning responses and makes it possible to show how different assessment environments are associated with different student learning responses (Gibss et al., 2012). As recommend by the TESTA framework, data was collected on the types and number of assessments the case students had for the duration of their course, which took place between September 2014 and May 2018. Each section was then compared with the data provided by the TESTA framework of 40 other universities who have completed this exercise in past studies and awarded a "low", "medium" or "high" as presented in Table 11.

Table 11: Types and Number of Assessments in Case Degree Compared with TESTA Universities

Categories	**Case Degree.**	**TESTA comparison.**
Total number of assessments	42	High (40+)
Summative assessments	36	Medium (15-40)
Formative-only assessments	8	Low (less than 15)
Variety of types of assessments	18	High (6+)
% of exams as part of degree	14%	Low (below 40%)
Average timeliness for feedback	15 days	Low (more than 14 days)
Volume of oral feedback	9 hours	Low (less than 15)
Volume of written feedback	12,354 words	High (more than 6,000)

The formative only assessments were part of the BLPAS assessments at level 4 and 5, in two core modules. This means that although when presented in a table it seems that the students get eight formative assessments, these take place in only two out of 18 modules. The volume of oral feedback was based on an estimate made by module leaders during the course committee meeting taking place in March 2018. Module leaders agreed that at level 4 and 5 on average, two-thirds of students sought verbal feedback on draft assignments before the final submission and that they usually receive between 5-10min of oral feedback, or an average of 7.5min per student who sought feedback. At level 6, almost all students sought

feedback before final submission, and the final estimate by module leaders came to 95% of students getting an average of 5min formative feedback per assessment. All module leaders agreed if a class size was 40 of above, individual feedback per student would go down to five minutes. In addition to draft feedback each student receives personal tutoring at level 4 and 5. During these sessions, students discuss draft work with their personal tutor but also the written feedback received on summative assessment. Students are allocated one hour per semester for personal tutoring. Some students take more, and some take less. Logs from personal tutors were consulted and on average students of the case BA receive 48 minutes of personal tutoring per semester, totalling to 192 min. In their final year, students have up to six hours of verbal dissertation supervision, although not all students take this. The average amount of minutes students receive dissertation supervision is 300 min. Based on this information, Table 12 presents an overview of all feedback each student on the case BA receives per modules and then totalling this to nine hours.

Table 12: Verbal Feedback Received for the Duration of CASE BA

Module	Level	Class size	Feedback per class	Feedback per student
1	4	50	50*5m=250min*.66=165	165/50= 3.3
2	4	33	33*7.5=247.5min*.66=163.3	163.3/33=4.9min
3	4	77	77*5m=385min*.66=254.10min	254.10/77=3.3min
4	4	33	33*7.5=247.5min*.66=163.3	163.3/33=4.9min
5	4	33	33*7.5=247.5min*.66=163.3	163.3/33=4.9min
6	4	50	50*5m=250min*.66=165	165/50= 3.3
7	5	31	31*7.5=232.5min*.66=153.45	153.45/31=4.95min
8	5	68	68*5m=340m*.66=224.40	224.40/68=3.3min
9	5	54	54*5m=270m*.66=178.20	178.2/54=3.3min
10	5	31	31*7.5=232.5min*.66=153.45	153.45/31=4.95min
11	5	31	31*7.5=232.5min*.66=153.45	153.45/31=4.95min
12	5	54	54*5m=270m*.66=178.20	178.2/54=3.3min
13	6	23	23*5=115*.95=109.25	4.75min
14	6	40		4.75min
15	6	35		4.75min
16	6	20		4.75min
17	6	40		4.75min
18	6	32		4.75min
			Total draft feedback :	77.85min
			Personal Tutorials at level 4&5	160 min
			Dissertation supervision	300min
			Total verbal feedback:	537.85 or 9 hours

To measure the written feedback, two sample assessments were taken from each module studied for the duration of the degree course. The written feedback in words was counted and totalled. The total

of the three years was combined to the number of 12,354 words of written feedback per student. It is interesting to note that when compared with other institutions who have completed this exercise, that the case students receive a "low" amount of verbal feedback, when, as discussed earlier, these students would benefit from more feedback. This might be explained though by the fact that many of their seminar classes are large. Garlick (2014) argues that the size of a seminar class should not be larger than 25. On this course, almost all classes are larger than 30 except for two optional level 6 modules, which have fewer than 25 students. Yet, as can also be seen, the amount of written feedback is more than double what is considered high by the TESTA framework. Clearly, the markers at the case university feel that the students will benefit if detailed written feedback is provided. Students were asked for their gender and age, which are reflective of the student profile given in Table 3.

Students were then questioned about their degree classification they expected to receive. All data for the questionnaire was put into the online *polleverywhere* software which can present the data of each question in quantities and in graph format as is seen below in chart 1. As can be seen more than 1/3 of the students felt they were on their way to achieving a first-class degree, with an additional 58% believing they would complete their studies with 2.1 degree classification. As can be seen when compared to the actual results, just below in chart 2, the students were fairly accurate when it came to predicting their results. Clearly the students are aware of the methods used for degree classifications and how their own results fit within this method. This is line we Barnetts (2011) description of a strategic learner.

The largest variation can be seen between students *expecting* a 2.2 degree classification and those receiving this. However, this can be the difference between the number of students completing the survey (88) and those being awarded (105). There could be a link between the students who did not complete the in-class survey and their lower degree classification in comparison to those who did attend the session (Allen and Fishwick, 2009).

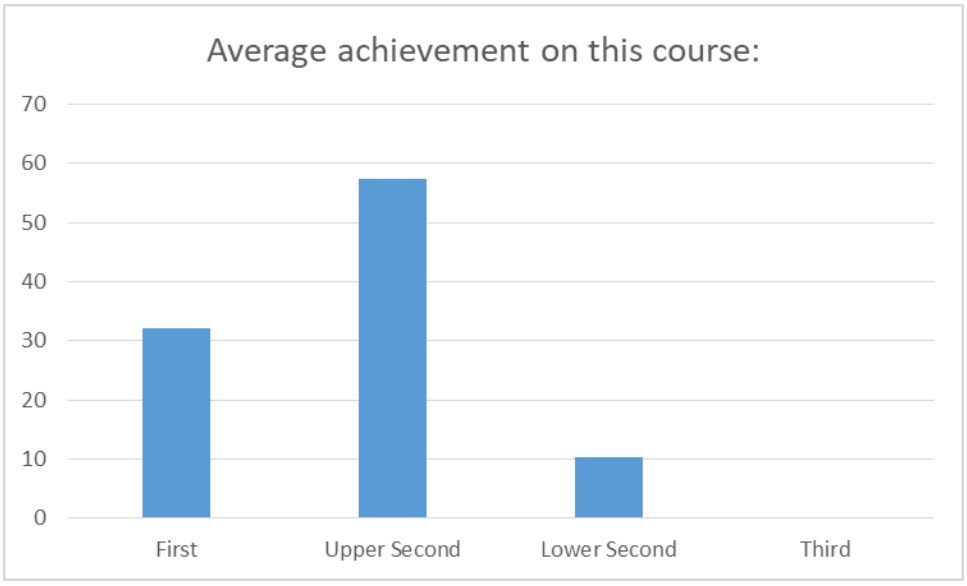


Chart 1: Expected results as predicted by students on CASE BA.

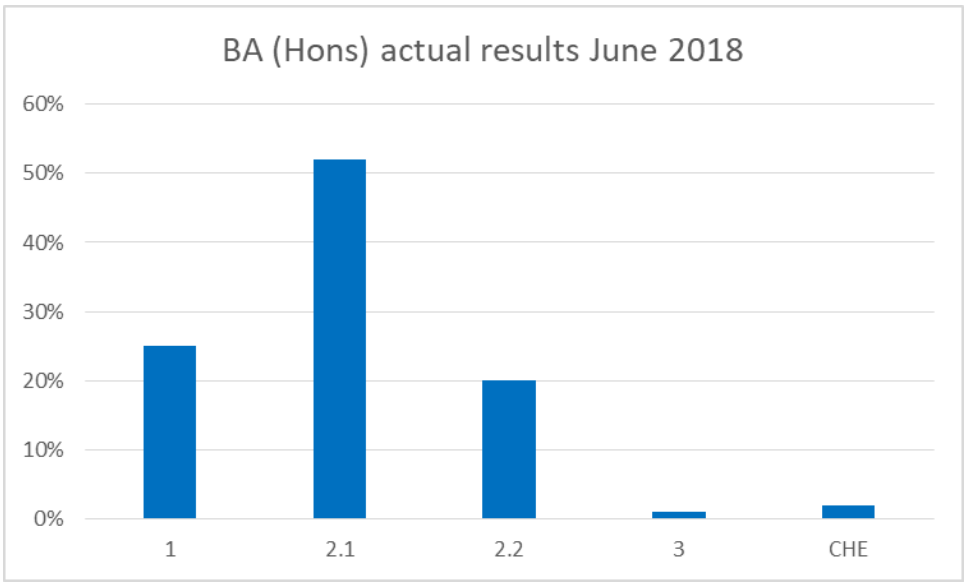


Chart 2: Actual results achieve by students on CASE BA.

Students were then asked about their learning experiences where responses were on a likert scale from 1-5. Following the TESTA framework recommendations for analysis, A “good” score is where students agree or strongly agree with (= and > 4). This applies to all the scores except for “surface learning” where a good score is (= or < 2).

Excel was chosen to input the results of the scaled questions and calculate the mean. Where the TESTA framework has recommended Cronbach's Alpha, this was applied to the mean, giving a result of the cohorts' thoughts on individual questions. A full overview of the calculations is shown in table 13.

Table 13: Full calculations of the data collected via the assessment experience questionnaire

	Questi	SD	D	N	A	SA	Mean	Scale	Alpha	Final					Major		UOF	QoE	CoS	QQF	AA	CGS	SA	DA	LFE	LFP
I used the fe	1	5	10	20	34	19	3.590909	UOF	0.7	2.51363636	5	20	60	136	95	Neutral		2.48									
The feedback	2	5	22	24	27	10	3.170455	UOF	0.7	2.21931818	5	44	72	108	50	Disagree		2.48									
I received ha	3	19	23	20	21	5	2.659091	QQF	0.61	1.62204545	19	46	60	84	25	Disagree					1.74						
You had to st	4	6	30	25	17	10	2.943182	COS	0.85	2.50170455	6	60	75	68	50	Neutral				2.59							
The assessm	5	4	9	32	38	5	3.352273	COS	0.85	2.84943182	4	18	96	152	25	Neutral				2.59							
The way the	6	4	19	27	29	9	3.227273	QOE	0.69	2.22681818	4	38	81	116	45	Disagree			2.32								
It was always	7	9	11	23	29	16	3.363636	CGS		3.36363636	9	22	69	116	80	Neutral						3.29					
I paid careful	8	2	5	17	38	26	3.920455	UOF	0.7	2.74431818	2	10	51	152	130	Neutral		2.48									
The teachers	9	7	10	27	23	21	3.465909	CGS		3.46590909	7	20	81	92	105	Neutral						3.29					
The staff see	10	8	23	33	16	8	2.920455	AA		2.92045455	8	46	99	64	40	Neutral					2.66						
It was possib	11	10	13	39	23	3	2.954545	COS	0.85	2.51136364	10	26	117	92	15	Neutral				2.59							
It was often l	12	10	20	20	30	8	3.068182	CGS		3.06818182	10	40	60	120	40	Neutral						3.29					
On this cours	13	3	15	18	37	15	3.522727	QOE	0.69	2.43068182	3	30	54	148	75	Disagree			2.32								
Too often the	14	7	35	32	11	3	2.636364	AA		2.63636364	7	70	96	44	15	Neutral					2.66						
I didn't unde	15	10	28	23	21	6	2.829545	QQF	0.61	1.72602273	10	56	69	84	30	Disagree					1.74						
Whatever fe	16	5	27	22	22	12	3.102273	QQF	0.61	1.89238636	5	54	66	88	60	Disagree					1.74						
The way the	17	4	28	31	16	9	2.977273	COS	0.85	2.53068182	4	56	93	64	45	Neutral				2.59							
To do well or	18	16	37	20	10	5	2.443182	AA		2.44318182	16	74	60	40	25	Disagree					2.66						
When I'm rea	19	0	6	19	38	25	3.931818	SA		3.93181818	0	12	57	152	125	Agree							3.42				
I usually set	20	0	5	15	43	25	4	DA		4	0	10	45	172	125	Agree								3.88			
I generally pu	21	0	4	16	33	35	4.125	DA		4.125	0	8	48	132	175	Agree								3.88			
I often found	22	2	9	36	22	19	3.534091	DA		3.53409091	2	18	108	88	95	Agree								3.88			
I find I have t	23	2	23	30	26	7	3.147727	SA		3.14772727	2	46	90	104	35	Neutral							3.42				
Often I found	24	2	20	33	24	9	3.204545	SA		3.20454545	2	40	99	96	45	Neutral							3.42				
Doing exams	25	16	18	29	20	5	2.772727	LFE		2.77272727	16	36	87	80	25	Neutral									3.01		
I learnt new t	26	10	13	23	25	17	3.295455	LFE		3.29545455	10	26	69	100	85	Neutral									3.01		
I understood	27	14	16	29	16	13	2.977273	LFE		2.97727273	14	32	87	64	65	Neutral									3.01		
Doing an essa	28	0	3	21	42	22	3.943182	LFES		3.94318182	0	6	63	168	110	Agree									4.02		
I learnt new t	29	0	5	12	39	32	4.113636	LFES		4.11363636	0	10	36	156	160	Agree									4.02		
I understood	30	0	3	20	36	29	4.034091	LFES		4.03409091	0	6	60	144	145	Agree									4.02		
Doing a phas	31	6	1	18	45	18	3.772727	LFP		3.77272727	6	2	54	180	90	Agree										3.76
I learnt new t	32	6	3	19	44	16	3.693182	LFP		3.69318182	6	6	57	176	80	Agree										3.76
I understood	33	5	2	16	45	20	3.829545	LFP		3.82954545	5	4	48	180	100	Agree										3.76

All individual question results where then grouped into their scales to calculate the final score as can be seen below in Table 14., using abbreviations for the individual themes of the scheme.

Table 14: Mean of Individual Question Results for CASE BA Cohort

Scales	QoE A=0.69	CoS A=0.85	QQF A=0.61	UoF A=.07	AA	CGS	SA	DA	LfE	LfES	LPA
Case BA	2.3	2.6	1.7	2.5	2.7	3.3	3.4	3.9	3.0	4.0	3.8

The CASE BA has the lowest scores of the sample on Quantity of Effort (QoE), Quantity and Quality of Feedback (QoF); Use of Feedback (UoF); and Appropriate Assessment (AA). These are the four scales that correlate most highly with overall satisfaction in all the data. Although written feedback was double that of the highest volume of written feedback received by other institutions, the turnaround

time of 15 working days might have had an impact on how the students feel about the quality and use of feedback (Jessop, 2015). In addition, the large cohort sizes negative impact on the time tutors are able to spend on individual verbal feedback, will have had an impact. The high volume of different assessments and relatively low amount of formative assessment could explain the low scores further. The Coverage of Syllabus (CoS) also has a low score of 2.6, indicating that the students feel that they have to put in consistent effort on a weekly basis across all topics, and have a heavy academic workload to achieve their desired results. This is similar to the score on "Quantity of Effort" and both indicate that the student feels dissatisfied with the amount of work they need to put into their studies. On a positive note, the students seemed more inclined towards a deep learning approach (DA) which is also in line with the score of four for learning through essay assessment (LfES) and the more neutral score for learning through exam assessment (LfE) of three. It is interesting to note that although the phased assessment (LPA) scored .8 higher than the exam, overall the score of 3.8 indicate that students do not fully agree that this assessment method aids them in their learning.

The results of the assessment experience questionnaire in combination with the engagement and attainment data provide an insight into the learning approaches of the students of the case BA. They demonstrate that a vast majority of students is committed to and engaged with their studies and are inclined to adopt a deep learning approach. Their results confirm their commitment. Yet, the data also reveals that the students feel they need to study all topics on a consistent basis and that they are not always support with this by their tutors. It should be recognised though that quantitative data does not provide a full picture. This study seeks to understand the student *experiences* of assessment for learning, the student *experience* of learning approaches, the lecturer influence on assessment and the students *experience* thereof and the student *experience* of knowledge retention through different forms of assessment. Therefore, it is imperative that the student voice is heard.

4.4 Findings from the Qualitative Data

4.4.1 Introduction

To fully understand the student experience of the links between assessments and attainment, assessments and retention of knowledge and learning approaches of student, 7 students were interviewed. A thematic interpretative approach was used throughout the analysis process (Peterson, 2017) The literature identified key factors, or themes, which consider student learning approaches and possible knowledge retention. The literature also discussed the evolution of assessment methods in higher education and the considerable effort lecturers appear to be putting to in to make these students focused

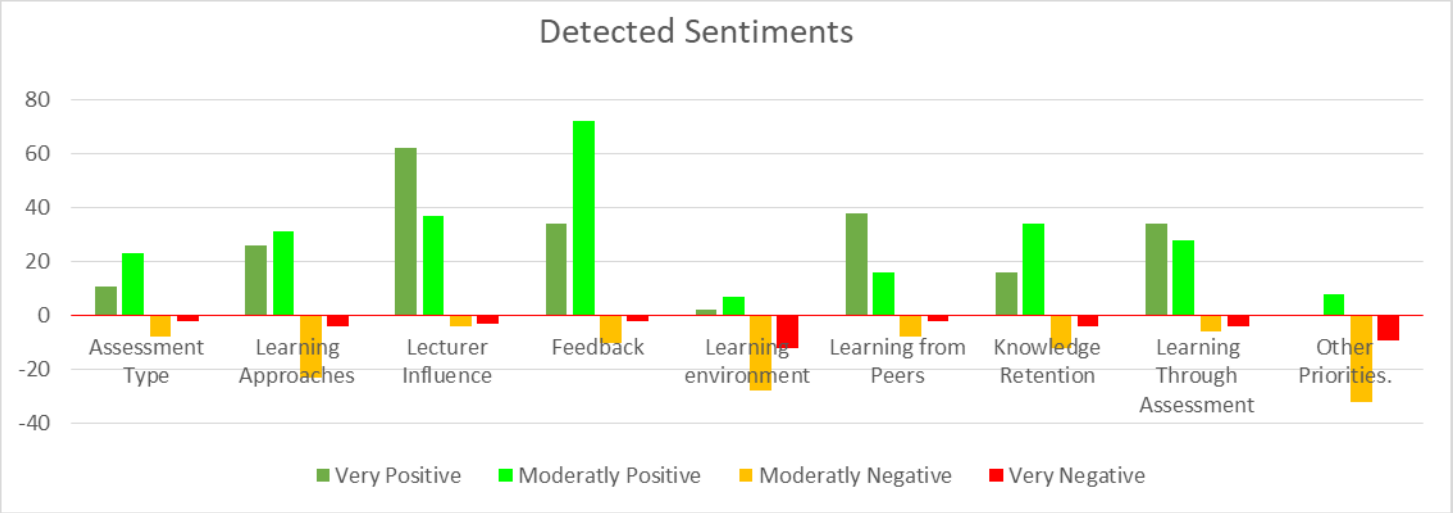
(Lau, 2013). These themes were brought into interviews which were held with seven final-year, final semester students and three module leaders of three core modules which are delivered to all students in the case college, in the first semester of level 5 before the students embark on a one-year placement. All data was coded using the software Nvivo, measuring both the relevance and depth of a particular theme for each participant and their perceived sentiments when talking about it. The coded themes, in order of frequency occurrence, are listed in Table 15.

Table 15: Themes in Frequency of Occurrence

Code	Description	Keywords	References/ Participants
Assessment Type	When the participant mentions an assessment type, for example what their thoughts are on an essay assessment.	Assessment Type (in conjunction) Essay Presentation Exam Phased/weekly task Group work Report Project Portfolio	75/10
Learning Approaches	When the participant discusses independent learning and assessment approaches.	(Independent) learning (in conjunction) Time Strategy/planning Independent reading Library Research	97/10
Lecturer Influence	When the participants mention lecturer influence on engagement, learning approach and knowledge retention.	Lecturer/ Tutor (in conjunction with) Engagement Learning Retention Motivation	149/10
Feedback	When the participant mentions formative or summative feedback.	Feedback Formative Summative Draft	118/10

		Written Verbal	
Learning environment	When the participant mentions the learning environment like classroom sizes, equipment, noise, additional support.	Learning environment Classroom Chairs Computers Noise Online environment Support	49/10
Learning from Peers	When the participant mentions learning that takes place through collaboration or observing peers.	Peers Friends Colleagues Fellows Group Working together	64/10
Knowledge Retention	When the participant discusses retention of learning or retention of knowledge acquired.	Learning retention Knowledge retention Application of learning	85/10
Learning Through Assessment	When the participant specifically refers to learning taking place from the assessment process.	Learning through/from/because assessment/assignment	105/10
Other Priorities.	When the participant discusses priorities outside of studying.	Caring Children Work Travel	51/10

Consideration was given to the sentiments that came across in the coded transcripts. Each time a theme occurred, which demonstrated a particular positive or negative emotion from the participant, this was assigned a sentiment, divided by the Nvivo software as “very positive; moderately positive, moderately negative and very negative”. In addition, a record was made of coded data which did not have an apparent sentiment attached as can be seen in Graph 1, representing the sentiment data.



Graph 1: Detected Sentiments.

To avoid losing the fuller picture, or the context of the coded data, vignettes have been written for each participant as well as a narrative of the verbal sessions, providing the key thoughts of the individual participants.

4.4.2 Student A

Student A, whose pseudonym is Martha, is a mature student from mainland Europe and has two children in secondary school. This is her second degree. Martha has excellent attendance records, engages with all online material and is a regular visitor to the library, both digitally and in-person. In class, Martha stands out as someone who is always on time, sits in the front row and she is one of the last students to leave when a lecture has finished and often stays on at break time. She takes notes throughout the sessions and is confident in asking a lecturer to pause, repeat or explain. When invited she keenly participates in class discussions and can link her views to either personal experiences or literature. She is keen to fully understand the assessment requirements from the first day of class. If "homework" is given she will complete this. Martha ensures she has draft work ready on time and seeks formative feedback on a regular basis, often multiple times for the same piece of work. At the time of the interview, Martha thought she would get a first degree and she was right. Martha's interview lasted 65 minutes.

At the start of the interview, Martha was asked about the different assessment types she had come across during her case BA studies. Very quickly the conversation turned to her favourite type of assessment: an essay or report. Favourite, because, as Martha puts it: "*.it is working individually*". She

goes on to say that she does see the advantage of group work as "*.you obviously get ideas from others*" but there is also. "*the risk that when you present your group work you get asked questions about parts of the work that you didn't prepare, didn't learn or if someone doesn't show up you need to cover their part.* Her final concern is that *".when you are themed in a group, it might be that the other group members do not have the same "expectations" of themselves, or aims for the assignment outcome. Other students might not have the same "high standards*"." Martha mentions the importance of getting good grades and having a first-class degree a total of 3 times during the interview. She has a further 14 indirect references to "*getting the best results possible*" . Her motivation for aiming this high, appears to be intrinsic rather than extrinsic, like securing a better job. Looking back at her first year, when she did not yet understand the grading system, she says: "…*achieving over 70% was not an objective in itself, it was more doing the best I can*". Martha talks about coming to every single lecture, every single seminar because " *You might miss something important*". And not attending is "*not an option*". She clearly has an internal drive, either from fear of how she is being perceived by lecturers: "*Giving the impression that you just don't care, you know, I just can't*", or because of her motivation to pass assessments well: "*I can't not be prepared*" and: "*.you know, I think I'm doing everything right…and for some reason I keep not getting uh, the maximum*". Her drive to do well in her assessments, means she makes full use of any formative feedback available. She feels feedback is essential but mentions some are more in depth than others. Her preference is written feedback as *"you can go back to it, you can't forget it and it is not depending on your interpretation*". Where applicable, she learns from both formative and summative feedback and applies it in future assignments. Once she was unable to receive any formative or summative feedback on an assignment and she looks back at that, feeling it has impacted not only her grade but also her learning. She mentions that not all lecturers have the same amount of time to give feedback and that sometimes this is too short.

Martha's least favourite assignment is an exam as she cannot fully plan in "*slots*" to work on the assignment. She feels she has "*.a short term memory, especially when it comes to exams and can therefore only prepare in the days leading up to the exam*". Open book exams are a little better as she can "*prepare notes*", but she still feels she learns less than from other assignments as she remembers less. She feels the phased assessment, where she had to prepare weekly assignments for formative feedback, "*.helps you to go back to what you have done and probably retain better*". A little later in the interview she contradicts this statement though by saying: "*I can't say I know or remember more of this module than the other two which we had at the same time*". Neither did the assessment method make her engage more with the module: "…*it was my priority every week and I neglected the other two modules*". A scenario where she would not know the assessment until later on in the semester would be her worst

nightmare and not make her engage more with the module or theories covered: "…*it would freak me out…I would be so stressed…how are they going to mark me, based on what?*".

Martha is personally motivated to gain as much knowledge from each module as possible however she says that naturally a student will "…*focus on what you are being marked for*".

In Martha's opinion the lecturer makes the biggest difference in the learning process, from how much you learn and how much you retain: "…*the way things are explained…some people are able to make complicated concepts so clear and then go over it again and again and continuously asking is everything clear...do I need to go over it again…or even having little discussion on the topic and not just talking the slides through. And some people are really natural, like really natural. And others they go back a bit more to what is written on the slides…*" A little later in the interview she makes the point again: "*I think students retain more when the lecturer is more competent in engaging the students and being interactive and linking it to the industry. So learning retention is more when the lecturer brings it to life with industry stories or case studies. Because you do remember these when you learn the theory*." Martha also feels that the lecturer has a huge influence on how well you will do in your assignment: "*The quality depends so much on the guidance you get*".

Martha feels that peers can add value to sessions only when they have worked for a company and contribute to discussions from their own experience: "…*they don't read the theories before…when they discuss the cases then again these stories help you retain*".

Personal interest in a topic will help with engagement and retention of knowledge. Modules she is naturally interested in will help her learn more and retain more. Martha says she does not like numbers and, consequently, feared the accounting and statistics module. And even though she did really well in the exam (". *believe the highest mark so far*."); she does not remember the key things she learned: ".*don't ask me…what is medium.medior.midi thing and all those other concepts that we had to use for the assignment because well I just wanted to get through it and that's it. I'm not interested, and I know it's relevant and I know when you work for a company you can use it but*…". Martha feels she spends a good amount of time studying outside of classroom, or independently. Her studies are not affected by other priorities in her life: ".*I read and read and read. I read many different sources. I write down who says what. But I have a limit where I can't remember what I read*".

Martha wants to get a first degree but, it being her second BA, she wants to also learn as much as possible. Martha's feels that the best methods of getting this knowledge is by attending all classes, having full awareness of assessment requirements and ability to plan these, and having experienced, engaging lecturers who are willing and able to give quality formative feedback.

4.4.3 Student B

Student B, whose pseudonym is Rajan, is 20 years old and moved to the UK from southern Europe at the start of his studies. Rajan says he knew the direction he wanted to take at a young age and always worked his way towards it. His family have always encouraged him to do well academically and as he says: ".*failure is not really an option, I want to do my mom proud*". The interview with Rajan was rescheduled a few times because he needed to see other academic tutors for feedback or dissertation supervision. Rajan was very apologetic about this and waited an hour outside my office just to convey this. Rajan arranged for his peers to join the interview, making it a semi-structured focus group which lasted nearly an hour. During the discussion Rajan tended to let his peers talk first and then, most times only after encouragement from me, contributed to the question. His answers were different to his peers and did not follow a pattern of conversation as it did among them; consequently, Rajan's thoughts have been analysed as if they were gathered in a one-to-one interview.

Rajan recalls getting 64% for his first assignment in his first year and since then he has sought feedback on both incomplete and final assessments. Rajan prefers verbal feedback to written feedback as you can have "*interaction*" and in most case you can "*record it anyway*". He preferred the phased assessment over other methods of written assessment as he feels more confident with the weekly feedback. For more traditional assignments he tries to work on good drafts: "… *I try my best to include as much as I can on my assignment so when I do get my feedback everything is checked for you*.". He attends extra support sessions for students whose first language is not English and sees his academic personal tutor on a regular basis. Even though he attends most lectures, he always watches them back on replay: ".*always good to go back and just confirm "okay, this part I understand, what about this part? Did I miss anything?"* Rajan has a zero-hours contract within the field of his study and says that he prefers this to more permanent work: "*I want to be able to focus on my studies and often say "no" to work. I let them know when I do have time and then I usually get work*.". He works for the experience and because he doesn't want to ask his parents for everything but, simultaneously, he takes on their full support. "*It is my full intention to one day repay them all what they have invested in me, not when I am still building myself up but when they are retired*".

The three students feel that having other priorities is the student's choice and that their choice is to learn. Rajan says: "…. *Like us three we are motivated to learn and to engage with the textbooks.we wanna pass with a high mark.we wanna learn it, memorise it and actually use it*". Rajan believes that assessments can have an impact on how much you engage with a module as well as how much you learn

and then retain that knowledge: "*The way we were assessed…we learned something each week and memorised it*." And after explaining he didn't have a natural interest for the topic at first: "*I realized the stuff I learned through the assessments. I actually took forward with me and applied it to work and other things as well..that I still remember now, like I literally remember what I wrote*" .

When asked about assessment types, he mentions that presentations have his preference. His key reason is that he feels he learns more from the process of preparing for a presentation than writing a paper at home: "…*what you wanna do is have less notes so really what you are trying to do is memorise it and the more that you engage with it the more natural it becomes and then you have it all in your head*". He also feels that working together with peers is an advantage as everyone puts their experiences forward and they learn from one another. Assessment criteria helps the students work towards the grades they aim for but Rajan reflects that the one time they didn't have clear criteria, he actually enjoyed the experience and feels he learned more: "… *it gives you more freedom and you're able to think outside the box*".

Just as assessments can have an impact on learning gain and retention, in Rajan's mind so does the lecturer: "…*but it's dependent as well, like the lecturer can be below average and the module can be really interesting but you wouldn't be able to engage with the module as much as you want to because the lecturer teaching it*…" Rajan goes on to discuss a module where they had a change in lecturer half way through the semester. The first lecturer had more than 20 years of experience in industry and using this experience enabled the students to link theories to practice: "*Whenever we didn't understand something someone would ask a question, he would give an example of when he had to deal with that particular situation when he was working so then you can get a sort of an understanding…learning from a role model sort of thing*". The second lecturer was not able to engage the students as much however they found their own solution in peer learning. Rajan follows this by relating back to another module where they did a lot of group work in the seminars, debating certain topics: "…*it was interactive which made it more fun and we are able to learn more*" .

Not being able to fully follow theories and terms discussed in class has, in Rajan's view, an impact on learning and retention: *"...okay, I need to study all these words and the different cases", so it's a lot harder.. you're bouncing back and forth between each terminology and it's a lot harder to remember*". And after module completion: *"... it's like you've finished your bit and you're relieved but it's sort of hard to take it further if you're relieved at the end of the submission.".*

The students often have lectures with more than 100 students and seminars with more than 40 students. Rajan reflects on how large student numbers affect his comfort zone when it comes to contributing to class discussions or points raised in the lecture: "*For me, sometimes I get nervous, when the bigger the room, the more people or students, I tend to just sort stay in my lane*.".

As reflected in his chart below, Rajan reaffirms again that a lecturer can make all the difference: "…*that's how the lecturer can step in and dependent on their teaching methods, that can help us be intrigued with the subject, no matter if we hate it or not or if we're not that interested in it"*. It is clear that Rajan believes that good results, learning and retention starts by the input of the student but is greatly affected by the opportunity of feedback from the lecturer and their ability to create engaging learning environments.

4.4.4 Student C and D

Student C, whose pseudonym is Navneet, and student D, whose pseudonym is Kevin, were both encouraged to take part by their peer, Rajan. At the time of the focus group, both Navneet and Kevin were predicted a 2.2 classification for their case BA. Navneets attendance is moderate, meaning he attends at least half of all classes on his timetable. Kevin's attendance is low, although his engagement with the online learning environment is high. Both have part-time jobs in their field of study. Navneet lives with his parents, and one older and two younger siblings, and he uses the bus to get to the University. He says he was not sure what he wanted to do but then came across this course during clearing. He now really enjoys it and is looking forward to his career. Kevin moved from the Midlands and started out in student accommodation but then got a job on the other side of London and has been flat-sharing with work colleagues. During the interview, he explains that because of shifts at work and the long distance to University, he does not always attend classes; however, he follows them all online: *"Once you kinda get what you need to do. After the first year, it is all the same and I come to the important ones like where they check your work".* During the focus group discussion, Navneet and Kevin often followed up on each other's statements. Both were not afraid to be critical of their experiences with lectures and learning opportunities. Rajan had to be encouraged to follow their answers and his were more measured and often different to his peers. Kevin is quick to answer my question on assessment types: "*I think the way we are assessed*. (Navneed interrupts to clarify: "*presentations.essay's.exams*")…*depends on how we are learning as well*". He goes on to discuss a particular module in their first year for which they had an exam. He feels that the books he had to read, the text he had to memorise, helped build a foundation for the remainder of the course. He still recalls what he learned and applies it to practice. Kevin feels that the way you are assessed also depends on the module and what you must learn. He explains that for a module like legislation, an exam is required. But when they had to think about consumer experience, they presented an innovative idea: "*So, getting the right assessments methods for the right modules, I think that's really important to bring out the best from the students*.". Navneet agrees: "*Yes, we always learn from our assessments, they help you understand it and you remember stuff because of the assessments*". Navneet preferred the phased assessment: "…*each week we'd get an assessment to do but*

we'd know where we'd go wrong, we'd always show our seminar teacher for feedback and that would help us improve each week rather than just build up doing so many words and then not knowing if you were on the right track or not". Kevin adds: "*.it just has a snowball effect so you're gradually building up on what you're learning at the same time as the weeks go on*". Navneet feels that from all the assessment on the course he learned the most from the phased assessment because it made him look at all the weekly topics of the lecturers and because he remembers what he learned through the accumulated feedback. Kevin agrees that the phased assessment made him feel more confident when it came to the final submission; however, when it comes to learning retention, he preferred the life project required for one of his modules: "*Because we had to show whatever we learned in the seminars and that we can apply it and in the end of the day that is what it is about*".

Navneet feels that when it comes to actual learning, time is an issue for most assessments: *".I wouldn't say that four weeks or six weeks is sufficient to cover; I know they say you have to do a lot independent learning but we know that nobody's actually gonna waste, not waste, but spend their time doing that independent learning".* Kevin agrees and argues that a lot of students wouldn't care much for independent learning: *" A lot of the students are just motivated to get a degree, a piece of paper, that's it. Not learning, they just want a degree. So, a lot of them won't even come, they won't even turn up to the lectures".* Navneet adds that *"it is possible to get a degree without coming to class".* He reflects that that can be demotivating because you barely see them, and they still pass. At the same time, Kevin, who attends class the least of the three, says: *"But you do learn more by attending, from the experiences and from the discussions."* Navneet adds: *".not just from the curriculum or book"*. The two agree that time is a problem and that when assessment criteria are not fully clear, it leads to them focusing on their other two modules and leaving one module until the last minute. They complete each other's sentences when they say with the little time left to complete the assessment there is not enough time to learn what they are doing and to then remember it and apply it to practice. The pair discuss that when they complete an essay with just days to spare, they search a few journals, read the introduction and then search for key words. They put it together as a jigsaw puzzle and *"I don't think we actually learn from it".*

As with Rajan, Navneet and Kevin make full use of the feedback available. They feel it helps Significantly with their learning. They read all feedback they receive but prefer verbal feedback. They are, however, also critical of some lecturers: *"Not all tutors are willing. Like one she actually refused to give feedback"*. And Kevin adds: *"Yeah, there you have students who are actually engaged, who wanna learn and I think the tutors are there to support them so."*. Navneet and Kevin both feel they need their lecturer to clarify the assessment criteria and passing is dependent on the lecturer providing the guidance and feedback. In the students opinion a lecturer experience really comes across: *".and because of that the way you learn as well you can tell the difference.".* Kevin reflects on a time where he questioned a

lecturer about the theories and that she took offence. He believes her inexperience meant she took his question for "*.criticism of her teaching the remainder of the sessions"*. But as with Rajan, the students find their own solution in peer learning: *".we just hook up with mates and discuss it and stuff and then we understand and learn"*. And: *"We go to the seminars with the better students and then they have better teachers too"*. The pair add that when students find it difficult to follow concepts discussed, attendance drops. Towards the end of the semester less than a third of students are attending some lecturers. In addition, the time that a lecture is scheduled has an impact: *"If the session is at 9, people can just not make it on time".*

Kevin reflects how little things like an open window can distract during lecturers. Navneet agrees that he too gets distracted by looking at planes flying past. Both feel that large student numbers make you invisible. Kevin argues that large seminar groups have no point, when there are too many students then a discussion can't take place and there is no reason to attend: "…*a lot of the students, they're probably scared in speaking in front of a huge crowd so they don't wanna raise their hands up 'cause they probably "what if people start laughing?" So the number of students in a class will limit the potential debates that you can actually have.".* Navneet refers to seminars where there are 20 students or less: "…*when he asks us questions, we actually raise our hands and debate about it. The number of students in the classroom make a difference*.". But as has been a pattern throughout the conversation, both students bring it back again to the lecturer: "*In the end, even if the class is not comfortable, or many students, if the lecturer manages it well we will pay attention and learn*". "*Yes, it is all about the lecturer".*

4.4.5 Student E

Student E, whose pseudonym is Alistair, or Ali, stands out from all students in his year group with his extrovert personality. He is upfront with his reasons for doing the interview, explaining that he hopes to learn from it for his own undergraduate dissertation. He starts our meeting with asking me about Nvivo. In Ali's first year, he attended all classes and lived in student accommodation. However, he is strategic about everything he does and now only attends those classes that "*pay off*". He says that he must manage his time carefully. Following his placement year Alistair has changed from a job in the industry related to his case BA to a different sector, while still volunteering in a leadership position related to his original industry. His positions have been customer facing, HR related and now involve a lot of organising. As he puts it: "*I try to tick all the boxes*". Following graduation, he hopes to study further and then work in HR or even move into Higher Education as a profession. Going back to his strategic ways of organising his time, Ali says: "*I come for the first few weeks to most lecturers and seminars so*

I fully understand the assignments and also what the lecturer wants. I try and come to all lecturers but I skip some seminars. I do try and schedule work on days that we don't have class, but the timetables come out so late. Then even if I am not working, I sometimes go to the library or network instead of the seminars." He is upfront with his learning approach, admitting that this is very strategic: "*I want to get at least a 2.1. A first would be better but then I would have to spend more time here. Even with a first I wouldn't get into the top jobs because I would have less experience or maybe none at all. And the top jobs often go to students from other universities. So I want to build a good balance. At the moment it is working out for me. I am getting the grades and I am building my work experience. I am building the relationships*." He goes on to explain how he plans for group work, most assessments. He takes the lead and delegates the work and the schedule and then puts the final assessment together. For individual assessments, he uses the online learning environment and follows the recommended reading. He then, in his words, "*bashes*" out a draft, which he shows to the lecturer a few weeks before submission. He uses the assignment marking grids to self-mark his work and is usually correct. Alistair says he tends to seek feedback for all his work. He learned a lot in the first year from written feedback, but now it is easier to just speak to lecturers. He is critical of some of the feedback he has received on final work but admits he has not taken this back to his tutors to gain further understanding. When he does seek feedback, he tends to record it and listens to it again. He recalls that some lecturers give cohort feedback or group feedback and then he listens to it again via the lecturer replay.

Through some prompting questions, Ali began calculating and adding up the amount of time he spends on his studies. He works out that, per semester, he averages around 120 hours on assessment preparation, 120 hours in class and another 30 hours "networking", which he describes as planned socialising, and individual time with lecturers. Per module, this equates to 50 hours of independent study/preparation.

When asked about assessment types, Ali remembers the phased assessment. It irritated him at first as he felt he had to spend more time completing the weekly task and attending the feedback sessions. But after getting an agreement to do three at a time he felt like he did learn more, as he had to focus on each weekly topic. He explains he still did not attend all sessions but that he used the re-play online. He feels that he spent the same amount of time completing the assignment then as he would on an essay or report. Overall, he feels that the learning was broader, and he was able to relate and apply it all at work. He says it was a two-way stream: he understood the theories better because of his work but he made changes at his work because of what he learned. However, he does not recall any specific authors or theories. Alistair says this is the case for all assignments he completes, he tends to remember case studies but not theories. Anything he can relate to his current workplace will be remembered and applied where appropriate, as such learning is influenced by his personal (work) interest.

As with the other students, Ali mentions that a lecturer can have a significant influence on what he learns and retains: "…*when they make it a good lecturer and they have lots of interesting examples of their own experiences or case studies etc. Or when we have a good discussion, I certainly retain. When I feel like discussing it with peers later, I retain the knowledge. Like I remember stuff from our first semester, first year, because it was interesting*.". He goes on to say that this learning is solely down to the lecturer and not his own interest; indeed, a lecturer has motivated his interest in a topic on numerous occasions. For one subject, he had a personal interest but the lecturers were not very engaging and the assessment was an exam, and he is not an "*exam kinda person*". Alistair explains that for exams he tends to leave the work until a few days before, "*crams it in*" and then forgets it again as he "*didn't really think about what he was learning*". For another module in which he had an exam he did attend all the classes and completed a few practice exams. He thinks he remembers quite a bit but is not too concerned as "*you can always look it up again*". When asked which type of assessment helped him best to retain the knowledge, he mentions the project he did with peers for one of the modules, not the theories but the stories of the companies that came in to present. Moreover, he mentions the phased assessment again, but mostly because he was able to apply what he learned at work. Throughout the interview, Ali mentions a few times that he does not retain theories, only that what has interested him. He argues that although he learns mostly from the assessments and the process of completing them, he also learns from coming to class, the cases that are discussed and interaction with his peers. He has a core group and together they discuss what has been said in class. He does feel that because he takes the lead in this, he doesn't learn much from the others in his group, instead he learns from his own repetition. He does learn when others in his cohort contribute in class with questions and experiences. Alistair has developed a strategy with his core group where they ensure at least one of them attends a session. They usually look at each other's work after they have handed it in but when they had the phased assessment, they compared the draft feedback on a regular basis.

Ali does not get affected too much by the learning environment, relating this mostly to large classes. He mentions that in his first year he found it hard to focus when there were many students but now, he always sits in the front row and is not afraid to ask or answer questions. He does believe it has an impact on the lecturer on how much time they must spend on managing the class. And he believes most of his peers disengage when it is a large class, in his opinion the best class has 15 students or less, that is when it "*gets fun*". When learning becomes difficult due to large class sizes, uncomfortable chairs, lack of power plugs or laptop space, Alistair finds his own solution to learning: he stops attending and listens to the replays instead: ".*when the learning environment is not is not so great I don't learn as much. BUT I am not letting it impact my grades*.".

In five years, Alistair believes he will remember the skills he has accrued, the researching writing and questioning and the interesting case studies. He will know where to find information and how his industry works. For anyone embarking on their studies, he recommends they build a strong core group of peers, get to know their lecturers, get a job and know how to get good marks. At the end of the interview, he had one more thing to add: "*If you want to know how students learn and retain that knowledge, then keep things interesting, have case studies and smaller classes*".

4.4.6 Students F and G

Students F and G, whose pseudonyms are Lara and Justine, are both young mothers. Initially, only Justine volunteered for an interview, but she then agreed to ask her friend Lara to come along. At the time of the interview, Lara was predicted to have a Pass degree. With a young toddler at home, she attends around half of all her scheduled sessions and has low engagement in the online environment, which means she interacts less than her peers with the online module materials. Her friend Justine, a few years older and with a child in reception, has high attendance levels and moderate engagement on Blackboard. Lara has moved back in with her mom who helps out with some of the childcare, but it also means she based on the other side of London: "*I can attend very little. I live on the other side of London in zone 6 so it cost me a lot to get here. And also for 9am starts I have to take the bus so early. Then it depends on if my mom can babysit. So most times I can't make it but I try*." Justine stays with her cousin a few nights a week who lives near the University. But this means that her daughter, who goes to school 1.5 hours away, has to stay with her grandmother on those nights. Justine has given up her job for the last few months of University as she is motivated to get a good degree classification, which will hopefully lead to a better job. Throughout the interview Lara mentioned several times that she is lacking behind in all her work because of re-sit work. She has resits each semester from previous semesters and this then affects the assignments she is meant to be focusing on. She can't afford to fail the re-sits because then she would have to re-pay the modules and in some scenarios she would not be able to have progressed into the next year. The two friends disagree about the support available to help them with their studies. While Justine believes the support is very good, Lara believes she is being penalised for not attending many lecturers. She says that lecturers never have time to look at drafts and either do not reply to emails or give rude replies. Although her course leader knows about her situation, she does not believe there is much empathy from the lecturers, and she is unable to make appointments or commit to them because of her mother's work schedule. Justine agrees that it is better to be nearby the University and that it is easy to fall behind as there are so many assessments each semester. Lara's preferred assessment is exams as she feels she can prepare them in her own time, drafts are not expected, and she cannot upset peers (by

not attending meetings) for group work. She adds that for essays, she often thinks she "*gets the question*" but later finds out that she had it all wrong. Again, the reference is made to the resits and the inability to have drafts checked on time. Conversely, Justine prefers essays because she can get draft feedback and then make changes. Justine explains that you do need to know when and how lecturers expect drafts as otherwise you might not get it. Justine prefers the verbal feedback and says the written feedback comes in various quantities. Lara always reads her final work feedback and finds it very helpful. Although exams are her favourite assessment, Lara admits she does not learn much from them: "*I think I do learn from the other assignments but always much too late, like 6 months later when I do the resit the penny drops*.". She adds that when assignments go well, she tends to learn from them. Justine believes she learns from all assessments but in a different way. She remembers theories more from exams and case studies more from essays and group work. Both students are positive about the phased assessment. Lara remembers that she was able to summarise what was on blackboard on her notepad during her commute and could show the work for feedback during the times she was able to attend. The feedback helped her with her final work and pass. She was also able to relate the course material to her place of work which she says has helped her to remember most "…*but not the authors bits*.". Justine agrees that the small task made it easier to complete the final assessment. Her approach was to use the 3 hours she had in between lecturers to complete her weekly task. The final submission did not take her much time. As with Lara, Justine was able to relate most back to work and that helped her retain the knowledge. Lara is unable to do much wider reading outside of assessment work. Justine believes that to get a First, you need to do all the recommended reading and more, and attend all the classes. She explains she is unable to do this as she cannot attend when her daughter is off school. She feels she learns a lot but that it always "*assessment directed*". Both students reflect that they spend a lot of time on independent study, always trying to work on assessments.

Both Lara and Justine feel that lecturers can impact learning: "…*there are some very good once, that really care. And they don't mind if you don't come every week or if you late or have to leave early. And then I am happy in their class and I learn more. But some just judge you like you can just feel it…they hate you like. And then I think there is no point*.". Justine thinks this difference is perhaps down to the experience of the lecturers. She feels that those who have been in the profession longer are more empathetic, engage and manage the class better and stimulate discussions: "*You definitely learn better if your lecturer is experienced*".

As with lecturers, peers can have a huge impact on learning: "*I wouldn't be here if it wasn't for peers. They are so supportive.*" The students talk about how peers help check each other's work, provide notes and information when someone has missed a session and enjoy discussing interesting cases that have come up in class. They are loyal to each other and it is clearly part of their ethical values and beliefs.

When we talk about the learning environment, Justine recalls a module in their first year where they had a class next to a kitchen: "*That was terrible I would be hungry all session from the smell. And the chef always shouted.*". Oher than the smelly kitchen, both Justine and Lara seem to agree with their peers from the previous interviews that large class sizes can have a negative impact on learning: "…*it is much harder to understand, to focus and also the lecturers get a bit more boring. And people participate less. It is always the same people participating and the same people playing up*.".

When we reach the end of the interview, Lara and Justine reflect on what they have learned during the degree course and what they will remember. Both mention the research and writing skills and anything they can relate to practice. Both still remember stories and case studies from their first and second year of studies: "*If you can link it to industry, you will retain it*.".

4.4.7 The Lecturers

To help form a more complete picture, the module leaders of the three core modules discussed previously in this chapter, were invited to join a focus group. The intention of the discussion was to gain an understanding of their believes around the case students learning approaches, their understanding and ideas of the influence assessment strategies on learning and knowledge retention and consideration of their own influence on learning. The first lecturer, whose pseudonym is Clara, has been with the University for almost 10 years. Before this, she worked in the field that she now teaches and in secondary education. Clara works on a part-time basis, managing two large modules. Clara hopes to retire in the next five years and has not completed the PGCERT in higher education, which is now a requirement for all new staff to complete. Clara is not interested in further personal development within academia although she keeps up to date within her own field. The second lecturer, whose pseudonym is John, has been in academia for five years. Before this, he worked in industry. He completed his PGCERT in HE three years ago and takes a keen interest in blended learning and learning and teaching strategies. John is now studying towards a PhD related to the theories he teaches at undergraduate level. The third lecturer, whose pseudonym is Deepika, has recently completed her PGCERT in HE. Her background is in a similar role based in Northern India.

To get the groups thoughts on learning approaches we start the session discussing the terms deep and surface learning and the lecturers understanding thereof. Deepika believes that surface learning is synonym to efficient learning. Clara is not sure about either of the terms and says she thought deep learning is "*a way of programming artificial intelligence*". She is not quite clear how this would link to the students on the case BA. John recalls touching upon these terms during his PGCERT and links surface learning to rote learning and deep learning to the comprehension of course material being studied.

Deepika adds that "*deep learning is being able to apply the concepts and get into deeper learning"*. As the discussion continues, the group seems to associate surface learners with more negative factors like poor performance and discontinuation of the course whilst they see a deep learning approach as a student who has a good academic self-concept and is a good performer. As a reference point it is agreed that surface learning is considered rote learning; learning just enough but not necessarily fully understanding it or being able to apply it in depth. When a student adopts a deep learning approach, they really emerge themselves in the module, do considered independent study and research from which they demonstrate criticality and the ability to apply beyond their studies. Strategic learners demonstrate elements of deep learning but mostly focus on the grade they want as an external motivate and not necessarily on developing their in-depth understanding and ability to apply at a later time. Clara explains that in her module she does not expect students to be deep learners: "*In the assignment I have got questions that basically… they can pass if they have even opened their textbooks. But then I also have questions that test their understanding, that capture those that have made an effort, but it is not really deep learning*". Deepika adds that she expects students to show more elements of deep learning as they pass through the levels of their degree course. She doesn't think it is important for the case BA students to remember, or retain the detail they have learned from the theories but that is important to remember the practical elements: ".*especially for my subject it's not like they need to have retained the topics*.". Clara agrees: "*For mine...90% won't remember what they have learned. But I hope that I have planted those little keywords..they will ring a bell when they come across them in industry*". And she adds that most students fear her module. John strongly feels that the students on the case BA will not retain the detail as he feels "*they often do not see the link between what they learn in module A and how they can relate this into module B*". And in his opinion, it does not make a difference if the modules are being taught in the same semester or at different levels: "*It never seizes to amaze me how students seem to have forgotten what they have learned before*". He believes that part of the reason can be the modular system of courses, where each subject is presented as a singular concept and part because students strategically only focus on the single assessment at hand. When the students have completed a module and passed an assessment, they close the door. Even bits they might recall they don't access as they don't think it is relevant. He does believe that the overall purpose of the degree is to make the students more rounded professionals in their chosen industry and that they will be able to be critical and analytical and that it is not necessary to remember the detail of individual subjects. Deepika feels that the majority of students are assessment focused and will, therefore, only learn that what is covered in the assessment and if they retain anything they have learned beyond graduation, then this comes from the assessment. She also mentions that there is also a proportion of students who do not start work on their assessment until very late and that they can only be surface learners. John believes that most of the students on the case BA are strategic learners.

He believes that this is linked to more students following the higher education path and that therefore more students then traditionally have other priorities like childcare and work which leaves them with little choice but to only focus their time on the assessment: "*The purpose (for students) of getting a degree is to get a piece of paper and a subsequent job at the end of it. And that is the overriding priority, that is what they come here for and therefore they don't see the wider growth potential; learning in a more holistic sense."*. Clara adds that students focus only on their grades. During a trial where she wanted to give feedback before the grades, the students protested and wanted their grades first. After receiving them, some came for feedback on why they had not achieved a certain grade that they had in mind. She adds that this is the education system and the only way of measuring them. Moreover, she believes that the students are only motivated to pass their modules, get their degree and get a job. John agrees and mentions that often feedback results in "*justifying the mark more than providing feedback to learn*" and that this type of feedback is based on what students want. In Clara's module, students do not often ask for formative feedback and it is not a usual part of the assessment. Deepika does offer it but argues that only half of all students take advantage of it as the other half have not put in the necessary work on time to receive the formative feedback. She says that those students that do want feedback are usually consistent with this throughout their studies and then also learn from this feedback. They build it into different assessments and can reflect on it a few years down the line. But the other students just want their marks and only care about passing or failing. Clara explains that she recently spent many hours developing a new learning tool for the students to help them with their exam. Students had the option to complete online questionnaires and these would tell them why their answer was right or wrong. She says: "*the students who participated in the test did really well in their final exam and much better than those that did not take part".* But she believes that if she includes it as part of the assessment it will have a positive impact on the overall cohort. Clara believes that the revision required to pass an exam well, whether it is open book or not, does aid in more knowledge retention than an essay assessment would. Deepika believes that by asking students to complete regular, bite size assessments they will retain more knowledge. She refers to a portfolio assessment or phased assessment. She thinks students engage better with these types of assessments than with an essay. Yet, the group believes essays must remain part of higher education assessments as they develop different skills that perhaps even link to deeper learning. Clara believes it is good to have a mixture of assessment types across the course and mentions how some students "*freak out*" by the mere mention of an exam. The others agree and it is discussed that all the different type of assessments lead to different types of skills being developed and give the diverse student range with variety of strengths, opportunities to shine. Although Clara mentioned earlier that she does not believe an exam type of assessment necessarily encourages deeper learning, she does believe this assessment type will lead to the most knowledge retention in comparison to other assessments. Deepika

agrees, that coming from an exam-based education system, exams defiantly encourage knowledge retention. In addition, she mentions: "*You just don't know what is going to come so you have to read and know everything*". As she has recently completed her PGCERT in HE, which has assessments like essays and portfolios, I ask her to compare the two methods of the final exam-based system versus the modular assessments. She says she can definitely apply what she learned almost as she was learning it. She argues that she will remember those elements she was able to apply to practice but not the specific theories. One of the ideas she took away was an observation assessment. Here, students observe an element of their case industry and then write a report on it. She believes it increases engagement and thus learning and retention. John believes that the professionalisation of the HE industry through the required qualifications and accreditations will lead to better strategies to improve learning, teaching and assessment. Morally, he feels it is an obligation to create methods that encourage deep learning; however, simultaneously, institution performance pressures related to mark profiles and completion rates can push academics the other way. At the same time, John argues that students are not interested in anything unless it is related to assessment, they just do not care. He discusses an assessment he designed where he consciously moved away from the deeper learning opportunities to more surface learning by doing small assessments at a weekly interval and covering more topics. Following the phased assessment method, it increased engagement more, students were now engaged with all topics, but he is seeking to find ways to allow for deeper learning.

We discuss the method of assessment of learning versus the method of assessment as learning. I propose to the group the method of a phased essay; whereby, students complete an essay over the duration of a module, getting formative feedback on a regular basis and building on this before final submission. Clara believes this would work only for those students already confident in writing essays and mentions the many students who do not have English as their first language. Deepika believes it is exactly those students that would do well as they tend to know their weakness and for that reason come for feedback. A situation where students would not be told about their assessment brief until later in the semester is an instantly agreed "*No no no*" by all three lecturers. The students who are focused on high grades would feel they were at a disadvantage through this method. Other students need the support and encouragement throughout to push them towards their goals. It is feared by the colleagues that this method would also disengage those students who are already finding it difficult to pass and it would make them focus on the assessment for modules where they do have the criteria. Thus, it is agreed that this method would not encourage more independent learning.

The group discuss that lecturers can have a significant impact on students learning by how they are able to engage them. However, all three have been faced with "having to teach" a module which is not in their own preferred area. They discuss how students pick up on them "reading of slides" and how

it is difficult to keep students engaged in these situations, let alone encourage learning. Some sessions are scheduled for four consecutive hours, whilst others have two-hour lecturers and then a break followed by a two-hour seminar for different groups at different times of the week. All this makes a difference to engagement, the colleagues believe: "*Four hours is just too long for anyone to stay engaged even if you do quite a few breaks*". But also: "*If your lecturer is on Monday and your seminar is not until Friday then why would you come to your seminar*?". In addition, as all the students mentioned in their interviews, the lecturers feel the class sizes are too big: "*I suppose it is acceptable in a lecture to have more than 50 students but 100 students for 2 hour lecturers, you lose half of their attention after ten minutes*". Moreover: "*I have seminars that have more than 40 students in them, one of them has as many as 75 students. For a seminar*.". Not only do the large classes make it difficult, the team believe the environment is also not ideal. Often equipment is not working, the students have chairs with "*flappy*" tables, and the seminars take place in lecture rooms without opportunity to spread out or break into small groups. In the spring term it can get too hot, in the winter it can get too cold. The three discuss that these circumstances will not deter those students who are out for the best results and who are interested in gaining vast amounts of knowledge. It will mostly affect the students who are borderline. Their engagement and attendance are negatively affected by the subject experience of their tutors, class sizes, timings of sessions and the facilities. Furthermore, the large class sizes mean there is less time to give formative feedback to each student, often reducing it to 5 minutes per student.

Each of the lecturers has been working on their assessment methods and is committed and determined to ensure they encourage engagement and independent learning. Deepika plans to further develop her observation methods and find interesting sites to visit with groups of students. She is engaging with industry experts to arrange these for the next academic year. Clara tends to further develop the online questionnaire and is considering making this part of the assessment and asking students to complete every other week. John feels that if content is not related to the assessment, students will not engage. Consequently, he is always aiming to create an assessment that is a vehicle for learning. Most recently he developed a phased assessment which he says students can approach from a surface perspective but in which he expects students to show critical engagement, making it in his opinion a very thin but still deep form of assessment. He feels though that he would be ".*very very hesitant*". to design an assessment that would not allow for students to adopt a surface approach because ".*I think that my failure rate on that assessment would go beyond what would be deemed as acceptable for the University*.". In John's opinion, when students demonstrate a deep learning approach, they are able to achieve the high first-class marks. However, ".*we have designed a system with assessments that very much allow a student to consistently adopt a surface learning approach and still complete and, although*

not with high marks but still,… pass.". Clara and Deepika look solemn at this statement and both nod their heads in silent agreement.

4.5 Conclusion

This chapter has provided insights into the findings of the conducted research. The findings were then considered to provide a detailed analysis on how they help answer the research questions set out at the start of this study. Although from the sentiments expressed, students have intrinsic motivation to learn, it is clear from both the quantitative and the qualitative data that the majority of students of the case BA are strategic learners. The students appreciate the variance of assessments offered by the academic team. Those assessments which enable the students to apply theory to practice are most remembered and valued. Other contributors for knowledge retention are regular feedback. A recurring and dominant factor to emerge from all the student interviews was the impact the lecturers have on both the learning approach and the retention of knowledge. Those lecturers who adapt a student-centred approach and bring the theory to life through the use of case studies and personal industry experiences have a larger impact than, based on the focus group with the academics, the lecturers may believe themselves. The next chapter will discuss these findings in more depth, as well as making recommendations for future practice.

CHAPTER 5: Discussion

5.1 Introduction

At the start of this study, I had a good understanding of the various learning, teaching and assessment methods that have been introduced in higher education settings within the last decade. I had a believe that in general, teaching academics are aiming to provide learning opportunities through assessment. The literature too confirmed that, in the past two decades, assessments have become more diverse and innovative from the traditional essay and exam papers (Siarova et al., 2017). Although higher education bodies are emphasising the soft skills graduates develop during their degree course, employers are also calling for more sustained professional knowledge in individual industries (Chai et al., 2017). As part of our increased understanding of how students learn, we must aim to develop assessments to a level where we can measure if that was is learned can be retained by the student to apply either to future studies or their careers.

This chapter aims to discuss the findings of the previous chapter in relation to the literature. It will begin by answering the research questions drawing on the findings of the research before discussing the lecturers influence on the student experience more generally from the students' perspective. Revisiting the conceptual framework, it will also recommend a framework that may be used as a tool or reference point for academics to ensure students are learning in an environment, which stimulates deep learning.

5.2 Are there Significant Differences in Assessment Results, in terms of Attainment, for Different Assessment Types from the Students' Perspective?

The statistical data clearly demonstrated, as in previous studies (Jenkins and Johnson, 2016; Banta et al., 2012), that out of the three emphasised assessment types of this study, the phased assessment resulted in better attainment, with the median grade 15 points higher than the exam paper and 11 points higher than the essay assessment.

The interview and focus groups confirm that the students in general also believe that a phased assessment gives them a better chance for higher attainment results. The reasons given are mostly linked to the regular feedback provided through this method which gives the student the chance to improve on the assessment on a, if they choose, weekly basis which is in line with Black and Wiliam (1998) and

Bennet's (2011) findings on the positive affects regular feedback has on students' learning. Yet, when questioned about the learning gain in the assessment experience questionnaire, the method scored 3.8, which was .2 lower than the essay (4.0) method of assessment. In addition, the two highest performing students interviewed argued that, although they preferred the security of the phased assessment, they achieved their highest marks in exam assessments. Although they both made full use of the feedback provided by the lecturers, they did not necessarily get higher marks with the phased assessment than with essay assignments. Both students indicated that all types of assignments offered formative feedback opportunities and that if you planned for the draft submissions well, these would aid good final submissions. Although formative feedback was not given during exam preparation, there was an opportunity to do mock exams. Martha also made it clear that in some way the workload of the weekly tasks distracted her from other modules and assignments and that it had a negative impact on her time management. The lower performing students interviewed made it clear that it was the flexibility of the feedback offered that helped them get better results with the phased assessment in comparison with other assignments. The lecturers involved had shown empathy and understanding towards their situations and allowed them to produce work for feedback that was handwritten or that included a few weekly tasks instead of one. For the lower performing students, it made a difference to have the assessment broken down into smaller "chunks" and that these related to the weekly topics discussed in class and the online learning environment. The students mentioned that with using the recommend reading on the virtual learning environment as well as the lecture material and recordings, they were able to complete drafts of the individual task in between classes or during their commutes.

As such, the student perspective is that different assessments types can have an impact on attainment. Students with high engagement scores feel the assessment type and relation to attainment is not hugely significant if there is an opportunity for formative feedback or mock exams. However, students who are less able to attend classes and, therefore, have a lower engagement score, feel the assessment type can have an impact on attainment. This is especially true if the assessment is broken up into smaller parts, like the phased assessment, and if the lecturer is able to provide formative feedback on each of these parts.

Other assessment types were mentioned during the interviews including work-based portfolios, projects and group presentations. From the sentiments expressed when talking about these types of assessments, it became clear that most students find them engaging and believe they will be helpful in their future employment. Consequently, students are further motivated to apply a deep learning approach which, subsequently, has an impact on their attainment. Based on nearly two decades of research, the current literature has thus far argued the benefits, in terms of attainment, of formative feedback, especially if the formative assessment is part of the final work (William and Thompson, 2007; Lau,

2013). Although most academics have been implementing this evidence into their practices during the last decade (Zwelijongile-Gaylard, 2015; Lopez-Pastor and Sicicilia Camacho, 2017), there has been little research on the impact of different assessment types for different types of learners coming with different engagement opportunities.

Future research might want to compare the attainment results for all types of assessments provided on a BA course whilst also considering the different student profiles in terms of different engagement opportunities. It is however safe to conclude that, from the students' perspective in this study, a phased assessment, where regular feedback is provided will result in better attainment results than a regular essay or exam for the majority of students.

5.3 Do Academics Attempt to Provide Deep Learning and Knowledge Retention through Different Assessment Strategies from the Students' Perspective?

In 2016, the Times Higher Education carried out a university workplace survey examining how UK academics view their students. In its findings the authors discuss how most academics feel students are not dedicated to their studies and many make comments to students having to be "spoon-fed" or "handheld". In the present study too, it is clear from the underlying sentiments in the voices of the lecturers that they feel that the majority of their students do not have the inclination to do much beyond of that what is required when it comes to their learning approach or attempt to retain what they have learned. When questioned on this during the lecturer focus group, Clara explained that although she believes the exam assessment provides an opportunity to demonstrate deeper understanding, she does not expect the majority of her students to remember or retain the detail of what they learn beyond the completion of the module. Deepika believed that assessments, which are clearly linked to the industry more project based, will provide greater engagement and that this might result in deeper learning. Deepika, like Clara, also expressed her belief that students do not need to retain the theories or detail of the module and that they will remember what is important for their choice of career. Moreover, Deepika said that as the students' progress in their levels of study she expects to see elements of deeper learning. John created a phased assessment to ensure students were able to learn all topics covered in the module but has little expectations when it comes to retention. In addition, he argued that although his assessment allows for a deeper learning approach, he is not confident that many students take this approach and that assessments in higher education allow students to pass with just a surface level of learning. Perhaps the pessimistic views of the lecturers interviewed are linked to the student profile discussed in the statistical data. The lecturers are faced with students who come from non-traditional backgrounds who have other priorities or challenges outside of University. The widening participation students have not only become

more demanding in terms of their needs and show less independency, they also experience greater stress and mental health issues with an increase of suicide amongst university students of 56% in the last decade (office of national statistics, 2018). Their profile means that they require extra support and tutoring and are not always able to attend classes on a regular basis. The team of lecturers, challenged themselves with large class sizes and teaching topics outside of their personal research area, mostly experience the "difficult" student that they support in getting "through" the module. The timing of the focus group might have also had an impact on their feelings. The focus group was held towards the end of the second semester and the academics would have been tired from almost 30 weeks of consecutive teaching with little time off. Before we started the discussion on the assessments, the lecturers had been talking amongst themselves what a challenging year it had it been. They felt the department was understaffed and each had to take on teaching modules which were out of their usual research and comfort zone. And just as "The Times" survey (2016) highlighted that academics feel frustrated that students are not doing their preparations for session and are not showing remorse for this, the team discussed how most weekends and many evenings were filled up with marking, administration and preparation. This mood might have had an influence on the points the academics raised when discussing the students approaches to learning. What did not come across in the discussion with the lecturers were the actual attainment results of this cohort which showed that nearly 79% of the students graduated with a 2.1 or first degree. Furthermore, the students' engagement score measured through their attendance records and online engagement demonstrated that this cohort has very high engagement. The students in this study took the modules discussed in the focus group nearly two years prior to the discussion. As came across in the focus group, the lecturers have since adapted their assessment methods in the topic related modules they now teach which is in line with Watson et al. (2008) Torenbeek et al. (2011) assumptions that academics will become better and accepting of student-centred learning. All the academics in the focus group mentioned they believed innovative assessment methods would enable learning through assessment. Clara discussed how she has created mock exam exercises on the virtual learning environment and how she is considering making this part of the overall marked assessment. Deepika has moved away from the essay assessment and now asks students to complete a project based on an industry visit and John continues to adapt his phased assessment method to ensure deep learning takes place. Their views confirm Lucardi and Bursari (2017) findings that a student-centred approach leads to more knowledge acquisition, attributed to more active and engaged learning.

In the discussions with the students, lecturer influence quickly became a pattern of being the most frequently mentioned word or phrase. Martha, Kevin and Alistair all made a direct reference to the lecturers' influence on clarifying assessment criteria and requirements and how this has an impact on the students' ability to fully engage and learn from the assignment. In each interview, the students clearly

linked the lecturers in a positive way to engaging students with their learning and that the style of lecturing can be the "make or break" of students remembering or retaining what they learned. Each student mentioned the importance of the lecturer, the way they managed the class, the stories and case studies they shared and the feedback they provided. Rajan even discussed how he found it difficult to engage and, therefore, learn from a module in which he had a natural interest, because the lecturer was less competent and how he had the opposite experience with a module in which he originally had little interest. Thus, although the lecturers came across a little deflated when discussing their possible influence on learning and knowledge retention, from the student perspective they clearly do have an influence. The different assessment strategies designed by the academics and their commitment to providing deep learning opportunities has come across to the students and was the most significant element across all student interviews.

5.4 Which Learning Approaches do Students take to Complete Different Assessments and how does this Potentially Affect Knowledge Retention from the Students' Perspective?

The outcome of the assessment experience questionnaire indicated that most of the cohort take a deep learning approach, which are those students who look for integrations of different elements in their module, (Tsingo et al., 2015) to completing their assessments with a score of 3.9 out of 5.

Marton (1988) argued that many students will change their approaches to learning in higher education depending on what learning should place. Most students in this study discussed how their approach to learning had changed since moving into higher education, for example Kevin mentioned that at the start of his studies he would only read textbooks and the information available online from basic searches. He was used to learning in this way to pass A-levels. But now, as with Martha and Navneet and Justine he enjoys reading academic articles as well as comprehensive business reports and business papers as the economist: '*' It is fun to look at the different sources and draw your own conclusions, it makes it easier to remember".* Lara commented that in the past she could "survive" without referencing anything. And that now she has to "…*not only find the material but I actually enjoy learning it and seeing how I can apply it to the workplace*". Martha and Rajan indicated at several points in their interview that they were keen to learn as much as possible within their course and they both dedicate time to independent study. All students commented on how they spent time to ensure they understood the assessment requirements and that if they were not clear on these, they preferred to go to their peers or refer back to an online lecturer recording where a lecturer had gone through it, before asking a lecturer for clarification. All students discussed the importance of completing the assessments well to get their

desired result and they clearly made their assessments the main focus of their learning journey. This approach, in the literature (Sutton, 2016) is defined as the strategic learner. The lecturers believed that most students approached their studies from a surface level, yet the cohort results contradict this. As the cohort's results indicate, the vast majority of students got a First or 2.1 degree classifications, which as the lecturers confirmed, is not possible when taking a surface approach. High attainment is possible either through a deep learning approach across the entire module or when applying a strategic learning approach focused on the assessment criteria. Although the current literature (Entwistle and Peterson, 2004; Burton et al, 2009; Hakkinen et al., 2017) argues that a strategic learner does not retain the knowledge gained, the students argued that they do recall details from modules which they completed two years prior to the interviews. The students, however, do not necessarily link the retained knowledge to their learning approach and instead say this is dependent on the lecturer making the material engaging through stories, case and industry examples. In 2017, the Higher Education Academy published a study on the history of storytelling and that this in part has always been a part of education. Traditionally story telling has been used in all forms of education, painting a picture to explain sometimes complex issues and through this enhancing its accessibility and meaning. Its authors argue however that not all academics are as naturally talented in the art of storytelling as some of their peers but as they reflect on their own practices they might want to consider using more case studies. Storytelling as McDrury and Alterio (2003) argue, turn everyday moment into learning opportunities. In addition to lecturers bringing theory to life through stories, students mentioned that those assessment and modules which enabled them to apply the knowledge gained into the workplace, supported their learning retention, meaning they reflected on their own everyday experiences when trying to understand the theory and created their own stories to explain the complexities.

All students confirmed in their interviews that they usually went through lecturer notes and the material available on the online learning environment, often in class when they attended but also after. Those students with both high engagement and high attainment data mentioned they spent considerable time going through the recommended reading list.

Some students also discussed their learning gain through feedback. Other than Lara, who indicated that she found it difficult to receive helpful feedback in most instances, all students interviewed made full use of the formative feedback opportunities and also considered final feedback comments for future development. This is in line with Flores et al's (2015) research which argued that there will be a learning gain if frequent feedback is provided. However, the students' voice confirming they made, mostly, full use of both formative and summative feedback contradicted the lecturers who weren't too sure that students learned from feedback and felt that less than half of the cohort attended formative feedback sessions.

It cannot be ignored that the sentiments and actions of the students interviewed contradict these of the lecturers. Perhaps this could be explained as the students were asked to volunteer to participate and not all cohort student voices were heard through this method. Yet, there was a mixture of student profiles represented of the cohort and the statistical data of attainment and engagement as well as the survey results, confirm that of the verbal student voice. It should therefore be taken that most students take a strategic learning approach which enables them to incorporate deep learning elements, aided in part by the feedback available. From the student experience, however, the retention of the knowledge is not clearly linked to the chosen learning approach but more to their overall engagement with the module. This is influenced considerably by the lecturers teaching style and in part to the applicability of the theory to their practical experiences in the workplace.

5.5 To what Extent do Different Assessment Strategies (Exams, Essays or BLPAS) Encourage Long-term Knowledge Retention from the Students' Perspective?

Each student interviewed indicated their individual preferences to different types of assessments. The essay assessment was the slight front runner for learning within the assessment experience questionnaire result, scoring 4 points out of 5. The phased assessment scored 3.8 points out of 5. Exams were least favourite both in the interviews and in the survey. Although high results were possible in exams, students commented that this did not necessarily lead to knowledge retention. Although some researchers have argued that an exam based assessment can be a better method of testing knowledge gained (Chen and Brown, 2016), as the literature reviews has shown; most research on the subject has argued in favour of the essay both in term of knowledge gain and to a extend in knowledge retention (Henderson, 1980; Newstead, 2002; Dolmon et al., 2016). What has not been reviewed though is the knowledge retention when students complete more innovative assessments like the phased assessment. A phased assessment was considered an advantage to learning by most students interviewed, including the higher and lower achievers. Only Martha did not put the phased assessment above the essay and exam as she felt that with an essay, she could control her overall time management and therefore learning better. For the lower engaged students though, the phased assessment seemed to have a high advantage above the exam and essay assessment, not just because of higher attainment level but also because the smaller chunks and feedback meant it was easier to remember. The opportunity for regular feedback was also important and all students commented in the interview how feedback had helped them with their learning. However, the key reason for knowledge retention given by most students were linked to how the topics addressed in the assessment could be linked the workplace. It should also be acknowledged that within the interviews students mentioned other assessment methods like presentations, industry

reports and portfolio's and again mentioned their applicability to industry as a major influencer on knowledge retention. Although this study did not examine these particular assessment methods, as Dunlop (2005) confirms; they do all ask of the student to gain an understanding of the theory by applying it on practice, either through their own story of work experience or through case studies. This was reaffirmed by Deepika who reflected on her recently completed PGCERT in HE qualification, commenting that as a student herself, the theories she had learned through reflective reports or those assessment which involved live practice were the most memorable out of all assessments especially as she was now able to implement the theory into her work. Therefore, from the overall student experience, those assessments which enable the students to apply theory to practice are most remembered and valued.

5.6 Volume of Assessments and Modules

Of relevance to this discussion is that of the volume of assessments and modules. During the analysis, a point that came across both in the preparation of the assessment experience questionnaire and within the interviews was that of the volume of assessment as well as modules. As highlighted in table 10 in chapter 4, the students of the case BA complete a total of 22 assessments across 18 modules. As early as 1992, Gibbs suggested that a heavy workload in courses would have an impact on students adopting a surface learning approach. The students mentioned how from the very first term they must work on a minimum of three assessments to be completed usually every six weeks. This means that unless the students are organised and have efficient time management from the very beginning, it is easy to fall behind with summative assessment deadlines, led alone formative assessments. Kevin mentioned in his interview that where in the first year he tried to complete all the recommended reading, from the second year on he became more strategic in order to meet the different deadlines. In addition, it was clear from the interview with Lara that once she was behind with some assessments, it became very hard to catch up throughout her degree to the point that she had resigned herself to working towards a "pass". Most students discussed the short periods modules were covered in and how these were not enough to actual cover the theory discussed and to complete recommended reading, leaving practically no time to do additional, own resourced, reading. Martha highlighted that their research methods module expected them to do a proposal and dissertation in under 20 weeks with the same credits being awarded as any other module. This was disappointing for her as she felt the dissertation was her final project and because of the system she was "forced" to allocate the same amount of time on it as she would on other assessments in other modules. Boud et al. (2018) argue that with the many modules in degree, and some post degree courses, learning has become less focused. As each module is delivered by different faculty, increasingly sessional faculty, each academic feels the need to test the learning outcomes in their

individual modules with various assessments. In their recently published book on quality of learning, Boud et al, argue that instead of focusing on the course learning outcomes, the individual module assessments take away the quality of leaning.

The course has changed for the cohorts following the one interviewed, and research methods is now delivered to students during their second year. Students now can choose if they want to go on placement or continue into level six and both routes require students to complete their dissertation for the duration of their final year. Perhaps within the course all modules should be looked at, providing either similar "bridging" modules that continue into the next year or, at the very minimum, reducing the amount of assessment. If each module could have one assessment only with the option to complete a draft version by week nine, receive feedback by week 12 and then submit a final after the term has completed, in week 15; students would have the option do adopt a deeper approach to their studies.

5.7 The Impact of Lecturers

The most dominant factor mentioned in all student interviews, throughout the questions was the impact the lecturers have on the students' engagement of the learning and their knowledge retention. Across the seven students, a reference to the influence of lecturers were made 149 times, with 99 times the sentiment being recorded as very or moderately positive and only seven negative sentiments detected (the remainder 43 instances had no clear sentiment). Lecturers have the biggest impact on students *in business studies* retaining knowledge. The way they put the content across (with passion, bringing theory to live with stories and examples), classroom management, understanding the student and providing open opportunities for formative feedback and being clear about assessment criteria. Those lecturers that show concerns for academic performance and even personal development seem to be favoured: "*Our lecturer for module x is very nice and clearly cares about her students. She always asks us how we are doing and answers all of our questions. She remembers our names*". And: "*This one lecturer we had in our first year spent extra time with me outside of the allocated time and that really motivated me to carry on".* It is important for the students that a lecturer is approachable and can answer their questions in a way that they understand. As Lara mentioned in her interview: "*Some lecturers haven't got the patience, they get irritated by questions maybe they think I am dumb or not motivated as my attendance is low and when I do ask them a question they reply rushed or they use terms I don't understand."* And as few students referred to the way feedback is given can again motivate them to learn or not to learn: "*This one tutor in our second year when he said I had to be more critical yelled at me when I asked what that meant".* But also: "*I had a lecturer just last semester and they went through my essay in great depth not just commenting but also asking me questions on why I had written something etc. I learned so much in just*

half an hour and finally understood the terms on the marking grid. It made me extra motivated to study more for that module and to better understand what I was reading. And it even helps me now when I am doing my dissertation, in fact I am doing my dissertation on a similar topic and I never thought I would like this topic". Yet, John, one of the lecturers, did mention that he feels lecturers should be careful not to "*spoon-feed*" the assignments: ".*We need to aim for independent learners*".

Perhaps not surprisingly, also mentioned by all students and by most at several points in their interview, was the lecturers' knowledge of their subject and how they brought this knowledge to life: "*She always has real life examples for all of the theories discussed, some from case studies others from her own experience and that makes her class very special, I always remember those stories and it helps when I do my assessments.".* Navneet, as mentioned before, discussed how he became disengaged with a module in which he was naturally interested because of the "low quality" of teaching, but experienced the exact opposite with a module for which he had not naturally cared. This was all down to how the teacher managed to bring the theory a life in active class sessions. Most students made similar references to how much the lecturers have impacted their learning approaches, inspiring them to think in a deeper way about different topics often brought on by the stories, activities and discussions in class. Contrasting the students view though was that of the lecturers interviewed: "*When I ask the class questions during my lecturers, I get little response. It is always the same few students and the remainder stay quiet."* And*: "Most times when I ask questions, I don't get any replies I just answer them myself. The overall standard of our students is not very high, and this generation feel so entitled to getting help and good marks"*. And also: "*They don't like to think, listen, to be challenged*". Simultaneously, the lecturers appear to be making the sessions interesting, even by their own accord. Even though most of the lecturers still use PowerPoint as their baseline for disseminating information; the team are putting the effort in to make these as interactive as possible, mixing the slides up with short video's, interactive live polls, catching graphics and various mini projects. In addition, the students get taken on field trips and have a minimum of one guest lecturer by an industry professional per module. John says: "*Often with the large groups you can see them switching off. Either because their classes are too early or because they had a day of classes already. Or just because their groups are too large. I try and wake them up. When we have a lot of theory to go through, I will start off with some laughter yoga. I did a mini course in laughter yoga just so I can help the students".* And Deepika adds: "*I have realised a long time ago that the students will disengage after fifteen minutes and so I put in little exercises, even in lecturers. These will be class poles they can answer with their phone or mini group discussions*." Clara believes that the topic she teaches is perceived by students as boring from the outset and that they don't appreciate their knowledge being tested by exams: "*But that is the only way they will learn this material. I therefore designed the online test they can practice and now in class I break up the sessions giving them mini exams and then they*

have to mark each other". The lecturers encourage students to discuss and interact with them in class. The students commented on how they learn from the lecturers who relate the theories to recent developments in industry or how what they learn can be applied to the workplace. The lecturers confirmed that they encourage an active learning attitude in the students. The current literature clearly agreed with these sentiments, providing evidence that the different learning approaches by students are greatly influenced by the teaching environment. The research made a link between the different approaches to teaching and different approaches of learning. In those classes where teachers were "transmitting" knowledge, students tend to adopt a surface approach (Duffe et al., 2003; Lyke, Kalaher and Young, 2006; Chiesi et al., 2016). In sessions where academics adopt a more student focused approach stimulating them to consider their conceptions, students would adopt a deeper approach to learning. The student-centred approach adopted by the lecturers interviewed and referred to by most students, could be explained by the educational background of the lecturers and that they want their students to adopt a deep learning approach. The requirement of teaching qualifications and fellowship with the higher education academy has given them the knowledge of strong teaching methods as well as the encouragement to put this into practice. The lecturers' conception of teaching appears to have a direct link to the students adopting a deeper approach to learning.

5.8 Discussion: The Student Experience of the Relationship between Assessment Methods and Retention of Knowledge.

The literature demonstrated that academics are keen to develop innovative assessment methods which promote learning (Newstead, 2002; Cowan, 2010, Flores et al., 2015; Zlatkin-Troitschanskaia et al., 2016). In addition, there has been vast amounts of research on the advantages of formative feedback and the various methods of providing this, including feed forward (Clark and McCallum, 2001; Webster 2010; Flemming-Castaldy, 2015). The standardisation across the academic profession in terms of teaching qualif ications and membership of professional bodies is ensuring that individual lectures not only learn about the progressive research but also apply this to their own modules (Flores et al., 2015). For this study, I compared the attainment records of three different assessment methods: The traditional exam, an essay and a new innovative phased assessment (BLPAS). Moreover, 88 students completed an assessment experience questionnaire which gave insights into their approaches to learning and their experiences of assessment specifically focusing on these three methods of assessment. Seven students took part in semi-structured interviews where they further discussed their approach to learning and the extent to which this is influenced by the assessment method. The phased assessment method clearly stood

out in attainment record, with a median of 15 points higher than and exam and 11 point higher than an essay. However, in the assessment experience questionnaire, students rated it similar in terms of learning and retention as the essay an even slightly lower, with the essay scoring 4.0 points out of 5 and the phased assessment scoring 3.8 out of 5. Within the interviews though it became clear that those students who are naturally inclined to adopt a deep learning approach, prefer an essay as this gives them the ability to analyse a single topic in more depth. For strategic and natural surface level learners, the phased assessment does give the opportunity to learn all elements of a module in more depth and, the small chunks and regular feedback do lead to more knowledge retention. During the interviews, students also mentioned other forms of assessments, like portfolios, industry visit reports, presentations and practical assignments, which all inspired their learning in more depth and led to greater knowledge retention. Therefore, academics are right to adopt a wide range of innovative methods to assess students and to challenge students to reflect on their learning experiences. The individual module assessment should be designed as part of the course learning outcomes and be a stepping stone on a map that clearly shows a path from one module to the next where the student can see their knowledge increase on is able to apply this to industry and future learning in a critical manor. Constructive alignment is a framework developed by Biggs (1996) which aims to help academics to set clear course objectives and assessments linked to learning outcomes. Several students mentioned in their interviews that they enjoyed doing project-based industry reports either as individual assignments are within groups. Kevin and Alistair each commented that they recalled most if not all of what they had learned through this method. Deepika, who employs this method in one of her current modules, argued that students develop more independence in their learning and their problem-solving skills. Employers too have commented in the past that they prefer students to complete these type of assessments as they develop the soft skills they will need when joining the business world. Students will need to adopt a deep approach to find the best solution to certain problems and will have to conduct critical analysis, ask the right questions, develop communication skills and often work together in teams.

Alongside the discussion on assessment methods and their link to knowledge retention; a prominent factor from all the student data was the impact the lecturer has on student engagement and approach to learning as well as their learning retention. An essential part of promoting deep learning approaches and ensuring quality of learning and teaching is therefore a “student centred approach” starting at the course design, through to the assessment and individual module outcomes and, not at the very least, within the classroom (Peelo and Wareham, 2002). Students who learn through this method will seek to find the meaning behind the topic, they will aim to make sense of it through critical analysis, application and reflection (Bamford, 2008). They are clear on their responsibility as a learner to engage with their peers and tutor when seeking answers to problems set to them. In a teacher-led environment; the lecturer

disseminates knowledge solely through presentations, or talking at the students (Iversen et al., 2015). In a student-centred class room environment, the academics create opportunities which facilitate student learning through interactive teaching and innovative assessment methods (Iversen et al., 2015) Within a student-centred approach, the students are introduced to the theories and given examples through case studies, followed by problem based learning with peers which can be class discussions in lecturers or more interactive projects in seminars (Darricotte and McColl, 2008) Academics following this approach support the students' systematic investigations developing their knowledge, ability to self-manage and their understanding of their chosen profession (Peelo and Wareham, 2002) Through this method, students will engage strongly with the concepts they are learning and develop an ability to analyse what they learn and how they may apply this to future learning as well as industry.

The course team should aim to integrate the different areas of learning throughout the three different levels of study with a clear progression path, using assessment as a tool for students to recall their incremental learning. Courses which have clear learning strategies which are implemented from the start of their studies and have study support available throughout have a greater chance of students adopting deep learning approaches. When students can see how what they learn can apply to their future, either in industry or learning they are more motivated to gain a deeper understanding. For student-centred approaches to take place in the classroom, alignment of all teaching and assessment needs to take place at the stage of course design. When new academics become involved with existing modules, they will need to be briefed, and perhaps trained on the course learning path and philosophy of its learning, teaching and assessment methods.

5.9 Recommended Learning, Teaching and Assessment Methods to Encourage Deep Learning and Long-term Knowledge Retention

This research has followed the travel path of the conceptual framework introduced at the start of this thesis. The literature reviewed the history of assessments and the current methods of assessment in higher education. Both primary and secondary research provided valuable insights of the students learning approaches and how they experience assessments to influence these approaches as well as their retention of learning. Although the learning environment and in particular the ideas of student centred teaching were discussed in the literature, the primary data demonstrated the predominant impact lecturers can have on student engagement, their learning approach and the retention thereof. The below amended version of the conceptual framework therefor highlights these findings by putting a clearer emphasis on the link between retention of learning and the learning environment.

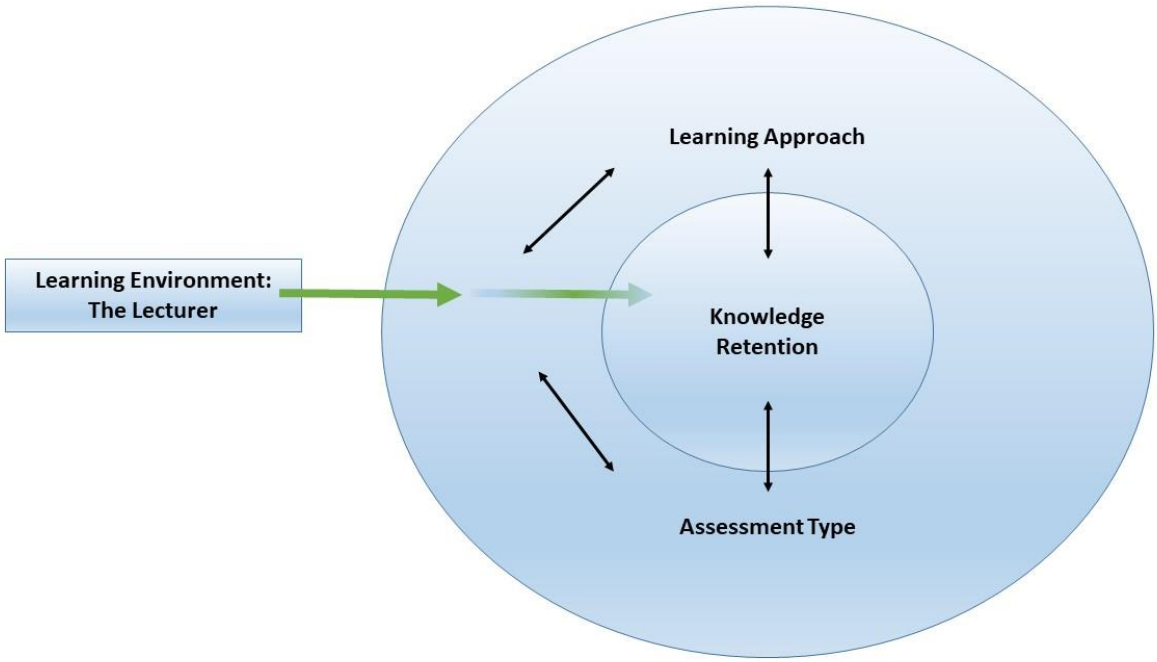


Figure 6: Adapted Conceptual Framework of Knowledge Retention

Constructive alignment of teaching and assessment methods and the principles of active classrooms and innovative assessment methods are not new ideas. Nor is the link to a possible deeper learning approach. Indeed, some of these ideas have been around for more than two decades (Gibbs, 1992; Biggs, 1996; Chalmers and Fulller, 1996). The literature argued that as students prepare for assessment, knowledge is placed into working memory and is quickly deleted by the brain once the assessment is completed, to make place for new learning, unless the learning is "tagged" by the brain of being of future value to the student either in future learning or the workplace. (Dunloskey et al., 2013). In addition, prior knowledge or understanding of a subject can have an impact on retention as the brain is more inclined to move that what is learned from short term memory into long term memory (Dunloskey et al., 2013). To enhance knowledge retention then, course teams should ensure that individual modules have overlap to other modules in the course, either in the same study year or during a future study year of the same course. If students know that what they learn will be of use again in the future, they might be more motivated to ensure they retain the knowledge. One way of achieving this overlap could perhaps be through an assessment method. Perhaps too often the academic team and students are concerned with the grade to be earned instead of focusing on the long-term relevance to the students' career objectives. There needs to be a clear future value of what is learned to start the process of memory consolidation into the long-term memory. To increase the possibility of long-term knowledge retention, key concepts

should be reinforced across multiple classes throughout the degree course. Students should see their individual learning modules as steppingstones. Just like the swimmer needs to learn how to swim without a floaty first, students should have the opportunity to practice what they learn through experimental learning opportunities which could be given as part of a student-centred learning environment as well as assessment. The next logical enhancement in higher education will be to take what is known about deep learning and to design teaching and assessment strategies that will make it easier for students to optimise knowledge retention throughout their lifetime (Bechtold et al., 2018).

5.9.1 Learner Assessment for Analysis, Application and Memorisation

This study aimed to understand the student perspective of the relationship between assessment methods and retention of learning. This research has shown that from the student experience, to achieve learning retention, they need active classrooms with tutors who engage with them as individuals, challenge their learning in a creative way that they can link to their future learning skills and application to industry. Yet there does not seem to be a clear model on how to implement these thoughts. We have the assessment experience questionnaire to diagnose problems. We have the teaching qualifications to give lecturers the theories and we have performance appraisals and awarding bodies to see if academics are putting some of these theories into practice. But from the student experience, there is no clear alignment. Each module varies from the other. Each academic varies from the other. There is no guarantee that they will get the same learning experience from one module to the next, regardless of their own input. There is no clear link between the different modules, the learning taking place and how what is being learned can be applied in future. The answer could be a clear model which may be adopted by courses in different institutions and that can ensure all academics, new and old, are following a similar approach to learning and teaching. The model or framework should show a visible progression path for the student from the moment they consider applying for a course up to the point of graduation. A path which will provide them with a knowledge base that they can physically take with them for future learning and employment. As a pragmatist, it only feels right to take the findings of this research to the next step and I in this next section, I will recommend a framework that may assist with this.

The proposed Learner Assessment for Analysis, Application and Memorisation (LAAAM) framework is divided into three significant parts: Course Level, Module Level and Class Level all following a constructive alignment of learning, teaching and assessment methods visible and always mapped to students. It is a suggestion based on the findings presented here but is presented tentatively.

At (1) course level, course leaders and their course team will begin by reviewing the learning outcomes of the course and create a visual map displaying how students' progress from module to module with clear links to the course learning outcomes. Each student will be required to complete an online Course Learning Portfolio (CLP) which is part of each module and graded at each module they complete. Within this the students are expected to: A) analyse what they have learned from the module B) consider

how they can apply what they have learned to future learning and their chosen profession (application) and C) consider what the key points are within the module that they feel they should memorise (memorisation/ knowledge retention).

At (2) Module Level the module leader needs to consider how the module always prepares the student for future learning and work and map this out to the student to be visible. Other than the CLP assessment, the module leader should design one further assessment which students should complete at the end of the module, with formative assessments due from week in week 10 of a 15-week module. When designing the assessment, the module leader should consider how it may encourage a deep learning approach.

At (3) class level the tutor needs to consider how they will bring the theory alive through either own industry experience stories or case studies. In an active class, a one-hour lecturer should be broken down following the below model:

15 minutes: Teacher-led dissemination of theory including an industry example.

10 minutes: In depth- class discussion based on a problem/case presented.

Repeat

In an active class, a two-hour seminar should be broken down following the below model:

10 minutes: Teacher-led re-cap on theories.

30 minutes: Creative peer research activity

20 minutes: Discussion

Repeat.

In addition to the above, lecturers/ module leaders should aim to dedicate one week of teaching sessions to an industry visit or a guest lecturer.

From week 10, when formative assessments are due, seminar times should be dedicated to giving individual tutoring to students giving verbal formative feedback which students can apply to achieve a more in-depth, deeper understanding of their assessment and learning.

The below table (16) shows the LAAAM framework summarised.

Table 16: The LAAAM Framework

Learning for Assessment, Analysis, Application and Memorisation		
Course Level	Learning Outcomes of Course	Re-visit with course team
	Progress Map	Map how students' progress from module to module with clear links to course learning outcomes.
	Course Learning Portfolio (CLP)	Online portfolio to be completed at end of each module and marked as an assessment for each module. Student to Analyse what they learned from this module. Student then to consider how they can apply what they learned for future learning or industry. Student then to consider what the key elements are to remember of this module.
Module Level	Module Leader	How does the module prepare the student for future learning and profession?
		How does individual module assessment promote a deep learning approach?
Class Level	Active Class Tutor	How will I bring theory alive through stories and case studies?
		Follow and "active" class lecturer and seminar model.
		Include minimum of 1 industry guest lecturer or visit per semester.
		Schedule time for individual verbal formative feedback to encourage more in-depth deeper learning approach

5.10 LAAAM Example

To illustrate an example of the proposed LAAAM framework, I have taken the course programme handbook of a BA in hospitality management which closed in July 2017. The course content includes modules specific to hospitality operations as well as contextualized business management modules. Within the course handbook, spread over four pages, the student is informed of the learning outcomes of each level. The handbook then presents the modules the student will undertake at each level which include 15 core module and 3 option modules, chosen out of a possible 11 modules. The modules are presented and explained in summary for 12 pages. Learning, Teaching and assessment methods are explained within five pages which include submission guidelines.

Within the interviews it was clear that from the student perspective that it is important for course teams to show how modules across different semesters and levels interlink and how they are mapped against the course learning outcomes. To complete this map I have taken all course learning outcomes and divided them into the categories:

- Knowledge and Understanding
- Critical Thinking Skills
- Professional Skills

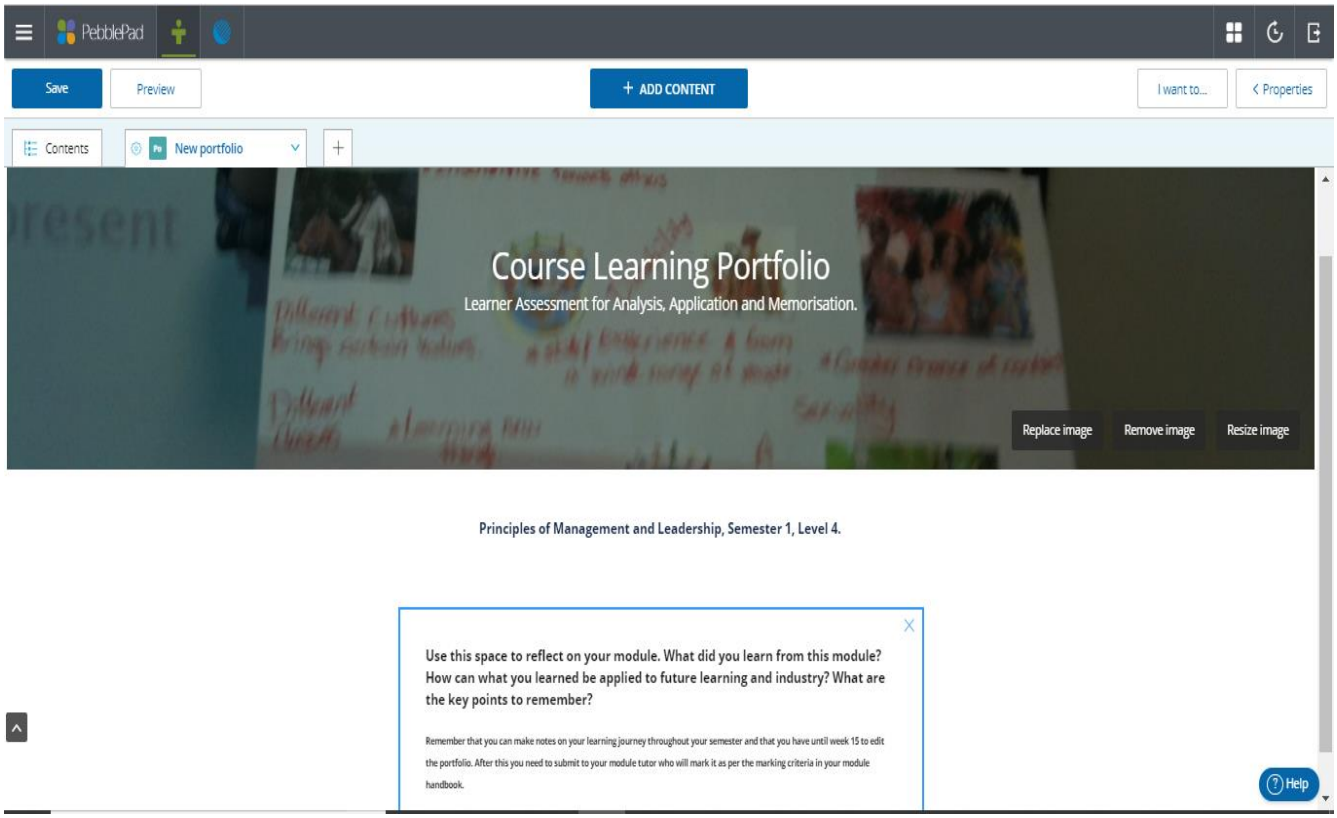
I then divided the learning outcomes across the three levels of study: level 4, 5 and 6 to demonstrate the progression of the learning outcomes to the students. I did not at this stage review the learning outcomes as this course has been closed however course themes that seek to adopt the LAAAM approach are recommended to review learning outcomes in the process and how these are mapped against the module learning outcomes. Based on their reviews, course teams may consider a re-validation of their course.

Next, I reviewed individual learning outcomes for each of the modules and grouped those that had similar learning outcomes at the different levels with elements of progression. For ease of the student, I gave each group a colour. This way a student can view in an instance how modules at different levels are interlinked. The module titles are shown in the same diagram to make it easier for student to visualise the connection to the course learning outcomes. The mapping was completed in an excel workbook and then saved as an image so that it can easily be transferred into course information accessible for prospective and current students as well as industry. Although for some the text may be small to read, saving all the information in one image, means students can download it on to their devices. The zoom functions of devises like phones and tablets will allow them to get larger script. Moreover, the course team could print of poster size copies and display these in their office or student halls. The progress map picture is presented below in Figure 7.

	Learning Outcomes Level 4	Learning Outcomes Level 5	Learning Outcomes Level 6
Knowledge and Understanding	Investigate and outline the breadth, diversity, complexity and commonality of the hospitality, tourism and leisure industries making connections with the political, economic, social and legal business environment.	Identify key issues associated with managing hospitality operations and assess their impact on the effectiveness of the operation, making recommendations for dealing with complex and unpredictable situations.	Examine critically the breadth, diversity and complex nature of the hospitality industry.
	Identify and describe the industry's operational characteristics and terminology and be able to explain the nature of the hospitality product and how it is delivered, recognising how this can be tailored to meet differing customer needs and expectations.	Explain theoretical approaches to the management of the market and their application within the hospitality context.	Explain strategic decisions within the context of the hospitality industry and formulate appropriate responses to complex scenarios requiring a professional and managerial approach.
	Explain the principles of customer care and the concept of service.	Apply sound financial principles to the management of the hospitality operation at unit level and evaluate operational performance using appropriate indicators, recognising and proposing solutions where problems occur.	Discuss the application of business ethics and management of change theories to hospitality company policies and practices.
	Be able to recognise and explain the need for numerical data for monitoring and control purposes.	Evaluate personnel practices within the tourism and hospitality industries.	Evaluate and apply appropriate theories and concepts from the generic management areas within the hospitality context.
Critical Thinking Skills	Analyse a range of information, applying theories to practice and comparing alternative theories, methods and techniques.	Demonstrate skills of research, analysis, evaluation and interpretation.	Can critically review the reliability, validity and significance of data and has an awareness of the provisional nature of the state of knowledge.
	Evaluate and formulate reasoned debate on topical issues of hospitality industry operations.	Assess the relevance and significance of data and reformat a range of ideas and information towards a given purpose.	Can demonstrate the ability to transform complex data, concepts and theories towards a given purpose and create innovative solutions.
			Develop a reasoned argument and challenge assumptions.
Professional Skills	Demonstrate the practical core competencies required to work successfully at an operational level in the hospitality industry.	Demonstrate the acquisition of technical competence in a chosen and agreed job function within the hospitality industry.	Access a wide range of resources and information from both academic and industrial sources.
	Demonstrate skills related to customer care and service'.	Demonstrate skills of being an effective employee in the hospitality workplace including personal skills and management and customer care skills.	Evaluate the business environment and its impact on the hospitality industry.
	Adopt a flexible, adaptable and professional attitude towards learning and developing academic study skills.	Demonstrate skills in managing processes associated with the planning, delivery and evaluation of the hospitality product demonstrating technical knowledge and appropriate use of the available resources.	Demonstrate a professional approach to fieldwork and dealing with industry personnel
	Demonstrate ability to manage one's own learning, reflecting on achievement and developing an appropriate action plan.	Communicate effectively using a range of appropriate methods and particularly developing interpersonal skills in the workplace.	Demonstrate the ability to communicate in a professional manner in a variety of formats to include detailed and coherent reports, essays, presentations and discussions.
	Identify an appropriate strategy for the development and evidencing of work related skills and experience.	Reflect on experiences, recognising learning needs and planning self-development in both a learning and work based environment.	Work independently with minimum guidance to use a full range of resources, knowledge and skills to solve complex problems.
	Communicate effectively in a clear and concise manner with all relevant information in a variety of formats.	Work effectively as part of a team demonstrating a professional attitude	Demonstrate skills of seeking feedback and using this to critically reflect on learning and develop strategies to meet self-initiated goals.
	Work effectively as part of a team		
Level 4 modules:	Principles of Management and Leadership; Academic Development and Employability	F&B Operations I; F&B Operations II; Rooms Division	Introduction to accounting and Finance
Level 5 modules:	Introduction to Human Resource Management; Research Methods for Managers	(2 options from:) Rooms Management; Restaurant and Management of Functions; International Beverage Provision; Corporate Events; Food Culture and Society	Financial Management for the Hospitality Industry; Sales and Marketing
Level 6 modules:	Service Industries dissertation/business project; Business Leadership and Professional Development (op); Strategic Management; Contemporary Issues and Management of Change	Service Operations Management; Strategic F&B Management (op)	(1 option from:) Revenue Management; Global Marketing; Hospitaity Information Technology

Figure 7: The Progress Map

For the CLP, I have chosen the platform “Pebblepad”. Pebblepad is a learner centred platform which was originally developed at the University of Wolverhampton to help students reflect on their work experiences via an online portfolio. The case University bought a licence to use the software in 2010. I have used the software across various modules. Initially for the same purpose of work portfolios, but later I started to use it as an interactive platform to give students additional online resources, as a feedback tool for phased assessments and for students group work. At present the case university has not added new student users since 2016; however, existing academic users can still access it to create new material or to review past work. Student alumina have “lifelong licences” meaning they can access the work they created on the platform for the indefinite future. The software allows users to share their “assets” (any type of file they have created or uploaded) amongst peers in an assigned group, with lecturers or with the public. For the purpose of this study I created an example CLP with a screenshot of this available below.



I have also made this example public, which means that readers of this study can access it by following this link: https://v3.pebblepad.co.uk/spa/#/public/k8c6y9HZ98jrsg98f9gdsds4dM .

The platform would allow the student to continue working on their CLP for the duration of their studies and to share certain pages (modules) or full CLP with their individual tutors. They could receive formative feedback on the CLP at any stage. The course team can include extra pages including the *progress map* and specific module information to remind the student of their learning journey and to promote a deep learning approach. Students could also choose to link any other completed assessments into their CLP for their own future reference. Once the student has completed their degree, they could decide to make a final edit to the CLP or to copy parts of it into a new portfolio. These could then be made public and links could be shared on their CVs, demonstrating to future employers or future postgraduate studies that what they have learned from their degree.

Although the proposed LAAAM framework would need to be tested first; I believe that by introducing the progress map, CLP, considered innovative assessment and student-centred active classes; courses will see students engage with all learning, adopt a deeper learning approach and be able to demonstrate learning and knowledge retained to themselves, peers, academics and industry.

5.11 Chapter Summary

This chapter analysed the findings of the quantitative and qualitative findings of this research and, underpinned by the literature findings, discussed how these answered the four research questions set out at the start of this study. The study concluded that to encourage students to adopt a deep learning approach and have subject knowledge retention, academics should consider a student-centred assessment and learning experience. Considering the student experience data analysed in this chapter, I developed and recommend the Learner Assessment for Analysis, Application and Memorisation framework and have given an example on how this may be implemented on a course similar to the one that participated in this study.

CHAPTER 6: Conclusion

In the previous chapter, the findings showed that the right learning, teaching and assessment strategy can lead to the student taking a deeper approach to learning and knowledge retention. I proposed the Learner Assessment for Analysis, Application and Memorisation framework for this purpose and gave an example on how this may work in practice. This final chapter will discuss how this study contributes to knowledge in terms of our understanding of the student experience of learning and examine the implications the study might have for both academics and students. I will critically review the methodology applied in this study for future researchers in the field and analyse the studies limitations. Finally, I will make suggestions for future research.

6.1 Summary of the findings.

This study aimed to understand the students' perspectives on the relationship between assessment methods and the retention of learning in higher education. To answer this question, five stages of primary data collection were carried out through an embedded mixed methods design and then compared to findings from the literature. The unique set of data comprised:

- Attainment data for three different types of assessments
- Learner analytics on engagement for a cohort of 105 students covering a two year period
- An analysis of a full BA course assessment and feedback volume
- The student experience of these assessments both in quantitative and qualitative form
- The learning and teaching methods employed by a team of lecturers.

The findings demonstrated that the students want active classrooms with tutors who challenge their learning in a creative way using stories, case studies and assessment strategies which can be linked to their future learning skills and application to industry. Such learning, teaching and assessment strategies will help the student embed this learning into their longer term memory.

6.2 Contribution to Knowledge

The introduction of this thesis discussed the travel path, or conceptual framework, which formed the foundation of my research questions. The literature review clearly demonstrated the history of assessments and how these have always influenced students' approaches to learning. Current research has further demonstrated that the learning environment has an impact on a students' approach to learning, with student centred teaching encouraging a deeper approach. The literature argued that this deeper approach to learning has an impact on retaining the knowledge gained.

This study is unique in its research design and methods of data collection. No previous study has considered student analytics of a two year period, which include various assessment attainment data and student engagement data and contrasted these with the views expressed verbally by students and lecturers. Through this original research design the points discussed in the literature were brought closely together whilst examining the students' perception of the different assessment methods whilst considering factors which may influence surface and deeper learning from their point of view and their possible link to knowledge retention.

The key finding of this study is that, from the student experience, individual academics can have a great impact on not only the approach to learning a student may undertake but also their retention thereof. This impact is found primarily in their assessment design, class management/teaching methods and individual support offered. The quality of teaching has a significant impact on the students' approach to learning, and therefore quality of learning. From the student experience, quality of teaching can provide the environment in which learning can take place, allowing the student to construct understanding and knowledge of the learning outcomes.

The study found that from the student experience; assessment is a dominant factor in the students' approach to learning and they want clarity on what they need to do to not only pass their courses but to achieve distinction marks. From the student experience, assessments have an impact on their learning approach. When assessments appear to reward surface learning approaches, like exams, most students will adopt a surface approach to learning with little retention thereof.

The present study makes a contribution to wider pedagogy in that it has considered a way to design and deliver curriculum and assessment methods to maximise student learning and retention of learning, in particular considering those students who have lesser engagement opportunities. The concept of "LAAAM" provides a framework to integrate these findings and act upon them, creating a platform which should stimulate a deep l earning approach by students and help them retain the knowledge gained

from their learning. Although the concepts of student centred learning and teaching and active classroom management are not new terms; the LAAAM framework is a new, original idea which will enhance the student experience with a visual progress map to be followed for the duration of their course, identifying the links between modules and recording their learning as a progression in online environment.

6.3 Limitations of this Study and Future Research

This study looked at the quantitative attainment and engagement data for three modules of one cohort of students, from one school in one modern University in London. It then asked the same cohort of students to complete an adapted version of the assessment experience questionnaire by Gibbs, providing quantitative data on their learning approaches. From this cohort of students, seven were interviewed and asked to provide further insides on their experiences of assessment and learning. Furthermore, the lecturers whose module were reviewed for engagement and attainment data, participated in a focus group discussing their learning, teaching and assessment methods and influencers thereof.

Although there has been much discussion in the social sciences literature of using quantitative or qualitative research methods (Sarantakos, 2005), this study has shown that combining the elements provides for rich data which allows the researcher to form a fuller picture. The attainment data revealed the basic difference between a method of assessment, which could be completed solely through a surface approach (the exam), the traditional essay which should be completed through a deep learning approach but does not always encourage the student to consider all of the modules concepts and theories discussed and the phased assessment which could encourage a strategic approach. The engagement data gave me an insight into the cohorts' attendance in class as well as online and therefore a picture of their more generic engagement with learning. The questionnaire was answered by almost everyone in the cohort and provided some insights into their approaches to learning and how they felt different assessments impact their learning. Through the interviews and focus groups, I was able to "zoom in" on all the quantitative data available and fully understand the students' experience of assessment and its impact on learning. I was fortunate that I was able to interview students with different levels of attainment and engagement, and the quantitative data available allowed me to ensure this before the interviews commenced. During the interviews, I became aware of how much of an impact the lecturer has on all of this data and which led me to design the LAAAM framework.

Used by more than 40 institutions in four countries, this study re-confirms that the assessment experience questionnaire is a convenient tool for course teams to evaluate their students' experiences and approaches to learning. At a very minimum, the pre-requisite of the test is to complete an audit of a

course assessments, their types, methods of feedback and volume. This exercise is useful for any course that aims to benchmark itself against the norm and to make the necessary changes. Still what this study has demonstrated the usefulness of having further data available, like attainment, engagement and verbal dialogue, to understand the reasons for students' responses to the questionnaire. The questionnaire considers only learning approaches where within interviews and other means retention of learning can be explored.

Without question, the results of this study are useful; however, some limitations should be acknowledged critically. The sample size is relatively small, meaning it would be difficult to generalise the findings from both the statistical data and the qualitative data. Additionally, I was only able to survey and talk to "outgoing" students. Although this ensured the students would feel a minimal impact of the student-teacher relationship, with me as a researcher, it limited some elements of the research. If I could have followed this cohort from the start of their studies, or even from the time that they completed the three modules at level 5, I might have observed changes in their learning approaches and the influencers thereof. A longitudinal study with regular interviews may provide more valuable findings for future research. In addition, this study was limited to only one school. The student learning experience may be influenced by the culture in the school and the academics it recruits. It would be interesting to compare cohorts, with similar profiles, from two different schools within the university and to see how their learning experiences are further influenced by the subject they study and the culture in their school. A comparison would also provide insight if the LAAAM framework could be an option for implementation across different disciplines.

Moreover, this study set out to understand the student experience on assessments and their relation to learning retention. The findings demonstrated a clear link to a deep learning approach and longer learning retention, but again the importance of student-centred teaching approaches. For students to remember their learning, they want to associate it with the stories told by their lecturer and the discussion and activities held with their peers and tutor. When a session has been engaging, students will continue to discuss it beyond the classroom with their peers but also with their family, friends and colleagues. This will further ensure the knowledge gained will be retrained. However, the study was unable to measure the knowledge gained by students in any quantity. In the initial research design, I had planned to also test the students' knowledge of the three modules reviewed. I had planned to ask the students who were participating in the interviews to complete a small test paper which had questions linked to each of the three modules and to then mark these and see which module would come out "best" and how this could be linked to the assessment method and learning approach. However whilst designing the "knowledge test" I realised I would not be able to test the students' knowledge of all of the learning outcomes of each module as this would take the student a long time to complete and the test could lead

to the students not giving true accounts of their experiences during the interview. Therefore, all references to knowledge retention within this study are based on the student accounts given in their interviews. There is very little research on actual knowledge or learning retention and most has been conducted in the medical sciences. Future research might want to consider finding a way of testing knowledge retained in business studies or social sciences. An alternative could be the implementation of the Course Learning Portfolio, or something similar, which will physically hold the learning gained for the student, and when revisited by the student throughout their studies and afterwards may lead to natural recall.

The results of this study could be used to demonstrate to academics the extent that their conceptions of learning, teaching and assessment method can have on quality and approach of student learning. I have suggested the implementation of the LAAAM framework to assist course teams in creating an environment in which the student experience stimulates deep learning and from there, learning retention. Although individual academics joining the profession are now, in most UK institutions, required to obtain a related qualification and to evidence their practice for fellowship of the Higher Education Academy; effective teaching is not simply a matter of applying general principles of teaching. For streamlined learning, course teams need to have aligned learning, teaching and assessment methods and be willing to reflect on their own methods and effectiveness in the classroom. Instead of workshops or course meetings, perhaps one way of achieving this would be to include the entire course team in a research project like this, involving them with interviewing students or having discussions in class on the students' approaches to learning and the influences thereof.

Unique to this study was understanding the student experience of learning and assessment and understanding what, in their opinion, good teaching constitutes off. This research may be used to help support the development of teaching skills in academics and, no less important, to show them the importance of understanding the student perspective and experience of learning and teaching.

6.4 Final Remarks

Before joining the University nine years ago, I worked in industry. I started in a junior position and, alongside my studies, worked "my way up" to first operational management and then strategic management positions. My last role in industry was heading up learning and development across 25 branches and nearly 3000 employees. At the time, I was working closely with universities to ensure students would know which graduate skills were sought by the workplace. As I studied for most of my working life, I appreciate the pressures many of our students face and the hard choices they often have to make. In my role as a senior lecturer, I strive for students to be able to meet all their goals. From my initial research for the PGCERT, I believed that the right assessment method could make all the

difference. Yet, this journey has shown me that it is much more than that. Where traditionally all students would come to lectures with notepads, we now assume they prefer learning from their online lecture slides and recordings. However, the students who enrol for physical education (not digital) are looking for that interaction with their tutor and peers. They want the theory to be brought to life through discussions and thought-provoking activities and are happy to reflect critically on their own learning. They use the online resources as aids, to support their learning, but not as a replacement. They are assessment focused but become engaged with the assessment not because of the mark they can get at the end but because of the way the theory has been put into context and explored in class. They want to take what they learn in class and study it in more depth to get to their own answers.

I am now keen to share my findings with my colleagues and to work as an educational developer in our new institute of education. I look forward to debating and discussing the findings with the wider education community through publications and conferences. I trust this study can encourage our team to reflect on the approaches to learning undertaken by our students and the impact individual lecturers have on their quality of learning. I look forward to implementing LAAAM on our new course and work together with our research department in following its impact on students' approach to learning and knowledge retention.

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Appendix A: Survey Questions

Please respond to every statement by circling 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; and 5 = strongly agree to indicate the strength of your agreement or disagreement

Programme of Study: …… …….

Biographical Data: (please tick as appropriate) Female……. Age (17 -21….) (22 -30)…… (31 +……)

Average achievement on this course: (1st……); (2:1…….); (2:2…….) (3…….)

Please respond with respect to your experience so far of the programme named above, including all its assessment components

1	I used the feedback I received to go back over what I had done in my work	1 2 3 4 5
2	The feedback I received prompted me to go back over material covered in the course	1 2 3 4 5
3	I received hardly any feedback on my work	1 2 3 4 5
4	You had to study the entire syllabus to do well in the assessment	1 2 3 4 5
5	The assessment system made it possible to be quite selective about what parts of courses you studied	1 2 3 4 5
6	The way the assessment worked you had to put the hours in regularly every week	1 2 3 4 5
7	It was always easy to know the standard of work expected	1 2 3 4 5
8	I paid careful attention to feedback on my work and tried to understand what it was saying	1 2 3 4 5
9	The teachers made it clear from the start what they expected from students	1 2 3 4 5
10	The staff seemed more interested in testing what I had memorised than what I understood	1 2 3 4 5
11	It was possible to be quite strategic about which topics you could afford not to study	1 2 3 4 5
12	It was often hard to discover what was expected of me in this course	1 2 3 4 5
13	On this course it was necessary to work consistently hard to meet the assessment requirements	1 2 3 4 5
14	Too often the staff asked me questions just about facts	1 2 3 4 5
15	I didn't understand some of the feedback on my work	1 2 3 4 5
16	Whatever feedback I received on my work came too late to be useful	1 2 3 4 5
17	The way the assessment worked on this course you had to study every topic	1 2 3 4 5
18	To do well on this course all you really needed was a good memory This questionnaire continues on page 2.	1 2 3 4 5
These questions are about the way you go about your learning on the course		
19	When I'm reading I try to memorise important facts which may come in useful later	1 2 3 4 5
20	I usually set out to understand thoroughly the meaning of what I am asked to read	1 2 3 4 5
21	I generally put a lot of effort into trying to understand things which initially seem difficult	1 2 3 4 5

22	I often found myself questioning things that I heard in classes or read in books	1 2 3 4 5
23	I find I have to concentrate on memorising a good deal of what we have to learn	1 2 3 4 5
24	Often I found I had to study things without having a chance to really understand them	1 2 3 4 5
Learning from the exam		
25	Doing exams brought things together for me	1 2 3 4 5
26	I learnt new things while preparing for the exams	1 2 3 4 5
27	I understood things better as a result of the exams	1 2 3 4 5
Learning from the Essay		
28	Doing an essay brought things together for me	1 2 3 4 5
29	I learnt new things while preparing for the essay	1 2 3 4 5
30	I understood things better as a result of the essay	1 2 3 4 5
Learning from the phased assessment (BLPAS)		
Doing a phased assessment brought things together for me		1 2 3 4 5
I learnt new things while preparing for the phased assessment		1 2 3 4 5
I understood things better as a result of the phased assessment.		1 2 3 4 5

Comments you would like to make:

To complete this survey online, please follow:

https://pollev.com/surveys/QlXl18p12?_ga=2.161484602.74484564.1520852226-1761668004.1520852226

Appendix B. Interview Questions Students

Interview questions (Adapted from TESTA, 2017)

Introduction
Thanks, consent forms, introduce yourself.

"I'm interested in understanding how you respond to the way you are assessed – how it affects how much you study, what you study, when you study and how you study. What I'd like to do is tape the interview so that I have a record. I will then transcribe the tape and write up a record of the interview. If you prefer I can use a pseudonym for you in the transcript? You can decide when you read the transcript. One other thing, for ethical reasons, it would be good if you don't name your lecturers directly but refer to them indirectly or by the module etc.

Interview

1. "Tell me about how you are assessed – what assessment on your degree programme consists of".

Prompts:

- Can you give an example?
- Is that a general feeling – do you all think that?
- Why do you respond like that? Frowning? Smiling?
- Prompt them to mention all aspects of assessment (especially including feedback, but also the form assignments take, criteria, marking schemes) so that they come to understand what you mean by assessment and by an assessment system or regime.

2. "Tell me about the feedback you receive – what do you think of it?

- prompt them about what they think feedback – the various forms feedback may take, how they use feedback, what its limitations are, what the point of feedback is, whether they read it when they receive their marks, whether marks are more important than words; if they have received oral feedback on work in tutorials, how useful they find

whole class feedback, whether they get this? How long it takes to get feedback and whether this has an impact?

- How does your feedback help you do better across modules?

3. "Tell me about how the way you are assessed affect your studying – for example determining to some extent what you pay attention to, or leave out, what you spend time on, how much effort you put in, how engaged you are, that kind of thing…."

    - explore if this has changed over time as they have become more experienced as students – over the years
    - How consistent is the advice/guidance you are given by lecturers?
    - What assessment related factors motivate you to take your optional modules – exams/no exams; lenient markers/fewer assessed pieces etc?

4. "Tell me about how you have come to know what you are supposed to be doing and how you know what is likely to get good marks or to pass or fail?"

    - prompt them to give <u>specific instances</u> of general ideas they mention – for example if someone says "I don't really understand what they want half the time" then probe how they DO get to find out, if some courses are clear and others not, or whether the whole thing is a blur, what they would ideally like in terms of clarification, whether what they want differs between courses or years etc.
    - how consistent are the messages about assessment – do you always know what is expected or is it a bit of a guessing game? prompt them about how they use criteria, whether they have assessed their own work, or peer assessed, or been shown models of good practice – do they know what quality looks like?

5. Retention of learning. "Do you feel that different assessments help you retain the knowledge of the module long term? Why?

    - Prompt: Overall, does the way assessment works help you to learn well, or does it interfere or cause you difficulties."

Appendix C. Focus Group Questions

Introduction

Thanks, consent forms, introduce yourself.

"I'm interested in understanding how students learn and how much this is influenced by assessment. What I'd like to do is tape the session so that I have a record. I will then transcribe the tape and write up record of the session. If you prefer I can use a pseudonym for each in the transcript?

One other, thing, for ethical reasons, it would be good if you don't name each other, other colleagues or students but refer to them by their title or perhaps module. So, when we do the focus group, try and speak clearly and not overlap with each other.

Question 1. How familiar are you with the terms of surface and deep learning?

Prompt: Strategic Learning

Question 2:

In general, what approach do you think our students have to learning?

Prompt: Assessment, holistic, career goals.

Question 3:

Does this x learning approach generate learning retention?

Prompt – explain what this is if there is confusion.

Question 4: What learning do students need to retain?

Prompt – consider graduate, professional and employability skills and continues studies.

Question 5: When you design modules, do you keep learning (and retention thereof) in mind?

Prompt – do you consider deep learning?

Question 6: Do you feel different assessments have different impacts on learning?

Prompt – learning approach.

Question 7: How do you feel students engage with their studies?

Prompt – in sessions and online.

Question 8: How much influence do you think feedback has on learning?

Prompt – formative, verbal, written, summative.

Prompt – and retention thereof.

Question 9: How much influence does the lecturer have on learning?

Prompt – engagement, pragmatic/academic/ expertise

Question 10: How much influence does the learning environment have on learning?

Prompt – class sizes, facilities, time tabling

Appendix D: Interview Schedule

Participant	Date of Interview
Student 1	04 April 2018
Student 2	12 April 2018
Student 3	18 April 2018
Student 4	18 April 2018
Student 5	23 April 2018
Student 6	23 April 2018
Student 7	23 April 2018
Focus Lecturer	10 May 2018

Appendix E: Lecturer Transcript

IK: OK so erm thank you for signing the consent form

Lecturer1: Which I have.

IK: Yes, Thank you. Um so there are a lot of studies out there that look at assessments um and also their link to learning. I'm more interested in retention of learning and the link to assessments. So how familiar are you with the terms surface and deep learning?

Lecturer 1: I am familiar in respect to CPD and. and professional development and my teaching qualifications so within the research. uhm my understanding. my thinking is of John Beaks when I think of a deep and surface learning and um but so deep learning is that learning that is to understand it's learning where actually you are able to um kind of comprehend and understand the material being tackled whereas surface learning will be much more um sort of rote learning or perhaps a recall approach.

IK: Mmm.

Lecturer1: .and where you are recording information but not necessarily with the corresponding understanding of the information.

IK: So rode learning or surface learning we would see often for exam preparation and sometimes even for essay preparation. And what about strategic learning, have you come across that?

Lecturer 1: Strategic learning um so I mean I would have made a little bit of an assumption but strategic planning is an approach whereby you are only tackling the material that you feel has value and I'm gonna make an assumption here in terms of your topic...value in relation to the assessment what's needed for assessment.

IK: Yes, so strategic learning has not been in discussed in great length in literature, but the literature does touch up on um where students would look at assessments, what is needed for the assessments and learn...and sometimes even have a deep learning approach to that element of the module content but not necessarily look at the wider elements of the module, wider reading list, so the study is kind of trying to work-out 1st of all what approach to study do our students have. how much is it influenced by our assessment system in higher education that we have and does this in anyway, the approach to learning that they have, influence learning retention. So in general what what approach do you think most of our students have to learning?

Lecturer 1: I think without shadow of a doubt an awful lot of our students...not all but um a significant an possibly a majority of our students adopt a strategic learning approach. I think that it's um an unfortunate consequence in my view of many things that influence it I think the marketization of higher education has contributed to it and the fact that the growth ensure the widening of

participation of higher education means that now um significantly more students have conflicting demands and commitments whether that is childcare. part time work. full time work. as we all to often see um which means I suspect that they feel they have no choice. I disagree but they would say that they have no choice but to focus solely on the assessment because of time pressures. But also um the fact that they have been given this message now all that um you know the purpose of getting a degree is to get a piece of paper and a subsequent job at the end of it. And that is the overriding priority, that is what they come here for and therefore they don't see the wider growth potential; learning in a more holistic sense.

IK: Uhm. Now when talk about learning retention…in my research I am describing it as a way that the student retains knowledge of a module that they have learned in their early parts of their studies, all the way up until the end...maybe they have done a placement year in between.um… do you think that strategic learning facilitates that?

Lecturer 1: I don't know if it is necessarily down to strategic learning. I think that especially here and very anecdotally comparing here with my previous institution which was a very similar um demographic which therefore maybe suggests that it is something getting worse with time instead of a difference between institutions although I want to say that there is a difference between some institutions but I think that our students particularly really seem to struggle not even just relating uhm the learning...the concepts that they are learning. from one module early on...lets say the first year...to content that they learn in the third year..but actually even in the same levels...it often suprises me how our students seem to have, have real trouble applying things that they will learning in module A to something that they are learning at the same time in module B um I think that it is perhaps more generally a consequence of modularisation of degrees the fact that we present to students these various subjects as discrete packages and um and perhaps don't do enough to get them to understand that they need to be kind of um cross reference if you will, the different things that they are learning but certainly without a shadow of a doubt it feels to me that it is a really major hindrance as they progress in that it never ceases to amaze me and I think I have always seen it an extent um since um I taught in higher education but it never ceases to amaze me how students will come into a new level and it feels like they forgot everything that they have learned before.

IK: Umm. And when you talk about forgetting is it about the type of writing. so graduate skills. skills being critical erm …researching. or is it also more the contents so when you maybe have modules leaning on to the next level of management or principles of their studies.

Lecturer 1: um I think probably more the latter um I think that that the skills development we see um is often more unseen um both to the student and, and I think to teachers. it is perhaps quit easy to

think: I come back into say level 5 and I dismiss the fact that I have seemingly developed from level 4 but to a certain extend that will be kind of blindness on my part.in terms of there probably has been a development and so I think that um the skills I think do develop just perhaps not at the rate that we would like. Um the knowledge on the other hand I think what is difficult to distinguish is the extent to which it has been forgotten verses to which it is it hasn't been forgotten it is deemed by the student to be no longer relevant. They have done that module. It is now finished, they have got the mark for it, let's move onto the next piece-and I think that you know I suspect that if you were to do a degree of recall it would still remain. a degree of understanding would still be there but they don't actually access even if they could you because it feels like it's done forgotten.

IK: in the very origins of my research it was actually because employers keep arguing students haven't got the skills when they go into the employment market and yet universities are trying to work really close with employers to have the right modules, have the right content etc. And so that is kind of where it originated. So how much knowledge do the students than actually retain.

Lecturer 1: I wonder whether it's a simular thing in that I would suspect that if you speak to our students, you would have a number that would even argue that what they learn on their degree is not relevant to the job they are gonna do and again therefore that's why they almost choose not to recall um you know perhaps unconsciously but because they don't feel it is relevant they again think I have done my degree and I now need to learn this from scratch to an extend...it's perhaps an extreme way of painting.

IK: Do they need to retain?

Lecturer 1: Retain knowledge, yes some. And I suspect this is where there will be significant variation across subject disciplines and even within the subject discipline there would be significant difference across um different topics even and then likewise you would see a corresponding difference depending on the job they are doing. Would a medical student need to recall various concentrations of drugs um yes absolutely will although arguably now whistle living in an age where I think the requirement for recalls has gone down. given now the ready access to information and I think there is a strong argument that actual we should move away from recall type towards actually developing on those skills that um finding and sourcing information um you know kind of do we do enough to teach searching the Web or searching databases or you know being able to draw up information and date from sources probably not I think we've,, we've made some progress but we nowhere near where we should be um you know but is there is there. would you need to recall um the social impacts of an event on a local community. no you probably don't necessarily need to recall that information. recall the theories. but those kind of topics are delivered for a different purposes...I would say despite the fact that you don't need to remember those. the process of studying those topics is to make um the student at more rounded manager in industry to get to

a thought about in a critical way um you know some of these aspects that will make them a more analytical. critical person out there in the world looking up not just 1 perspective but many and that's sort of...those skills development which I think is equally important so there will always be some recall aspects but um probably maybe even across-the-board those recall aspect in the future would become less important than the skills developed.

IK: When you design your modules, do you keep any of this in mind? Do you think about deep learning? Is it something we think about when we?.

Lecturer: I think we should. I think and I think I'd like to think that the we all do. I think that one of the hopefully positive influences of the increase of the professionalisation of the teaching workforce through the required accreditation and qualifications etc. does give us the opportunity at least to um think more explicative about, hopefully leads to research for approaches to teaching. But I think that that is balanced with conflicting demands of pressures institutionally. I would almost argue that, you know, it is a moral obligation to try and create deep learning. I mean I it is implicit in what we are meant to do as a University. However I'm also under pressure to ensure my module results… to ensure mark profiles are where they should be. to ensure that students simply complete um you know where they can and I think that some of those pressures will take us in the opposite direction and so I think that I certainly do you explicitly consider um trying to develop and increase the amount of deep learning but I think that there a pressures that can also push it the other way.

IK: So do you think different assessments have different impacts?

Lecturer: Yes and so uh I mean I think it is quite difficult to um so that distinguish between um the sort of deep learning focused on assessments you and I suppose it comes down to the you know assessment OF learning versus assessment AS learning in that certainly I try as it is a given and I think it almost more as a direct result of noticing the strategic learning approach I try where I can to develop assessment as learning um because actually I am almost resigning myself to the fact that I know they are not going to engage if it is not related to the assessment. And so almost trying to see the assessment as a vehicle for uh, trying to facilitate that sort of deep learning approach um so I tried to do that but then I mean and interestingly there are times that I might you know perhaps go the other way from a deep learning approach but linking always creating assessment as a more surface approach to try and get my students to engage. Take for example the you know uhm the assessment I developed in relation to business leadership. So uhm I moved away from the traditional essay which I think you could approach it from a deep learning perspective but you could approach it from a surface perspective...in that you could see both of those and perhaps many in between across the many students to that assessment but umm ultimately I would describe it as a very thin but deep form of assessment hm you know it would you usually take one or two topics and expect students to show critical engagement. it was a level 6 module so it needed academic

research but I replaced that with a very approachable requiring..but less debt of engagement but across a greater range of topics so that each week contributed towards the assessment uhm and I realised and I am now very conscious that I would be losing some of the debts so it would be harder for students to show critical analysis. So um the thee valuation when you're not going to that same level of debt but what I was gaining was to...I wouldn't say force...but to encourage- because some students were still disengaged- but it would encourage more. a more consistent level living of engagement across all the topics that we cover. Because of that strategic approach. I don't think it was the response that students would like but it was in direct-response to students consistently saying comments along the lines of "is it related to the assignment if it's not I don't care" um you know or, or when they explain why they don't attend because they think it's not related to the assessment. Uhm you know I suspect you know that the solution what would be preferred is just less assessment across the board...but this was my response given that that is not practical...in any sort of you know moral sense. My response was to make all the topics equally important as all the others.

IK: And do you feel that with that approach - of course you mentioned you still have some students being disengaged- but do you feel like with the remainder students they are engaging more with topics on a weekly basis then they would have done if it was an essay?

Lecturer 1: Yes but probably not to the extent that I would have hoped in that I suspect that those students that wouldn't engage either way would have applied an equal if not more surface learning approach across the tasks which would suggest that actually it's not necessarily -I don't think the link is quite as straightforward as assessment equal deep learning. Because here was an assessment that still allowed for surface learning approach just a small amount of surface learning...and you can fake your way through the assessment? Yeah absolutely I think you can and I think that I would be very hesitant to design assessment and, and this is. -I will always be ashamed to say- I'll be very, very hesitant to design an assessment that was impossible to not adopt that approach because I think that my failure rate on that assessment would go beyond what would be deemed as acceptable for the University I think that perhaps what has changed over the course of decades is that once upon a time ultimately that if you were to show…uhm if you would be able to simply demonstrate that you had adopted a deep learning approach to your studies at University then you know the person marking process would find a way to get you through. I think that now I think that that this the standard. the benchmark that that applies I would say it is now gone up to you know you would almost say if aI 1st class level student can demonstrate that deep learning engagement uhm um you will fight to get that student the best mark possible um but that does not apply at the threshold pass level I think that we have designed a system and our assessments very much to allow but

perhaps restricted in mark but to allow a student to consistently adopt a surface learning approach and still complete and pass.

IK: Yes. And do you think with this assessment maybe it's a disadvantage to deep learners because they almost put into becoming a strategic learner..

Lecturer 1: I think we do encourage it I think. well I don't know and not I'm not entirely sure. I think that the we certainly don't push uhm students enough to adopt a deep learning approach but I don't think we would necessarily stop students but that is there is no incentive um to do it and I think that nothing that there are not that many students who do. I think that I would be hesitant to say because actually I think I do still see enough students that are engaged to give me hope that they still exist and uhm but yeah I don't think that we do enough...I don't think that we help to...we sort of yes we don't get in their way but my goodness we should actually be encouraging it and incentivising it but we don't. Because I think I try and put myself in their shoes of those students and think how frustrating it must be looking around when you are doing all of this work looking around with your peers who are doing a small fraction of the work that you are doing and are still progressing. complete and that must be terribly frustrating but I think they do it because they are one of the few perhaps when you look at the stats. they are of.. of the proportion that would have gone to University even before we broadened out the. the numbers…those are the students that are in it for the personal learning rather than necessarily the qualification at the end.

IK: So you think most students are in it because of the qualification… a tick Box and ….and getting the job?

Lecturer 1: yeah I think I think. and whether its most. whether it's a significant proportion. I don't know the numbers...my feeling is that it is most and it is certainly here at this institution...it is what it feels like for most of the students.

IK: How much influence do you think feedback has on learning?

Lecturer 1: I think there are lots of variables...to give a clear definitive answer. I think that feedback if done well can have a very significant impact Um but I think that's all too often and I would include myself in this...all to often we don't we don't actually provide feedback we, we justify the mark and, and I think that we do that not just because we feel should I think that we do that because um I think that is what students want. Um yeah I think that that you… when you look at um your students that engage with feedback. it often feels like they just want justification of their mark. And I think it is compounded by the environment in which we are now in where we are so concerned about student complaints and uh you know the fact that students can just complain and it is automatically kind of driven. You know once upon a time...I don't think anyone...it wouldn't even come into students mind to complain about academic judgement because you actually the student isn't qualified to you know critique the academic judgement but we feel like we are in an

environment where we are moving away from that. This simply makes our approach to feedback worse because increasing we see it as a requirement to simply justify the mark and explain what has being given um and so I think that limits the usefulness of feedback uhm I think however if done well, personally I knew would try and see increasingly combined with reflection and a reflective process I mean I use reflection significantly because I think that actually that can be one of the most powerful ways of real deep learning approach and. and an even in relation to assessment…self-critique and self assessment has the potential to be. probably more useful than anything of type of feedback but I think the undergraduates will struggle to understand that. I think we made some progress at postgraduate level um you know I think that post graduate students generally start to see the vale of both self-assessment and peer feedback as well but I think on undergraduate level there is still this focus on tutor feedback but. do. you know in all honesty. do I design my feedback were actually I focus on the behaviours and um you know the behaviours that a student would need to do differently in order to improve the mark at the skills that they would need to develop in order to improve the mark...I try um but even I think where I succeed I would hazard a guess that that's not the bit that students pay attention to I think that the um you know they will naturally…and I think to a certain degree a human reaction.um your we naturally will look for those external reasons or causes for a mark if it is below where we feel it should be. We will read the feedback and say "yes it's ,it's because um. it's because of. you know and flippantly it's always because the tutor doesn't like me um or equally it is always was because of that external thing… it was because I had to go to work was because ….you know it is all of these external reasons and very rarely they would actually read that comment like "you need to improve the quality of writing by developing your writing skills" .I think most students won't read that and think "Oh OK that is what I must do". That sort of two step process of. OK the feedback identifies that I need to improve my writing skills; I am going to take explicit actions to improve my writing skills and then apply that to the next assessment. I think that instead the best you get is that that student will go "Oh well that is alright because I practice my writing skills in this assessment so naturally they are going to improve". . And of course that does happen.um. but you know actually you would see much greater benefit by taking feedback and by saying: "Right what am I now going to do between this assessment and the next assessment in order to take that feedback and use it rather than just relying."…I think that students and staff rely on the natural improvement from repetition and practice. You know'...here is one end saying that...um...before you were going to get this mark...and it is OK because you are going to get better because you will do another essay. And you do another essay at level 6 and because you are now you have done it 3 times you have figured out how to write...regardless if that is if you have actually adopted a deep learning approach and have actually learned and benefited from the assessment and feedback. Or whether

that is by then you have practiced it so often that you know how to do it…know how to adopt a surface learning approach and get away with it um I suspect you would find examples of all that.

IK: Let's say you have a blank student...blank canvas… who hasn't got any in a strategy or anything how much impact do you think a lecturer can have on the students approach to learning and learning retention? So what type of lecturer would… or does a lecturer have impact?

Lecturer 1: Um I think they do and I can look my personal experience as a student consider those um lecturers that had the biggest impact on me and they are all… without a shadow of a doubt...or no not without a shadow of a doubt but they are all...they would be those lecturers that I felt you know more engaged I felt more inspired by them. they kind of lit that spark of wanting to learn and, and so I think it can have a very profound impact um you know verses those um you. that I did not feel connected with. the lecturers that I didn't feel were engaged themselves. They would often...almost adopt a surface approach to teaching uhm as appose to a deep approach the cliché of what's the mean. what is doing the rounds at the minute…"I come in and watch my lecturer read from the slides and then I go home and teach myself". Which actually I think is,.is doing the rounds is as a criticism of. of poor teaching… in many respects it is actually how universities are meant to operate in that the classes are only a small proportion but that's what most of our students don't comprehend is that you… you only need to look at the research in terms of the benefits of independent study over class contact. And to see that in dependent study has a greater learning return then those student students that spend time in class and obviously a combination of the two will have a greater… greater impact again...Uhm I think that it is possible um I think I'm not quite sure...I find it very difficult to identify. what it is that creates that connection and you know in six/seven years I still can't see how that works across the board uhm.

IK: Do you think an academic who has industry experience or an academic whose module is completely in line with their own research and uses case studies?

Lecturer 1: I don't think it comes down to one of those, I think it could be either or both. But I think I you were to look what is behind those things. I think that um legitimacy and authenticity would be two quite important concepts and I think that if a member of staff is perceived as being legitimate and whether that is they are legitimate because of their industry experience. You know I think that f you have a member of staff that has some really top notch you know involvement in industry...students will overlook weaknesses in teaching because of obliviously the legitimacy on the industry side. But equally I think it would work the other way in that the member of staff is being perceived as a very legitimate, inspiring teacher it would be overlooked in terms of even their subject knowledge from a uhm specialism side. So I think that it is the legitimacy that is important rather than the uhm those sort of an ingredients. And even just drawn from my own experience...back to my early career where I had no teaching experience...there was...I still

had...experiences with students that I connected with, even hopefully inspired in some way. Uhm you know in the same way that I do now...but perhaps what has changed is that now I am probably being perceived as being less legitimate with industry experience because I have now been out of industry for a number of years but you know hopefully a bit more legitimate from a teaching point of view because I have been around the block a little bit you know and I didn't start teaching last week. I think one of the real challenges if you were to map out a career is the you know and. and I feel that maybe I'm just coming out of that now I think that there is a bit of a lump where you know. we. as academics when you first start teaching you are acutely aware uhm of your lack of experience and lack of in-depth subject knowledge. And I think that to a certain extent you uhm in the first few years of teaching you uhm sort of try to offset that by bamboozling students with information. I think that we uhm...certainly early on in my career if I go back and look at my teaching materials from those years...I realise that I was incorporating a surface approach. Because of the classic academic scenario of you know "being found out". God knows. I can apply this is to the scenario where you -as we see recently- you're just thrown into a module which is not your subject area um you don't dare to encourage a deep approach because that might reveal your own inadequacy and your own lack of knowledge and so I think there is this propensity to want to. to. come across as credible and sometimes you play on the fact that know what if I am reading one week ahead in the text book...then the students – if they are reading the text book at all- um I don't want to be found out. And so I'm just gonna teach what is in the book or I am just going to read what is on the slides and not encourage them to critically engage with the material because I'm not sure what I would do if they did. And I can give you many examples especially early on in my career. Where a student asks a question and you are so insecure and the difference between then and now is that I am secure enough to say I don't know and not be ashamed of that actually be able to manage that hopefully in a very positive way but. But I mean it is frightening when you first start teaching.

IK: So do you think as lecturers…as academics. are we more educators or transferring research? Do you have to be a teacher?

Lecturer 1: I don't think you do but increasingly that is what we are becoming which is why we see some of the flaws in higher education being revealed now because historically we were not teachers and I would always quite passionately argue that we should not be teachers because then we just become an extension of the you know sort of secondary education system, you know further education to a certain extent. You know surely the fundamental purpose of a university is to create an independent learner. And I think that all the time that we conform to the teaching model...it reinforces this idea that "my job at the front of the room is to disseminate the knowledge that I have to you" . Uhm and um we are going to see that get worse in generally. Whereas actually

trying to create an environment where we teach students to take responsibility for their own actions um I think that you will see a greater level of engagement partly because I think that we going to there is increasing necessity to do it. We only need to look at generationally at the criticisms thrown often at the millennial but it might not necessarily that simple but the criticism that we seem to have a generation that of students that don't take responsibility that constantly need instant gratification or reward...and my view. which would be of an older generation… is that that is a problem and it is a problem that I see the education system can rectify by trying to encourage and to train perhaps rather than teach students to take responsibility for their actions. To critically engage with the world to be patient um and I think there is huge scope to do that but I don't I don't think we are and I think we going the other way instead because of again as a consequence of this sort of marketisation idea because it is saying that actually we need to keep students happy therefore we need to pander to the instant gratification, to the instant award to giving them high marks because they are our customers and that simply goes against actually developing some of the skills that we should be which develop that engagement in our attempts to keep students satisfied we are actually...it is with becoming a vicious circle because we are trying to satisfy so we are pandering to their um you know to their need or to their want...in fact to not be engaged because they want to do as little as possible or do and that in turn is creating a system where they don't feel engaged and they don't see the benefit, they don't see the reward of an education because they are. and no wonder they are getting pissed-off because actually they are going: " Why am I spending 9000 pounds. I'm not feeling the growth...I am not feeling the engagement. I'm not feeling the Passion that you're telling me I should have and you're not giving that to me" but they can't connect the dots and only we can just about connect the dots… you know I look around at the system um for one of a better word. and yet the system is creating this environment where students are feeling disengaged and they doing it for what they are seeing it as legitimate reasons to get student satisfaction but it seems to me that that will not increase student of satisfaction because it won't increase engagement. I think if you were to actually try and focus on this idea of deep learning you're actually really going back-to basics. deep learning… deep engagement… a passion for the subject. critical engagement with the world. you would see happiness and satisfaction and certainly perceived value for money...would it actually increase.

IK: So traditionally that's all University States did…think about 25-30 years ago… the lecturer would present an essay title at the beginning of a module or course-and a student would go off and research- of course now we have research on our phone. but they would go off and each week present their development of research… present it to the class the whole-class (so we talk about flipped classroom things like that) so this is what a student would do even then. and a lecturer or an academic would give feedback on that and at the end of the model an essay would-be written

in class. partly from memory because they have been working on it every week and so that kind of the facilitates deep learning naturally… because you work on it like we say. every week on the topic but you are doing your own research yourself. So that is traditional. Now of course we have these assessments where, as you say, we try to get students to get to the certain levels etc. so do you think we should go back-to that? Can we even go back to that?.

Lecturer 1: Well to a certain extent we probably can't and I think that example illustrates it quite well in why I don't think it is as simple as acquainting particular assessment types to either deep or surface learning if indeed you would adopt that kind of dichotomy erm because I absolutely think that that you can get deep learning in. in probably every assessment type so I think it's much more complex. I mean take exams there for example. in the last 5 years or more we seem –certainly in my area- a significant move away from exams towards more applied kind off less stressful assessment types um because criticism of exams are it encourages surface learning etc etc. And yet I now feel like I am now in a situation where if I want a student to take an assessment seriously I need to coordinate and exam because you know if they, they…I had some presentations a few weeks ago...where they were assessed presentations weighted at 30% of the overall mark and the attitude that the students came to the presentation with and this was an observation shared between me and. and the moderator were that the students approached it as if it was a piece at home work that they had been given the week before. They didn't feel like they took it seriously um and .and that gave me great cause for concern and it felt like that because they were like " Oh it is just a presentation it doesn't matter is a small weighting of the module" or whatever, I am sure there is a number of reasons behind it but whereas in the very same cohort students um I moderated what we did not call exam but it was in the in class test and they engaged far more in terms of in terms of the attendance was better, bearing in mind both were an assessment, but there was nearly a 100% attendance for the in-class test. I had a number of students who just didn't come in for the presentation or were asking for extensions or applying for mitigation, 1 student for example wanted an extension because they had a cold. Whereas that same student, 1 week later, made no question about attending when it came to the in-class test. So as an example, that in-class test was very much a surface learning approach with largely multiple-choice questions. In my view it was easy, but they took that more seriously, they revised. It certainly felt they were taking it more seriously and they were more engaged with that assessment than with the presentation. Yet on paper it should be the presentation that should get better learning. I am not convinced that it did and so I am don't think it is as simple as necessarily assessment types. Certain assessment types CAN be better, personally I am a fan of problem based learning tasks. I try to use problem based learning both in terms of module design but also assessment design…I use a lot of assessment design around role play scenario's. Where you are given an overall problem. And I find that that

tends to encourage a bit more engagement. However I also find that with assessments the trends tend to be that the more strategy is employed, it becomes about process design and doesn't necessarily influence learning. I don't think it's as simple as just the assessment.

IK: what about the learning environment, do you feel this has an impact?

Lecturer 1: I think that certainly has. It has a huge profound impact. And partly I know and I am very well aware that this is sort of a personal bugbear of mine..you know within this institution uhm in that even such simple things as furniture design and layout as I consistently complaint about. that we create our environments to align with a surface learning approach you know..the fact that every single class from is designed around. With..forward facing rows of chairs and tables looking at the front of the room um simply designed around the idea that the person at the front is um broadcasting knowledge to those in the room and I think there is huge amount of research that says that although that is the most and numerically efficient delivery system. it is not from an engagement and deep learning point of view. It is not the most effective system and yet every single 1 of our rooms seems to be designed around that system. So uhm which kind of suggest that the system itself prioritises numbers over learning. And then you only need to look at…you know..take one of the other biggest environmental impacts...on my view on learning.: class sizes. I have had seminars, not lecturers, seminars with up to 60 to 70 students. You cannot create a deep learning environment with that kind of number because you simple have..if you try and run it in a seminar type way –which I think it an effective format, you know when the numbers work- too many students can choose to not engage and hide and not be involved. You know you're always going to get that to a certain extent but if you have, bear in mind I think the national average is 16 people in a seminar, well here…the standard size is double that. And that doesn't take into account these you know extreme, high end versions where we have we have, 40, 50, 60, 70 students in what is meant to be the deep learning part. We already have lecturers and I think we need to be realistic, financially and resource constraints mean that we need to find economies of scale...so the lecture is not going to go away anytime soon…but the lecture… my experience of a successful lecture –there are probably better ways- but the historical success model to our type of subject- is a large scale lecturer with small group seminars. And we are not creating that environment and I think that that is one of, one of the biggest impacts because of what it does and I think it is not just the fact that the environment itself, but almost at a subconscious level we are creating the structure almost from a sociological point of view...we are creating the structures that give students the message…that you don't need to learn in a deep way. We are telling them "No you just need to sit there, shut up, uhm you know don't even take notes, just passively let this knowledge wash over you in the hope that by some magical power uhm you know you are going to suck it all in. And we do that in the very structures that we create. And then we are surprised that students don't

engage. We have given them that message in everything that we do. In the fact that we have these PowerPoint slides and say well this is the most important thing. because it is on a slide in a way that we do tend to passively broadcast information for various perfectly legitimate reasons in the way that we create the environment to the way we design our assessment, across the board we create this structure which sends the wrong message.

IK: I love your criticality! So how much then is influenced by the student themselves?

Lecturer 1: I mean that is the $64000 question. I mean everything and nothing um because you're and I stick my sociological hat back on. it comes down to the interplay between structure and agency. I would say it is everything and nothing because at the end of the day if the student chooses not to engage… it really doesn't match what else you do-and um you know if the student has made that choice that they are going to take a strategic approach, be a surface learner um yeah I think that's…you have lost the battle before it has even commenced. However the whole point in the structure that we create. should be to give this space to the student to make the right choice and " to engage more" and I think in a way that is the… the job of the university. is to create an environment where the student will want to engage because only the student can choose. you know...uh. and… and. if you look at you look examples and they're very extreme examples..where I have got a student for example who has made the decision in their own mind that uhm I am out to get them in some way which is ridiculously untrue because uhm they never quite seem to understand that it is not in my interest to be failing students and that this most of the time is the big myth in higher education that somehow we are looking to give harsh marks they don't seem to understand the institutional pressures were actually under...it's the opposite and that we are desperately trying to get students through. But the fact that the student has made that decision in her own mind means that that their engagement has, has just disappeared completely because they have chosen that actually for whatever reason. and I would argue it's the face approach. because they say because of some external factor it means that I'm not going to learn. I don't want to learn um and now when and unfortunately it is a very difficult situation because that becomes that's almost.. almost an impossible situation to salvage. I think once you get to that point and the individual has made that choice that actually no it doesn't really matter what you do to to try get it back because they have made that choice and, and so you would argue that the actual the problems weather they are repairable in that way within that environment, which is of course very difficult to do. you're always going to have situations like that because …because of the numbers. Understanding individual differences in people… with that comes the inevitable reality that not every student is going to be able to engage with me in the same way to engage in the environment in the same way to engage with the content in the same way and for some students it will be disengagement because it's just not right and… and. once upon a time institutions would try and um mitigate that through

their application process by actually they weren't looking at just about whether a student could succeed…they were looking at..you know back when it was very competitive...numbers were capped. They were looking at which of our applicants are going to fit best in the environment that we create. Of course that's all gone out of the window with the marketed approach, it is that now it's just well."Will the student be able to pay their fees" and perhaps "will they not fail completely". This now seems to be the only benchmark so...we have stopped actually saying: "For which student is the university the right environment?". Because it is a simple reality that for some individuals they are never going to feel able to get engage um because, because actually they would learn more in and applied environment...they would probably learn more by just being in a job and doing because they are more you know kind of active learners and for that individual, you know what, they would probably benefit far more from taking a job and taking a short course in reflective practice...and then going out in the world of work and then being an independent reflective learner. They would benefit a lot more but of course wouldn't get a degree certificate at the end of it. With the UCAS system we are only looking at the points, we are not looking at the person, the application. And it is so easy, the irony...if you look at the HE history in the UK, is that we are blessed to have, even within the one system, to have many different versions of university. And there is no one, we simply rely on individual aptitude…the sorting system…to say well you guys have done BTECS. you guys didn't get very good A level results and therefore you guys are going to be better in this sort of uhm teaching focussed institution which has at least more practical subjects. And you guys over here...you have done very well in your A levels and you have been to a more prestigious institution and therefore you are going to be better off at Oxford and Cambridge. It is a very crude way of categorising students. Um instead, and I throw a lot of criticism at the secondary school system. because maybe they should be doing more to assess...the environment what would be best for those individual students actually and I do think they try. I think it is a very difficult task. They should be saying. "What environment is gonna work best for you?" Or " This is the kind of institution you should look at". And whether is a you know. research intensive Russell group University or whether that is a teaching focused university kind of.post '92. whether that is an FE college. whether that is an apprenticeship...we are blessed to have a huge range of options that we can direct individuals to but that's not how we use the system. we have created this, this just weird system.

IK: So if you could have an influence, what do you think the institution should do to encourage deeper learning?

Lecturer 1: um I mean there are so so so many things that COULD be done erm but right from the very top in terms of. of… that 1st point. working backwards … um I think that there are things the institution can-do at the application and admission stage in terms of selecting the most appropriate

individuals and I don't think that's going to happen because the inevitable consequence of that would limit numbers and that is not the way the prevailing winds are blowing at the exec level and but I think below that there huge things that institutions 's can-do to create the right environment… simple things like uh you creating the best environment the best learning environment according to the pedagogy not space efficiency. so having a more… an environment that encouragers discussion and dialogue rather than encouraging passive broadcasting of knowledge. And you could implement that tomorrow… It is not a difficult thing to do. tomorrow you could immediately implement a cap on class sizes. it's um which would have an immediate and radical impact on the quality of learning because actually I mean- not that it would ever go to this extreme- But if I was the vice chancellor tomorrow I would say " a max seminar size of 15" because if you wanted to see a radical increase in engagement and learning and up your NSS survey. You would see the return on the investment through the NSS. And there are many other things that I would want to do as well. Capping groups sizes is also an increase in staff resource. Combined with that you want to make sure that your staff resource is as good as it can be. To make sure that those people taking those classes of 15 students, know how to do it. With a small class, students wouldn't have the space to hide. You would perhaps see a short term negative impact because learning is uncomfortable. We have to acknowledge that this whole idea of student satisfaction that we are the driving force behind, quality is ridiculous. Because if you are truly learning, as an individual it is an incredible uncomfortable experience. And so to ask a student, who is going through this transformative but uncomfortable experience, to say : "Are you happy?" Well of course they are not going to be happy. So actually if you were implementing it, you wouldn't immediately be implementing it at level 6. because you are just going to "bum off" the students just as they are filling in all the surveys and stuff. You start at level 4 and then track it through. I guarantee you by the time those level 4's…because they have had a much better experience from the beginning…by the time they get to the end… you will have begun to see the growth. At present when our level 6 answer the survey… we ask them about satisfaction. Satisfaction does not equal engagement. Satisfaction does not equal learning. New terms now also include "Value for Money". And I think those student who had experiences smaller group sizes from level 4 would feel they had received value for money. But of course it needs to be engaging…you could have 15 students and just talk at them for hours…so with it we would need to have plans on how to deliver material.

IK: Thank you so much for all this, very valuable. Would you like to add anything else?

Lecturer 1: You are welcome, I think I have said enough?

Appendix F: Participant Consent Form

Student information sheet for interview.

Research Project:
A student perspective on the relation between assessment methods and retention of learning in higher education.

Project Team Members: Ingrid Kanuga

What is the study?
The study is part of my research. I am studying for the Doctoral in Education at the University of Reading. This study explores whether the assessment strategies used at H.E provide for a deep learning approach and if these can be linked to long term knowledge retention.
The study is composed of 1 semi-structured interview which will take a maximum of 1 hour to complete. Within this interview I want to talk to you about the assessment experiences you have had so far during your studies and if these influence your learning approach. I also want to discuss if you feel that the assessment strategies have an influence on the knowledge you retain. Finally I want to understand which other factors might influence your learning approach and knowledge retention.

Why have I been chosen to take part?
You have been invited to take part in the project because you have experience in studying and being assessed within Higher Education.

Do I have to take part?
It is entirely up to you whether you participate. You may also withdraw your consent to participation at any time during the project, without any repercussions to you, by contacting myself, the Project Researcher, Ingrid Kanuga, email: [redacted]

What will happen if I take part?
Partaking is completely voluntarily. Interviews will be audio-recorded and transcribed. Interviews will be semi-structured and are expected to last between 30-60minutes. The information you give will remain confidential and will only be seen by myself, the project researcher. You will not be identifiable in any published report resulting from the study. The data will not have any negative impact on your student records or the researchers or Universities views of you as a student.

What are the risks and benefits of taking part?
Participants in similar studies have found it interesting to take part. I anticipate that the findings of the study will be useful for university lecturers in planning how they can create learning teaching and assessment strategies which will lead to long term knowledge retention.

What will happen to the data?

Any data collected will be held in strict confidence and no real names will be used in this study or in any subsequent publications. The records of this study will be kept private. No identifiers linking the student or the school to the study will be included in any sort of report that might be published. Participants will be assigned a number and will be referred to by that number in all records. Research records will be stored securely in a locked filing cabinet and on a password-protected computer and only I, the researcher, will have access to the records. The data will be destroyed securely once the findings of the study are written up, after five years. The results of the study may be presented at national and international conferences, and in written reports and articles.

What happens if I change my mind?

You can change your mind at any time without any repercussions. During the research, you can stop completing the activities at any time. If you change your mind after data collection has ended, I will discard your data.

Who has reviewed the study?

This project has been reviewed following the procedures of the University of Reading Research Ethics Committee and has been given a favourable ethical opinion for conduct. The University has the appropriate insurances in place. Full details are available on request.

What happens if something goes wrong?

In the unlikely case of concern or complaint, you can contact Dr Carol Fuller University of Reading; email: c.l.fuller @reading.ac.uk.

Where can I get more information?

If you would like to get more information, please contact myself via email on:[redacted]

I do hope that you will agree to your participation in the study. If you do, please complete the attached consent form and return it, sealed, in the envelope provided, to myself.

Thank you for your time.

Regards

Ingrid Kanuga

Research Project:

A student perspective on the relation between assessment methods and retention of learning in higher education.

Consent Form

I have read the Information Sheet about the project and received a copy of it.

I understand what the purpose of the project is and what is required of me. All my questions have been answered.

Name of student : _____

Name of University: University of West London

Please tick as appropriate:

I consent to partaking in an interview ☐

I consent to the interview being recorded ☐

Signed:____ _____

Date :____ _____

Lecturer information sheet for focus group.

Research Project:

A student perspective on the relation between assessment methods and retention of learning in higher education.

Project Team Members: Ingrid Kanuga

What is the study?

The study is part of my research. I am studying for the Doctoral in Education at the University of Reading. This study explores whether the assessment strategies used at H.E provide for a deep learning approach and if these can be linked to long term knowledge retention.

The study is composed of 1 focus group with 3 lecturers. The focus group discussion is expected to take 60 minutes. Within this focus group I want to talk to you about the assessment strategies you have implemented in your modules and to which extend you have considered the learning approaches of your students. I also want to discuss knowledge retention and to what extend you think assessments might influence this. Finally I want to understand which other factors might influence students learning approach and knowledge retention.

Why have I been chosen to take part?

You have been invited to take part in the project because you have experience in designing assessment strategies in higher education.

Do I have to take part?

It is entirely up to you whether you participate. You may also withdraw your consent to participation at any time during the project, without any repercussions to you, by contacting myself, the Project Researcher, Ingrid Kanuga, email: [redacted]

What will happen if I take part?

The focus group will be audio-recorded and transcribed. The information you give will remain confidential and will only be seen by myself, the project researcher. You will not be identifiable in any published report resulting from the study. Information about individuals will not be shared within the University.

What are the risks and benefits of taking part?

Participants in similar studies have found it interesting to take part. I anticipate that the findings of the study will be useful for university lecturers in planning how they can create learning teaching and assessment strategies which will lead to long term knowledge retention.

What will happen to the data?

Any data collected will be held in strict confidence and no real names will be used in this study or in any subsequent publications. The records of this study will be kept private. No identifiers linking the student or the school to the study will be included in any sort of report that might be published. Participants will be assigned a number and will be referred to by that number in all records. Research records will be stored securely in a locked filing cabinet and on a password-protected computer and only I, the researcher, will have access to the records. The data will be destroyed

securely once the findings of the study are written up, after five years. The results of the study may be presented at national and international conferences, and in written reports and articles.

What happens if I change my mind?

You can change your mind at any time without any repercussions. During the research, you can stop completing the activities at any time. If you change your mind after data collection has ended I will discard your data.

Who has reviewed the study?

This project has been reviewed following the procedures of the University of Reading Research Ethics Committee and has been given a favourable ethical opinion for conduct. The University has the appropriate insurances in place. Full details are available on request.

What happens if something goes wrong?

In the unlikely case of concern or complaint, you can contact Dr Carol Fuller University of Reading; email: c.l.fuller @reading.ac.uk.

Where can I get more information?

If you would like to get more information, please contact myself via email on: [redacted]

I do hope that you will agree to your participation in the study. If you do, please complete the attached consent form and return it, sealed, in the envelope provided, to myself.

Thank you for your time.

Ingrid Kanuga

Research Project:

A student perspective on the relation between assessment methods and retention of learning in higher education.

Consent Form

I have read the Information Sheet about the project and received a copy of it.

I understand what the purpose of the project is and what is required of me. All my questions have been answered.

Name of student : _____

Name of University: University of West London

Please tick as appropriate:

I consent to partaking in an interview ☐

I consent to the interview being recorded ☐

Signed:____ _____

Date :____ _____

Appendix G: Head of School Consent Form

Dean of University information sheet

Dear Head of faculty, James Edmunds

I am writing to invite your university to take part in a research study.

Research Project:
A student perspective on the relation between assessment methods and retention of learning in higher education.

Project team members: Ingrid Kanuga

What is the study?
The study is part of my, Ingrid Kanuga's research. I am studying for the Doctoral in Education at the University of Reading. This study explores whether the assessment strategies used at H.E provide for a deep learning approach and if these can be linked to retention of learning.

Why has this University been chosen to take part?
This university was chosen through convenience as it is where I work. The research findings will benefit this university in particular as the research findings will enhance the student experience.

Does the university have to take part?
It is entirely up to you whether you give permission for the university to participate. You may also withdraw your consent to participation at any time during the project, without any repercussions to you, or the university by contacting me through the following: Ingrid.Kanuga@uwl.ac.uk

What will happen if the university takes part?
With your agreement, participation would involve the student completing an 'assessment experience questionnaire' (AEQ) in class, at the start of the lecture. The questionnaire is designed to investigate which learning approaches students prefer to take when completing assessments: Surface or Deep approach. Briefing the students and completing the questionnaire is expecting to take up to 30minutes.

The students will then be introduced to theories on surface and deep learning for 30 minutes. The students will then be invited to partake in an interview to explore their learning strategy in more depth. Interviews will take place outside of class time and are expected to last 30 to 60minutes each. I am looking to interview 3 to 5 students. The students will also be given an information sheet and will be asked to consent to take part. They will have the opportunity to

withdraw at any point, if they wish to.

Lecturers will be invited to partake in a focus group to discuss their awareness of deep and surface learning approaches and the possible link to knowledge retention. I will ask 3 lecturers to take part and the focus group will last 60 minutes. The lecturers will also be given an information sheet and will be asked to consent to take part. They will have the opportunity to withdraw at any point, if they wish to.

The interviews and focus group will each be audio-recorded and transcribed. The data obtained remain confidential and will only be seen by myself, the project researcher. It will not be identifiable in any published report resulting from the study. Information about individuals will not be shared within the University. Neither the students, lecturers nor the university will be identifiable in any published report resulting from the study.

What are the risks and benefits of taking part?

I anticipate that the findings of the study will be useful for the university in planning and delivering assignments as well as better preparing students for their learning within the department of Hospitality and Tourism.

What will happen to the data?

Any data collected will be held in strict confidence and pseudo names will be used in this study. The records of this study will be kept private and stored in a safe place which is security protected, in a locked cabinet or password protected computer. Only I, the researcher, will have access to these records. No identifiers linking the student, lecturers or the school to the study will be included in any sort of report that might be published. The data will be destroyed securely once the findings of the study are written up, after five years. The results of the study may be presented at national and international conferences, and in written reports and articles.

Who has reviewed the study?

This project has been reviewed following the procedures of the University of Reading Research Ethics Committee and has been given a favourable ethical opinion for conduct. The University of Reading has the appropriate insurances in place. Full details are available on request.

What happens if I change my mind?

You can change your mind at any time without any repercussions. If you change your mind after data collection has ended, I will discard the school's data.

What happens if something goes wrong?

In the unlikely case of concern or complaint, you can contact Dr Carol Fuller at University of Reading by phone on [redacted]

Where can I get more information?

If you would like more information, please contact myself, Ingrid Kanuga, on [redacted]

What do I do next?

I do hope that you will agree to your participation in the study. If you do, please complete the attached consent form and return it, sealed, in the pre-paid envelope provided, to myself.

Thank you for your time.

Yours sincerely,

Ingrid Kanuga

The London Geller College of Hospitality and Tourism Consent Form

I have read the Information Sheet about the project and received a copy of it.

I understand what the purpose of the project is and what is required of me. All my questions have been answered.

Name: _____

Name of University: _____

Please tick as appropriate:

I consent to the involvement of my university in the project as outlined in the Information Sheet ☐

Signed:_____

Date: _____

Appendix H. Coding Calculations

Assessment Type	75	9.457755
Learning Approaches	97	12.23203
Feedback	118	14.8802
Lecturer Influence	149	18.78941
Learning environment	49	6.179067
Learning from Peers	64	8.070618
Knowledge Retention	85	10.71879
Learning Through Assessment	105	13.24086
Other Priorities.	51	6.431274
	793	100

Table 13: Themes in Frequency Occurrence, all participants.

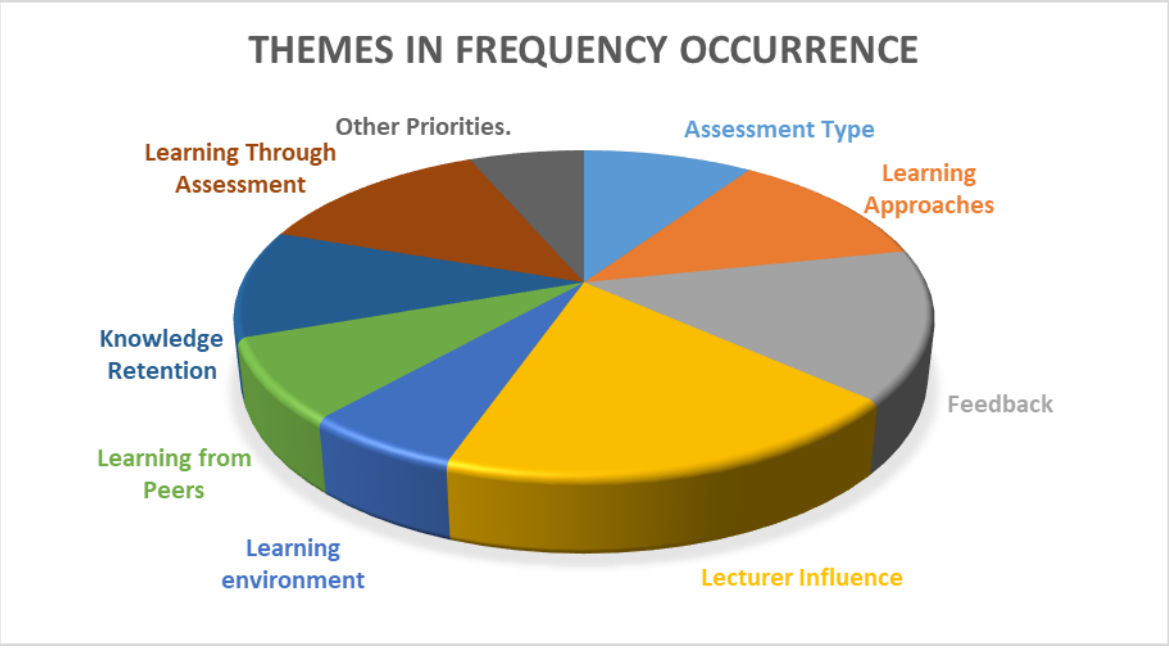
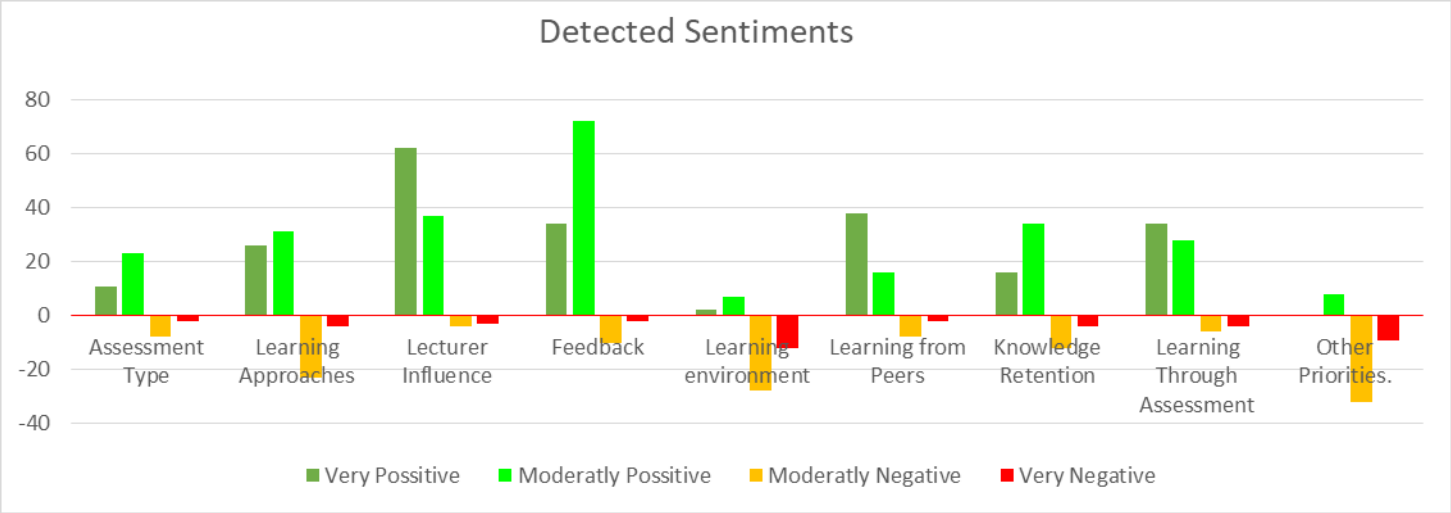


Chart 1: Themes in Frequency Occurrence, all participants.

Theme	Very Possitive	Moderatly Possitive	Moderatly Negative	Very Negative	No sentiment detected
Assessment Type	11	23	-8	-2	31
Learning Approaches	26	31	-23	-4	13
Lecturer Influence	62	37	-4	-3	43
Feedback	34	72	-10	-2	0
Learning environment	2	7	-28	-12	0
Learning from Peers	38	16	-8	-2	0
Knowledge Retention	16	34	-12	-4	15
Learning Through Assessment	34	28	-6	-4	33
Other Priorities.	0	8	-32	-9	2

Table 14: Occurrence of all sentiments, all participants.



Graph 1: Detected Sentiments, all participants.

Assessment Type	23	13.14286
Learning Approaches	35	20
Feedback	15	8.571429
Lecturer Influence	15	8.571429
Learning environment	20	11.42857
Learning from Peers	2	1.142857
Knowledge Retention	18	10.28571
Learning Through Assessment	32	18.28571
Other Priorities.	15	8.571429
	175	100

Table 15: Lecturer themes.

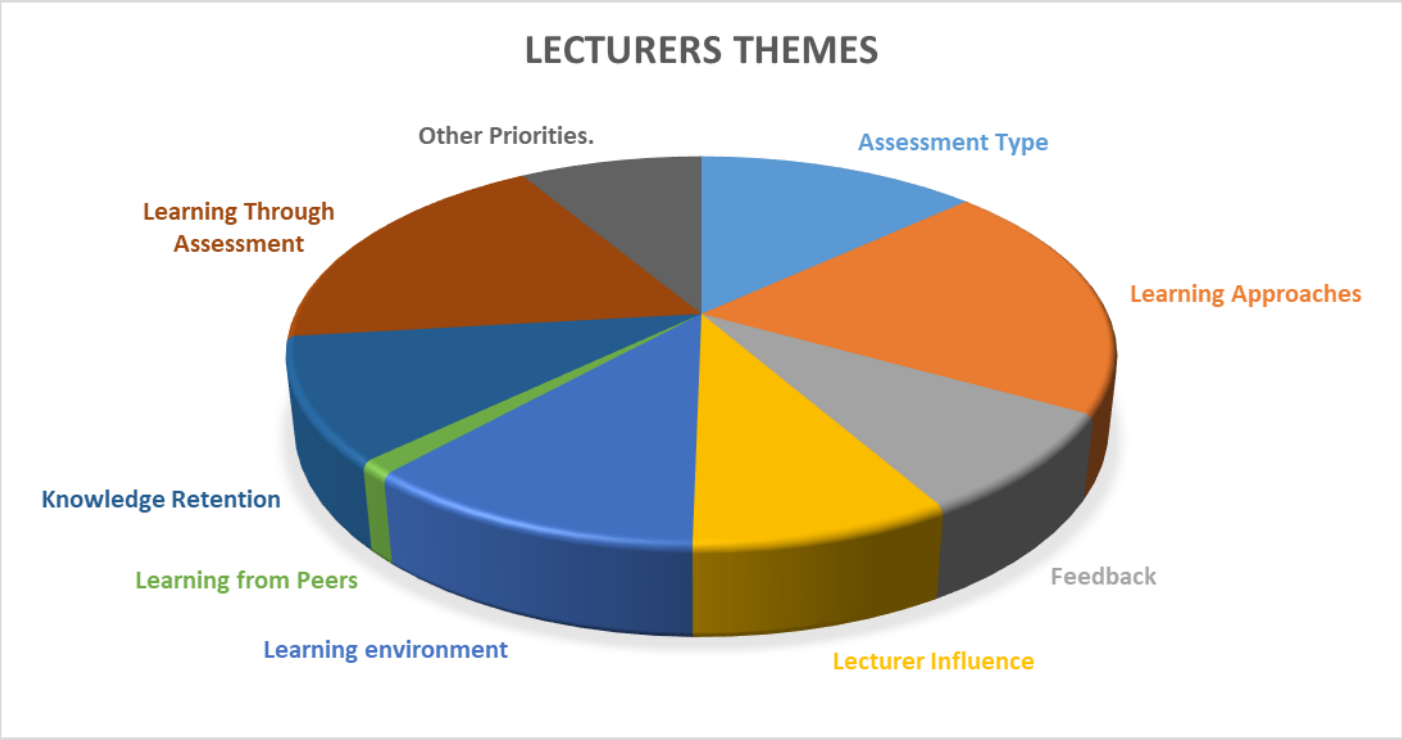


Chart 2: Themes in frequency occurrence, lecturers.

Assessment Type	10	7.936508
Learning Approaches	14	11.11111
Feedback	30	23.80952
Lecturer Influence	25	19.84127
Learning environment	1	0.793651
Learning from Peers	12	9.52381
Knowledge Retention	18	14.28571
Learning Through Assessment	16	12.69841
Other Priorities.	2	1.587302
	128	101.5873

Table 15: Marta's themes.

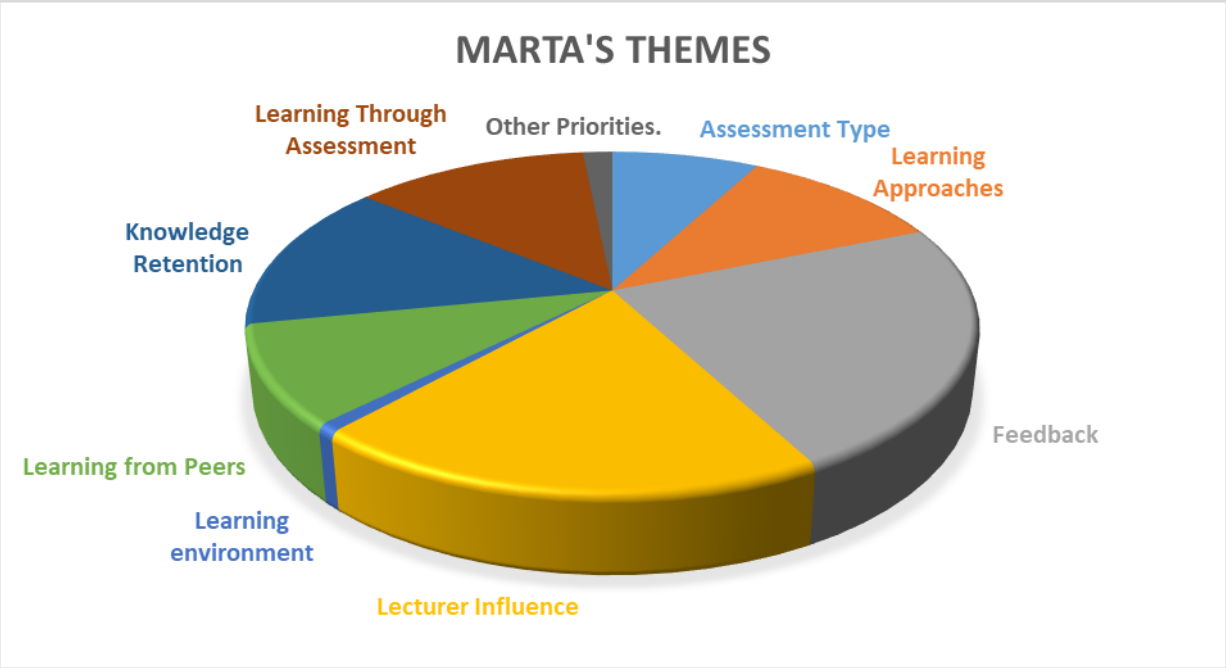


Chart 3: Frequency occurrence, Marta's themes.

Assessment Type	6	4.724409
Learning Approaches	6	4.724409
Feedback	25	19.68504
Lecturer Influence	36	28.34646
Learning environment	8	6.299213
Learning from Peers	18	14.17323
Knowledge Retention	7	5.511811
Learning Through Assessment	7	5.511811
Other Priorities.	4	3.149606
	117	92.12598

Table 16: Rayan's themes.

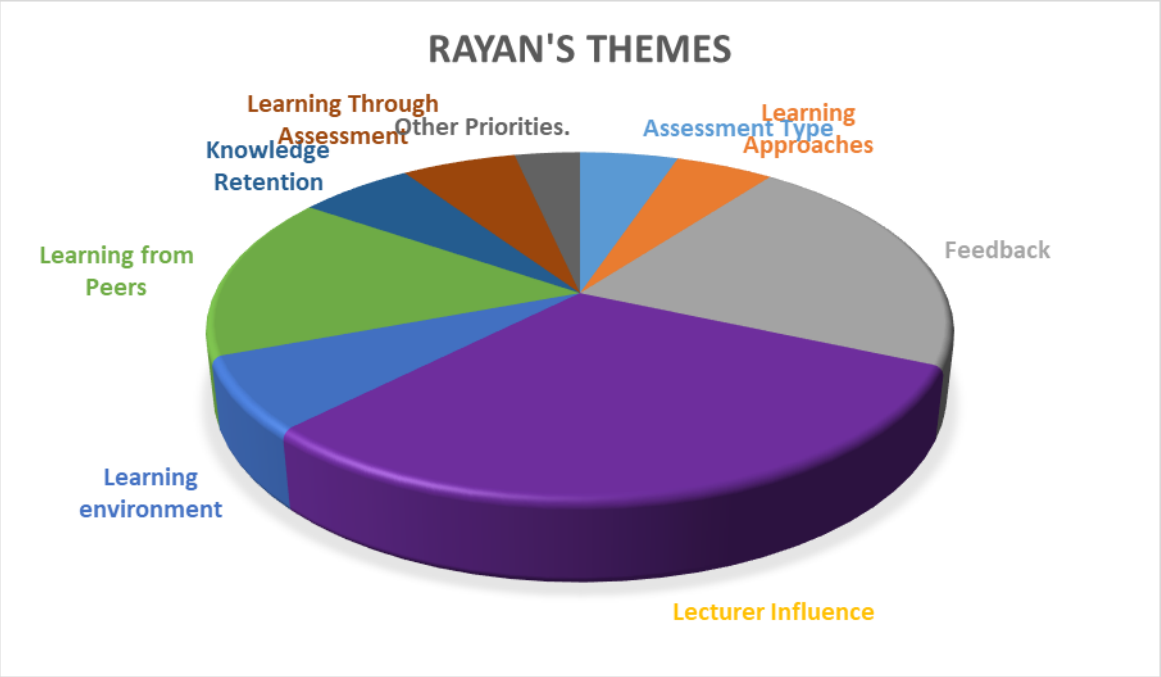


Chart 4: Frequency occurrence, Rayan's themes.

Assessment Type	15	13.39285714
Learning Approaches	6	5.357142857
Feedback	15	13.39285714
Lecturer Influence	30	26.78571429
Learning environment	6	5.357142857
Learning from Peers	9	8.035714286
Knowledge Retention	12	10.71428571
Learning Through Assessment	15	13.39285714
Other Priorities.	4	3.571428571
	112	100

Table 17: Navneet and Kevin's themes.

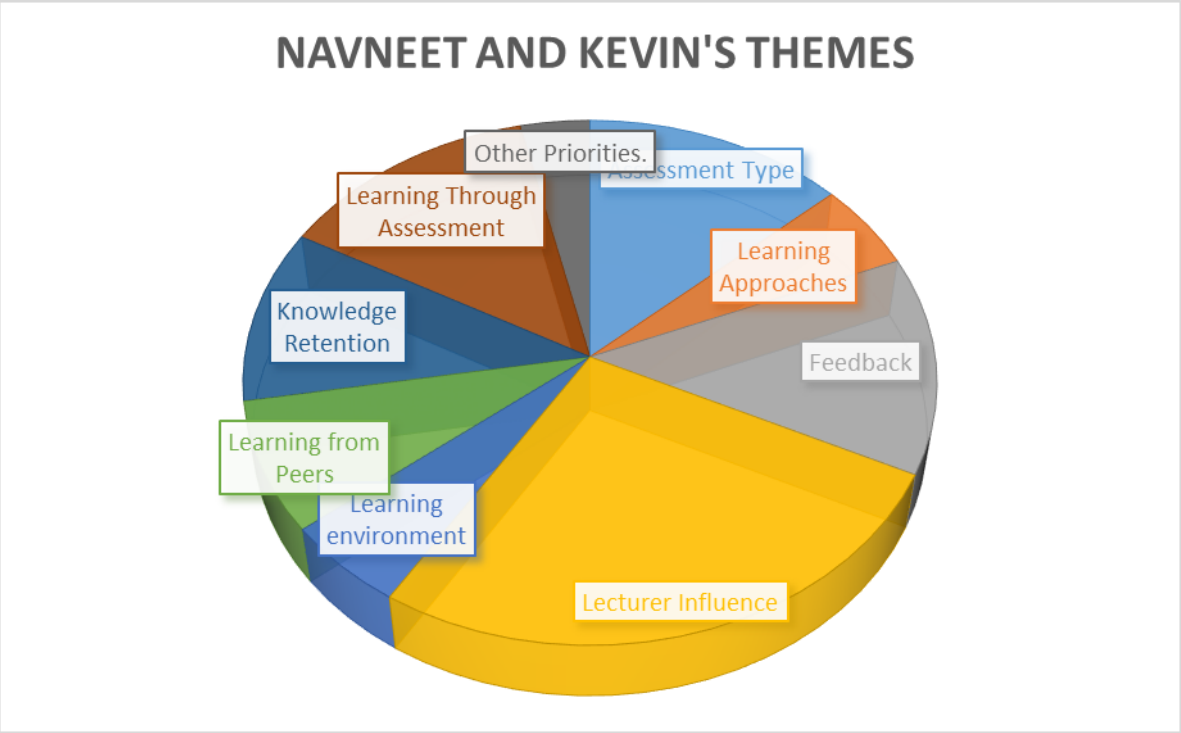


Chart 5: Frequency occurrence, Navneet and Kevins themes.

Assessment Type	14	9.090909
Learning Approaches	24	15.58442
Feedback	18	11.68831
Lecturer Influence	28	18.18182
Learning environment	9	5.844156
Learning from Peers	15	9.74026
Knowledge Retention	18	11.68831
Learning Through Assessment	20	12.98701
Other Priorities.	8	5.194805
	154	100

Table 17: Alistair's themes.

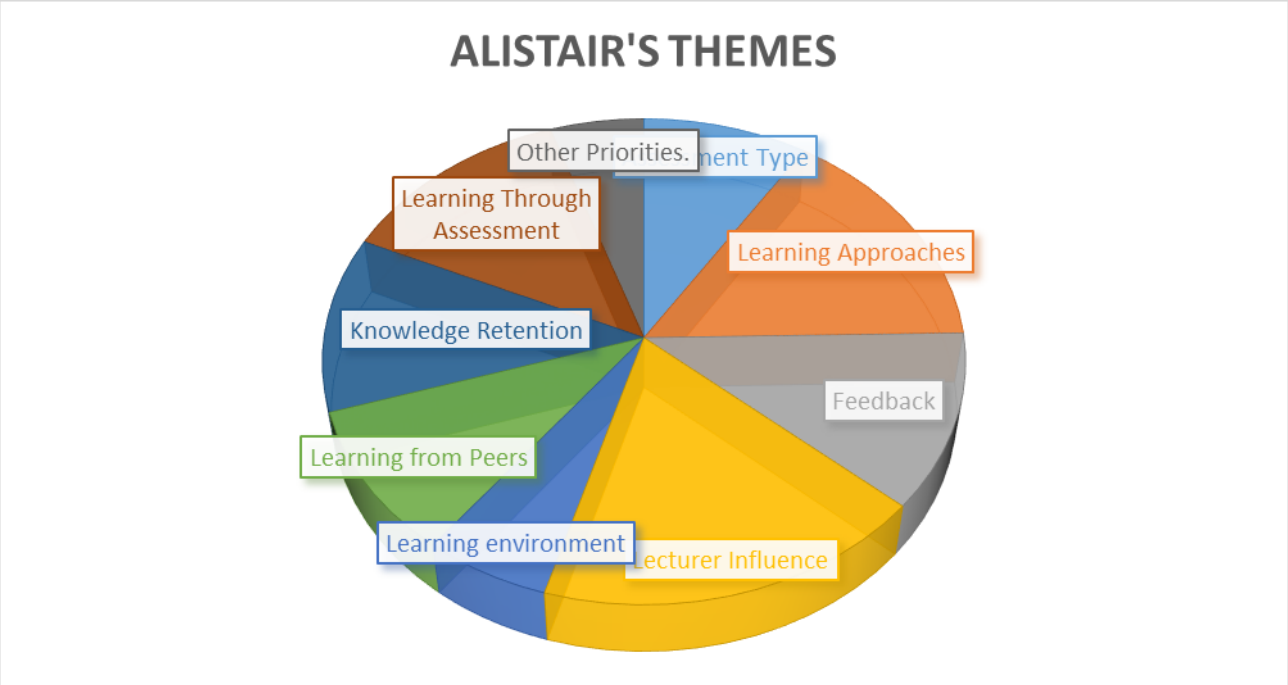


Chart 6: Frequency occurrence, Alistair's themes.

Assessment Type	7	6.542056
Learning Approaches	12	11.21495
Feedback	15	14.01869
Lecturer Influence	15	14.01869
Learning environment	5	4.672897
Learning from Peers	8	7.476636
Knowledge Retention	12	11.21495
Learning Through Assessment	15	14.01869
Other Priorities.	18	16.82243
	107	100

Table 18: Lara and Justine's themes.

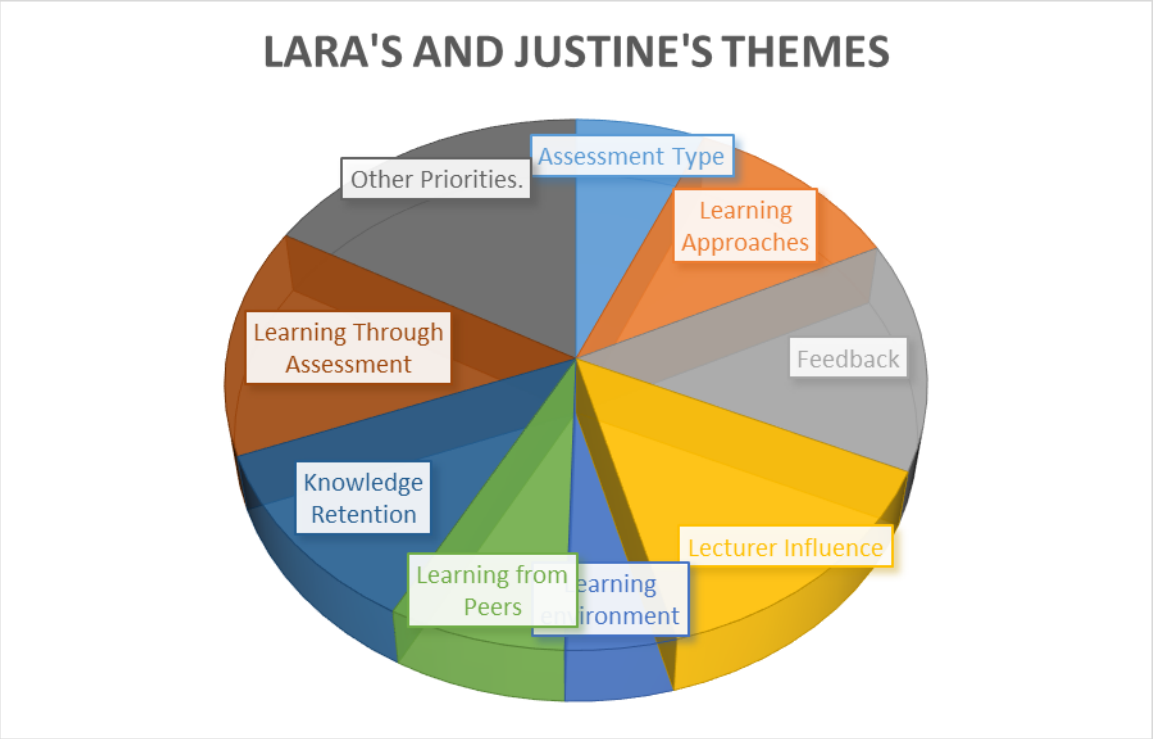


Chart 7: Frequency occurrence, Alistairs themes.

Appendix I: First draft of Blended Learning Phased Assessment Framework.