

# **Instructors' Decisions to Continue to Use Blended Learning in their Courses in Higher Education Institutions: A Mixed Methods Study in the United Arab Emirates**

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## **Dedication**

I dedicate this PhD thesis to my parents, my mother, Mrs. Amal Bonna and my father, Prof. Dr. Eng. Abdel-Mohsen Onsy Mohamed, for their constant motivation and support throughout my doctoral studies. Without their unlimited love, care, and encouragement, I would have never been able to accomplish everything that I have today, and for that I will always be thankful to them from the bottom of my heart.

I also dedicate this PhD thesis to my husband Dr. Adham Fayad, my sister Basant Mohamed, and my son Karam Fayad, for their endless love, motivation, and patience.

## **Abstract**

Blended learning (BL) has been recently adopted within Higher Education Institutions (HEIs) in the United Arab Emirates (UAE), in hopes of providing a better learning environment and reaping the benefits of BL. However, there is insufficient research which presents the critical factors which impact the effectiveness of BL courses within varying cultural contexts. There is also little research which presents instructors' BL continuity decisions and portrays which critical factors impact those decisions.

Thus, the aim of this study is to gain an in-depth comprehension of instructors' decisions to continue using BL as a teaching modality in HEIs in the UAE and identify the principal critical factors which they perceive to impact their continuity decisions. To accomplish such, a mixed method, qualitative dominant, sequential research design had been employed to collect the needed data. A questionnaire had first been responded by 319 instructors and a follow-up interview was conducted with 21 instructors.

The findings of this research study show that a majority of instructors in the UAE intend to continue to teach their BL courses, yet, several conditions, for example adopting different blend types and changing the overall course structure, would need to be addressed by senior managers to further improve their willingness to continually teach BL courses in the future. The findings also present the most perceived influential critical factors which impact instructors' continuity decisions, such as Instructor Control and Service Quality, and a further cultural factor, Learner Engagement, was identified, which is rooted from the nature of the students who study at HEIs in the UAE.

This research study provides several academic contributions to BL literature predominantly surrounding continuous intention to use (CIU) research and critical factors of BL. This study's contributions include identifying cultural challenges, focusing on decision making as a whole, uncovering the reasons behind instructors' decisions, identifying continuity critical factors and showcasing its relationship on instructors' CIU decisions, discovering a cultural continuity critical factor, and presenting the components needed to achieve BL continuity within HEIs in the UAE.

# Table of Contents

Dedication .....	i
Abstract .....	ii
List of Figures .....	viii
List of Tables .....	x
Acknowledgements .....	xi
Declaration .....	xii
Chapter 1: Introduction .....	1
1.1 Blended Learning in the United Arab Emirates .....	2
1.2 Defining Blended Learning .....	3
1.3 Blended Learning's Critical Factors .....	6
1.4 Continuity of Blended Learning .....	9
1.5 Rationale of the Study .....	11
1.6 Purpose of the Study .....	14
1.7 Research Questions .....	15
1.8 Research Methodology Overview .....	15
1.9 About the Researcher .....	16
1.10 Structure of The Thesis .....	17
Chapter 2: Context of the Study .....	19
2.1 Background of the UAE .....	19
2.2 UAE's Higher Education .....	20
2.2.1 National Context of UAE's Higher Education .....	20
2.2.2 Higher Education Institutions in the UAE .....	26
2.3 Learners' Characteristics .....	30
2.4 Blended Learning in the UAE .....	32
2.5 Effect of Covid-19 on UAE's Higher Education Institutions .....	36
2.6 Chapter Summary .....	40
Chapter 3: Literature Review .....	42
3.1 Conducting the Literature Review .....	42
3.2 Benefits and Limitations of Blended Learning .....	47

3.3 Critical Factors of Blended Learning .....	55
3.4 Continuous Intention to Use.....	73
3.5 Blended Learning Continuity .....	79
3.6 Chapter Summary.....	83
Chapter 4: Research Methodology.....	87
4.1 Introduction .....	87
4.2 Research Philosophy .....	87
4.3 Research Approach.....	88
4.4 Sample Selection & Participants .....	93
4.5 Data Collection Method .....	94
4.5.1 Quantitative Data Collection .....	94
4.5.2 Qualitative Collection Method .....	101
4.6 Data Analysis Method .....	105
4.6.1 Quantitative Analysis .....	105
4.6.2 Qualitative Analysis .....	106
4.7 Chapter Summary.....	110
Chapter 5: Quantitative Data Analysis.....	112
5.1 Data Analysis .....	112
5.2 Instructor Demographics .....	113
5.2.1 Gender.....	113
5.2.2 Professional Titles .....	114
5.2.3 Teaching Department.....	114
5.2.4 Previous Experience .....	115
5.3 Critical Factors .....	116
5.3.1 Instructor Characteristics .....	117
5.3.2 Learner Characteristics .....	122
5.3.3 Course Characteristics .....	127
5.3.4 LMS Characteristics .....	129
5.3.5 Organizational Characteristics.....	133
5.3.6 Ranking of Critical Factors.....	136
5.4 Effectiveness Measures .....	137
5.4.1 Perceived Usefulness .....	137

5.4.2 Perceived Ease of Use .....	138
5.4.3 System Use .....	139
5.4.4 Satisfaction .....	140
5.5 BL Continuity.....	142
5.5.1 CIU BL .....	142
5.5.2 BL Course Type Comparison .....	144
5.5.3 Previous DL Experience Comparison .....	145
5.6 Chapter Summary.....	146
Chapter 6: Qualitative Data Analysis: Instructors' Experiences .....	150
6.1 Qualitative Data Analysis Process .....	150
6.2 General Attitudes & Opinions.....	152
6.2.1 Impressions .....	153
6.2.2 Teaching Experience .....	158
6.2.3 Job Performance .....	161
6.2.4 Summary.....	164
6.3 Benefits of BL Courses .....	165
6.3.1 Flexibility.....	166
6.3.2 Enhanced Course Quality .....	168
6.3.3 Improved Job-Related Skills.....	170
6.3.4 Summary.....	171
6.4 Challenges of BL Courses.....	171
6.4.1 Increased Workload.....	172
6.4.2 Time Management Difficulties.....	176
6.4.3 Cultural/ Not Using Video Features .....	178
6.4.4 Lack of Student Engagement.....	180
6.4.5 Lack of Student Self-Regulatory Skills.....	183
6.4.6 Lack of Student Feedback .....	184
6.4.7 Difficulties Conducting Online Assessments .....	185
6.4.8 Lack of IT Support & Training.....	187
6.4.9 Summary.....	188
6.5 Enhancements of BL Courses .....	189
6.5.1 Improve Course Material.....	190

6.5.2 Reduce Class Size.....	192
6.5.3 Course Re-Design.....	193
6.5.4 Technological Enhancement.....	194
6.5.5 Training.....	197
6.5.6 Online Student Assessment .....	198
6.6 Chapter Summary.....	200
Chapter 7: Qualitative Analysis: CIU Decisions & Continuity Critical Factors ...	203
7.1 Continuity of BL .....	204
7.1.1 CIU Decisions.....	204
7.1.2 Future of BL .....	215
7.1.3 Summary.....	220
7.2 Continuity Critical Factors .....	220
7.2.1 Technological Factors.....	221
7.2.2 Organizational Factors.....	224
7.2.3 Student Factors .....	227
7.2.4 Instructor Factors .....	233
7.2.5 Course Factors .....	236
7.3 Chapter Summary.....	239
Chapter 8: Discussion .....	242
8.1 Instructors' BL Experiences.....	242
8.1.1 Instructors' General Attitudes & Opinions.....	242
8.1.2 Benefits of BL Courses.....	251
8.1.3 Challenges of BL Courses .....	257
8.1.4 Summary of Instructors' Experiences .....	268
8.2 Instructors' BL Continuity Decisions.....	269
8.3 Principal Continuity Critical Factors.....	281
8.4 Chapter Summary.....	292
Chapter 9: Conclusion.....	294
9.1 Summary of Key Research Findings.....	294
9.2 Contributions .....	303
9.3 Limitations of the Study .....	308
9.4 Recommendations .....	310
9.5 Future Research.....	315



Appendix A .....	317
Appendix B .....	323
Appendix C .....	324
Appendix D .....	325
Appendix E .....	326
Appendix F.....	328
Appendix G .....	330
Appendix H .....	331
Appendix I.....	332
List of Abbreviations .....	339
References .....	340

## List of Figures

Figure 1.1 DL, BL, and E-learning comparisons.....	5
Figure 2.1 Map of the United Arab Emirates (GraphicMaps.com) .....	20
Figure 3.1 BL's 5 Dimensions; Associated Critical Factors; and Effectiveness Measures which impact the CIU decision.....	78
Figure 3.2 Stability and Continuity of a Learning Environment (Stepanyan et al. 2013) .....	80
Figure 4.1 Research Outline.....	89
Figure 4.2 Thematic Map.....	109
Figure 5.1 Gender of Participants .....	113
Figure 5.2 Professional Title of Respondents .....	114
Figure 5.3 Teaching Department .....	115
Figure 5.4 Previous Experience .....	116
Figure 5.5 Instructor Teaching & Learning Style .....	118
Figure 5.6 Instructor Attitude.....	119
Figure 5.7 Instructor Control .....	120
Figure 5.8 Instructor Responsiveness .....	121
Figure 5.9 Academic Workload & Time Allocation.....	122
Figure 5.10 Learner Computer Anxiety .....	123
Figure 5.11 Learner Technological Experience.....	124
Figure 5.12 Learner Self-Efficacy .....	125
Figure 5.13 Learner Control.....	126
Figure 5.14 Learner Personal Innovativeness .....	127
Figure 5.15 Material Quality & Learning Resources.....	128
Figure 5.16 Course Flexibility .....	129
Figure 5.17 System Quality .....	130
Figure 5.18 Information Quality .....	131
Figure 5.19 Service Quality .....	132
Figure 5.20 Organizational Support.....	133
Figure 5.21 Training & Development.....	134

Figure 5.22 Assessment & Feedback.....	135
Figure 5.23 Ranking of Critical Factors.....	136
Figure 5.24 Perceived Usefulness.....	138
Figure 5.25 Perceived Ease of Use.....	139
Figure 5.26 System Use.....	140
Figure 5.27 Satisfaction.....	141
Figure 5.28 CIU BL.....	143
Figure 5.29 CIU BL: STEM vs Non-STEM.....	144
Figure 5.30 CIU BL: Previous DL Experience vs No Previous DL Experience ...	145
Figure 6.1 Thematic Map: Instructors' Experiences.....	152
Figure 6.2 Thematic Map: General Attitudes & Opinions & corresponding aspects .....	153
Figure 6.3 Thematic Map: Benefits of BL & corresponding aspects.....	165
Figure 6.4 Thematic Map: Challenges of BL & corresponding aspects.....	172
Figure 6.5 Thematic Map: Enhancements & corresponding aspects.....	190
Figure 7.1 Thematic Map: Continuity of BL & Continuity Critical Factors.....	203
Figure 7.2 Thematic Map: Continuity of BL & corresponding aspects.....	204
Figure 7.3 Thematic Map: Continuity Critical Factors & corresponding aspects .	221
Figure 8.1 General Attitudes & Opinions.....	243
Figure 8.2 Benefits of BL.....	252
Figure 8.3 Challenges of BL.....	258
Figure 8.4 CIU Decisions & Future of BL.....	271
Figure 8.5 Enhancements.....	278
Figure 8.6 Top Seven Continuity Critical Factors.....	283
Figure 9.1 Instructors' Experiences.....	295
Figure 9.2 Continuity of BL.....	297
Figure 9.3 Continuity Critical Factors.....	299
Figure 9.4 Influencing the Continual Use of BL.....	301
Figure 9.5 Summary of Contributions.....	303

## **List of Tables**

Table 2.1 Private Universities: Locally Funded (Ministry of Education, n.d).....	26
Table 3.1. Relationships Between Critical Factors and Effectiveness Measures ....	72
Table 4.1 Instructor Demographic .....	94
Table 5.1 Critical Factors Ranking per Dimension.....	148

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## **Declaration**

I declare that the work presented in this thesis is, to the best of my knowledge and belief, original and my own work. The material has not been submitted, either in whole or in part, for a degree at this, or any other university. This thesis conforms with the word length of the program. Excluded from the word length is the material preceding the main text of the thesis, (the title page, contents and abstract), citations, and the material following the main text of the thesis (the appendices, and the list of references and/or the bibliography).

# Chapter 1: Introduction

Blended learning (BL) in the Middle East and North Africa (MENA) region is considered relatively new as it has recently been slowly implemented within Higher Educational Institutions (HEIs). From the beginning of the year 2000, HEIs within the MENA region were quite skeptical with other teaching methods that did not follow the traditional face to face (F2F) teacher-centered model of teaching (Nasser & Abouchedid, 2000). Yet a shift from the skeptic attitude had been seen, as research from North America and Europe had shown the true benefits and acceptance of a BL environment (Weber, 2010). Thus, as HEIs within the MENA region continually follow similar paths of those within Europe and North America, the adoption of technology within their educational systems would have been deemed necessary to keep up with international standards, as HEIs within the Arab Region have lacked so in the past (Al-Muaayrah, 1999; O’Sullivan, 2015). Moreover, as such teaching modes had been considered relatively new within the MENA region, they are more so within countries part of the Gulf Cooperation Council (GCC) region such as the United Arab Emirates (UAE).

This chapter will provide an introductory overview of this research study. A brief understanding of BL in the UAE will be presented first followed by a discussion surrounding BL’s definitions. This discussion will also situate BL in relation to other related terms which are often used interchangeably. This chapter will also present a summary of the critical factors of BL and their respective definitions. Additionally, an overview of the continuity of BL will be provided in terms of how continuity may be measured and the importance of focusing on BL continuity. Moreover, this chapter will also depict the rationale, the purpose for conducting this research, and this study’s research questions. Furthermore, an overview of the research methodology used to conduct this study and information regarding the researcher will be showcased. Finally, the overall structure of this thesis will be outlined.

## **1.1 Blended Learning in the United Arab Emirates**

In recent years, the United Arab Emirates (UAE) had emphasized the necessity of implementing BL within its educational sector (Vision 2021, 2011) as BL courses had been provided scarcely within HEIs in the country. Additionally, HEIs who had implemented BL components to their existing courses, had merely done so alongside the traditional delivery methods without any changes in attendance requirements for either students or instructors. However, due to the Covid-19 pandemic, the education sector within the UAE had been drastically changing at an accelerated pace than was once originally planned for. The previously outlined educational plans, listed within UAE's Vision 2021, of implementing a wide array of BL programs within HEIs, had been accelerated sooner than expected. All HEIs had been required, with the guidance of the Ministry of Education, to implement BL programs, to both undergraduate and postgraduate programs, to ensure that the mandatory safety precautions were being upheld. As a result, HEIs have adopted a transforming BL approach to their existing courses, which focuses on making a great change to the existing learning environment that promotes active learning (Graham, 2009). Ultimately, the presence of the Covid-19 pandemic, has forever changed the way in which instructors teach their students, as returning to the traditional teaching methods is no longer in the foreseeable plan. Concurrently, the Ministry of Education had already announced several initiatives within the coming years in line with the implementation of further BL programs throughout all schools and HEIs.

However, the quickness in which HEIs in the UAE have changed their traditional programs will naturally affect the effectiveness of the BL courses offered as the development of these new programs had been created and implemented within a short period of time. Due to such circumstances, instructors had not been involved enough in aiding in the creation of their own BL courses. This situation would thus be deemed problematic, as it is essential for instructors to be involved with converting their own courses into a BL one, as instructors have a responsibility "to ensure the integrity of the curriculum and the quality of instruction in its implementation" (Keating, 2015). Furthermore, as instructors are required to continuously improve the delivery of their BL courses, which best suits their students and the institutions, they must provide their input from the beginning of the implementation



process. If not, instructors may begin to feel dissatisfied with the BL course, as previous research has shown that many instructors do not enjoy teaching BL courses (Castle & McGuire, 2010; Entonado, 2009; Howard & Mozejko, 2015; Jammal, 2012).

Therefore, more research is necessary to understand instructors' overall perceptions, as BL courses will be required to be further enhanced throughout the coming semesters and years due to the rapid nature in which they were implemented from the beginning as a result of the Covid-19 pandemic. If not, there will most certainly be implications on instructors' attitudes towards their BL courses and their overall satisfaction, which in turn can also affect students' experiences. This will similarly have a direct impact on BL continuity as their decision to continually teach such BL courses are directly affected by their perceived experiences and level of satisfaction.

It is important to clarify that this research study does not look at cases where instructors are forced to teach BL courses, but rather choose to do so. Senior managers have previously allowed instructors to choose whether or not they would like to teach BL courses, and thus, have been able to decide if they would like to continue to do so in the future. Also, a great deal of research studies have adopted cases of forced implementation of distance learning (DL) courses (Gomez et al., 2023; Rachman et al., 2021; Ramli et al., 2022; Van Der Merwe & Pedro, 2022) and thus, focusing on a case of instructors' choice can also help enrich the current body of literature, particularly within the UAE.

## **1.2 Defining Blended Learning**

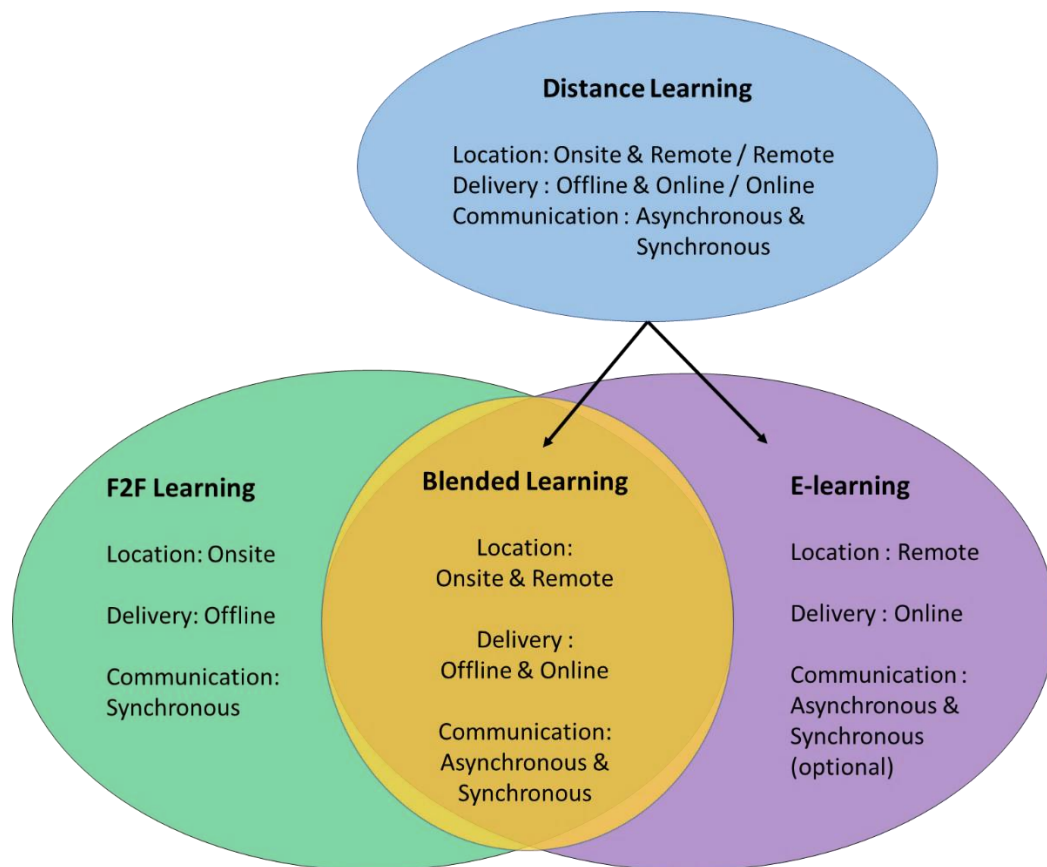
Many scholars have defined BL as either: a combination of "instructional methods" (Driscoll, 2002; Rossett, 2002); a combination of off-line and online learning activities; or a mixture of F2F learning and online learning, which includes but is not limited to blending lectures together (Akkoyunlu & Soylu, 2006; Garrison & Kanuka, 2004; Ghazal et al., 2018; Reasons et al., 2005; Stubbs et al., 2006; Thorne, 2003; Young, 2002). Graham (2006) had defined BL as the combination of two different teaching and learning models, where the use of technologies is the central role of BL. This definition has been universally adopted by scholars for many years, however it lacks an in-depth understanding of what BL

encompasses. Driscoll (2002) provides a deeper understanding of such by suggesting that BL can be split into four concepts. These four concepts include the combination of each: (1) “web based technology to accomplish an educational goal”, (2) “pedagogical approaches to produce an optimal learning outcome with or without instructional technology”, (3) “instructional technology with F2F instructor-led training”, and (4) “instructional technology with actual job tasks in order to create a harmonious effect of learning or training” (Driscoll, 2002).

Even though there are numerous definitions of BL, which have been adopted throughout the years, scholars have still expressed concern for the ambiguous ways in which BL is still defined today (Dziuban et al., 2018; Evans et al., 2020; Ibrahim & Nat, 2019). More so, a great deal of scholars often use the terms DL, e-learning, and BL interchangeably, even though they have differences. This ambiguity may also be reflected on practitioners who could think that these terms mean the same thing. The definitions of such terms, from the point of view of this research thesis, are as follows:

- DL is “*a field of education that focuses on the pedagogy/andragogy, technology, and instructional system design that are effectively incorporated in delivering education to students by teachers and students may communicate asynchronously and synchronously*” (Al-Arimi, 2014).
- E-learning is “*a combination of content and instructional methods delivered by media elements such as words and graphics on a computer intended to build job-transferable knowledge and skills linked to individual learning goals*” (Clark & Mayer, 2008).
- BL is defined as “*learning based on various combinations of classical f2f lectures, learning over the Internet, and learning supported by other technologies, aimed at creating the most efficient learning environment*” (Hoic-Bozic et al., 2008).

To further differentiate the above terms, the figure below, Figure 1.1, presents such in terms of location, delivery, and communication.



*Figure 1.1 DL, BL, and E-learning comparisons*

As depicted in Figure 1.1, BL & e-learning do in fact have similarities, as both situations provide synchronous and asynchronous online activities. However, they are not synonyms, as e-learning, which is also commonly known as online learning (McGreal & Elliott, 2008) only applies to situations where teaching and learning are conducted online and remotely (Liaw et al., 2007), unlike in a BL environment, which includes various onsite and offline learning (Graham, 2005). Also, from the point of view of this thesis, DL is an umbrella term which encompasses both BL and e-learning. Scholars have suggested that DL is in fact a broad term used to indicate that instructors and learners are at a distance (Al-Arimi, 2014), however, it is not meant to suggest that teaching is exclusively provided online (Barbour, 2021). Therefore, the term DL should not be used as a synonym of either e-learning or BL. More so, making the distinctions with the terminologies adopted is important as not all DL courses are alike. However, as various people are involved in different DL courses, they may

believe that all DL courses are in fact similar. Thus, when speaking of a BL course, a specific definition should be adopted, as the term BL may mean differently to various people.

Furthermore, the varying definitions adopted by different scholars over the years portrays the difficulty of defining BL. One of the reasons for such, could be a result of the various combinations and blends which are possible to use to create a BL environment. A BL environment can occur within varying levels such as activity, course, program, and institution; however, the most common blend which occurs within HEIs, and what is discussed in this research study, occurs at the course level (Graham, 2006; Graham, 2009; Huang & Zhou, 2006). Blending at a course level occurs when all activities within the course involve a mix between traditional learning and online learning. Thus, when designing a BL course, it can be structured in such a manner that it may have as little or as much of online interaction versus F2F interaction (Dey & Bandyopadhyay, 2019; Singh & Reed, 2001; Graham, 2005); and as a result, no two BL courses may be alike as there are numerous combinations which can be made.

It is important to acknowledge that these limitations are relevant to the context of my research as it could mean that different people could have different definitions and understandings of BL. This may be the case with the instructors who took part in this study. There is a possibility that their understanding of BL may differ than what was defined in this section, even though at the time this study was conducted, all instructors were teaching similar types of BL courses within their HEIs. However, certain instructors may still believe that all DL courses are the same, irrespective of their differences. Thus, it is important to acknowledge the problematic nature of assuming that a single definition of BL is being understood in the minds of the respondents.

### **1.3 Blended Learning's Critical Factors**

When implementing BL within HEIs, several critical factors must be examined to ensure the effectiveness and continuity of such BL programs and courses. On the basis of the extensive literature review discussed in Chapter 3 of this research thesis, the BL's critical factors can be categorized into five main dimensions with characteristics that are related to

learners, instructors, the blended course, the learning management system, and the organization in which the BL course is taking place. These characteristics are briefly described below; whilst detailed analysis can be found in Chapter 3 of this thesis.

### **1. Learners' Characteristics (Dimension #1):**

There are 5 critical factors which are related to this dimension. The first, *Computer Anxiety* can be described as “the fear or apprehension felt by individuals when they used computers, or when they considered the possibility of computer utilization” (Simonson et al., 1987, p. 238). The second, *Technological Experience* relates to the students experience when exposed to the technology related to the course and ultimately the skills that is learnt by the student (Thompson et al., 2006). The third, *Self-Efficacy* can be defined as students’ “judgments of their capabilities to organize and execute courses of action required to attain designated types of performances” (Bandura, 1986, p. 391). The fourth, *Learner Control* is defined as “individuals’ ability to manage the learning process” (Yilmaz, 2017). The fifth, *Personal Innovativeness* can be defined as the “tendency to experiment with and to adopt new information technologies independently of the experience of others” (Schillewaert et al., 2005).

### **2. Instructors' Characteristics (Dimension #2)**

There are 5 critical factors which are related to this dimension. The first, *Instructors' Teaching and Learning Style* is related to the type of learning style that the instructor wishes to use when teaching the students. Learning style can be defined as “characteristic cognitive, affective, and physiological behaviors that serve as relatively stable indicators of how learners perceive, interact with, and respond to the learning environment” (Keefe, 1979, p. 4). The second, *Instructors' Attitude* relates to the instructors’ notion in participating within the courses that involve blended learning (Bhuasiri et al., 2012). The third, *Instructors' Control* relates to the level of control that the instructor has when using the technology at hand (Bhuasiri et al., 2012). Instructor control also relates to technological experience and digital literacy, similar to that concerning the factor related to students. The fourth, *Instructors' Responsiveness* can be defined as the students’ “perception of a prompt response

from the instructor to online problems and requests” (Sun et al., 2008). The fifth, *Academic Workload & Time Allocation* refers to how much time instructors spend on preparing their BL courses and the added workload that is required from them.

### **3. Systems’ Characteristics (Dimension #3)**

There are 3 critical factors which are related to this dimension. The first, *System Quality*, relates to the learning management system’s performance, functionality, interactivity, and response (Liu & Ma, 2006; Pituch & Lee, 2006). The second, *Information Quality* can be defined as the “perceived output produced by the system” (Al- Busaidi, 2012) and it relates to characteristics such as reliability, relevance, and accuracy (Bailey & Pearson, 1983; Bhuasiri et al. 2012; Seddon, 1997). The third, *Service Quality*, can be defined as the “quality of support services provided to the systems’ end users” (Al-Busaidi, 2012). This relates to characteristics such as reliability, responsiveness, and empathy (Kettinger & Lee, 1994; Roca et al., 2006).

### **4. Course Characteristics (Dimension #4)**

There are 2 critical factors which are related to this dimension. The first, *Material Quality and Learning Resources* can be defined as “the quality of writing, images, video, or flash to meet generally accepted standards of semantics, style, grammar, and knowledge” (Bhuasiri et al., 2012). The second, *Course Flexibility* can be defined as users’ “perception of the efficiency and effects of adopting e-learning in their working, learning, and commuting hours” (Bhuasiri et al., 2012). It also relates to characteristics dealing with “flexibility in time, location, and methods” (Sun et al., 2008).

### **5. Organization Characteristics (Dimension #5)**

There are 3 critical factors which are related to this dimension. The first, *Organizational Support* is related to the type of support provided by senior managers related to the implementation of the BL courses, the use of the technology itself, and the importance of its use on the overall success of the organization. The second, *Training & Development* can be defined as “the amount of specialized instruction and practice that is afforded to the

user to increase the users' proficiency in utilizing the computer capability that is unavailable" (Bhuasiri et al., 2012). The third, *Assessment and Feedback* is related to the evaluation that instructors and students provide the institution about several aspects related to their experience with their BL course.

## **1.4 Continuity of Blended Learning**

When HEIs implement distance learning (DL) programs, ensuring the continuity of such programs and courses is crucial. It is necessary for senior managers to assess the effectiveness of their programs and courses and ensure that they meet the educational objectives. However, many of these HEIs tend to think about long term continuity of such programs as an afterthought (Dholakia et al., 2006). The necessity of ensuring continuity is due to several factors such as (a) the "strategic risk" (Tuan, 2004) taken when undergoing organizational change from changing policies, procedures, and protocols (Blustain, 2008; Ghazal et al., 2018; Owston et al., 2006), which can ultimately change the core values and norms, as well as the culture of the institution (Niemic & Otte, 2009, Tuan, 2004; Wallace & Young, 2010); (b) ensuring return on investment (Niemic & Otte, 2009) from the initial costs associated with purchasing as well as maintaining and updating learning management systems (Ghazal et al., 2018); (c) attaining a high rate of student attraction (Brown, 2010; Niemic & Otte, 2009) by offering students successful BL programs with "substantial and differentiated value" (Dholakia et al., 2006) which in turn helps institutions with their rankings and reputation (Baty, 2010); (d) ensuring student retention (Brown, 2010) which further ensures the continuation of HEIs' revenue streams gained from tuition fees, sales of books, etc. (Al-Samarraie et al., 2017; Dholakia et al., 2006); and (e) reaping the expected short and long-term benefits associated with BL (Al-Samarraie et al., 2017) such as added flexibility, higher enrollment rates, cost-effectiveness, and improvement in pedagogy (Graham et al., 2005). Hence, the continuity of such programs is dependent immensely on whether or not instructors and students find it beneficial and accomplishes their educational objectives (Dholakia et al., 2006).

Therefore, the continuity of offering BL courses are generally quantified based on the *continuous intention to use (CIU)* criteria, which is considered as the primary factor related to the effectiveness of technological learning such as BL (Cheung, 2008; Chiu et al., 2005; Chiu et al., 2007; Al-Samarraie et al., 2017; Limayem & McGill et al., 2014). CIU is defined as the “intention related to technological continuance” which can “be measured by using the initial set of perceptions” (Bhattacharjee & Barfar, 2011). Thus, senior managers can benefit greatly from understanding the effectiveness factors (CIU measures, CIUMs) that impact instructors’ decisions to continually use BL & the accompanying LMS (Bolliger, 2004).

In order to study the critical factors that contribute to the CIUMs, several models have been developed based on the Technology Acceptance Model (TAM) (Davis, 1986). The TAM was developed to understand individuals’ attitudes and its effect on the actual system use. The original model was first created in the context of information systems and has been adapted over the years to study technology acceptance within a higher education setting. Therefore, based on my literature review, the most prominent CIUMs are categorized into four main dimensions with characteristics related to perceived ease of use, perceived usefulness, system use, and user satisfaction. These characteristics are defined below.

1. **Perceived ease of use** is defined as “the degree to which a person believes that using a particular system would be free of effort” (Davis 1989, p. 320).
2. **Perceived usefulness** is defined as “the degree to which a person believes that using a particular system would enhance his or her job performance” (Davis 1989, p. 320).
3. **System use** refers to the users’ actual use of the system provided. Actual Use of the system is defined as “a behavioral response, measured by the individual’s action” (Davis, 1989).
4. **User satisfaction** can be defined in several ways. In the context of this study, instructor satisfaction can be defined as “the perception that teaching in the online environment is effective and professionally beneficial” (Bolliger & Wasilik, 2009).

For analyzing the CIUMs, Bhattacharjee (2001) modified the Expectation Confirmation Theory (ECT) of consumer behavior into the Expectation Confirmation Model



(ECM) for application in the area of Information System (IS). Both ECT and ECM assume that satisfaction has a central role in explaining continuance of IS usage. However, research findings on the relationship between user satisfaction and system usage have been mixed and inconclusive (Bokhari, 2005). Notably, the ECM is based on extrinsic motivations (e.g. perceived usefulness, user satisfaction), ignoring the intrinsic motivation of users and, therefore, requires augmentation in terms of theoretical extension to account for IS continuance (Hayashi et al., 2004; Sorebo et al., 2009; Wu et al., 2006). In addition, Sorebo et al. (2009) found that intrinsic motivation can be useful for explaining e-learning continuance intention. Therefore, the factor of intrinsic motivation must be considered and further testing that incorporates perceptions of perceived usefulness in relation to continued intention is necessary.

## **1.5 Rationale of the Study**

In order to facilitate the discussion, the rationale of the study has been arranged into the following 4 aspects:

### **1. Insufficient Reported Literature Related to BL & CIU:**

When examining the general reported literatures related to BL, it can be seen (as I elaborate further in Chapter 3) that there is a focus on studying its adoption and acceptance from varying perspectives, especially that of students, with lesser interest on examining critical factors, which impact its CIU (Al-Marroof et al., 2021a). However, the greater portion of the research studies, which look at CIU, has focused on the concept of e-learning (Al-Marroof et al., 2021b). The same is true concerning the available literature in the MENA region. I have found through the extensive review that a majority of the studies focuses on the concept of e-learning rather than the concept of BL (AlBlooshi & Abdul-Hamid, 2019; Alhamad, 2020; Atif & Guessoum, 2010; Deshmukh et al., 2012; Eldeeb, 2014; Fidalgo et al., 2020; Salloum et al., 2019).

## 2. Lack of Reported BL Research within the MENA Region

The majority of the literature related to BL courses within the MENA region emphasize on studying the effectiveness of a BL course by examining changes in student performance measures; such as test scores, mid-term results, or GPAs; and focus on understanding obstacles, which students may have faced when undergoing such courses. These studies have shown mixed reviews, as several studies have found positive changes (Adas & Bakir ,2013; Alsalhi et al., 2021b; Al-Zahrani, 2008; El-Deghaidy & Noubi, 2008; Gurpinar et al, 2009; Mousa, 2008; Shana, 2009), while others have found no effect with such implementation (Akyuz & Samsa, 2009; Alshawish et al., 2021a; Alshwiah, 2009; Kocoglu et al., 2011).

Meanwhile, there are insufficient studies, within the GCC region, which have been published focusing on instructors' perceptions related to BL courses. Hence, instructors are often overlooked in research studies even though it may be argued that instructors' perspectives might be of more importance, as once BL courses are implemented, instructors become "facilitators of the learning process" (Selim, 2007). Moreover, HEIs within the UAE have a large number of instructors from all over the world, in excess of 50 nationalities in each HEI, whom have extremely diverse backgrounds and have been educated from different types of higher education systems. Thus, their varying experiences and thinking can ultimately influence their perspectives related to the critical factors of their BL course (Sumak et al, 2011).

Furthermore, it has been noticed, that of the available literature related to BL courses within the GCC, most of those studies have originated from the Kingdom of Saudi Arabia and not from the UAE (Naveed et al., 2017). Thus, a generalization of which critical factors affect BL courses within the UAE cannot be made by simply basing it on research studies published within North America and Europe, as HEIs' systems, policies, and procedures may differ between such countries. Therefore, a re-evaluation of such critical factors must be made as some may not be applicable to the UAE and an aim to discover culture related factors is necessary. Furthermore, as the

learning environment has changed over time, a re-evaluation of currently defined critical factors from literature is essential as certain factors may have become obsolete while others may have become more important. Thus, a re-examination of the most influential critical factors and an aim to define new ones should be made to reflect the current revolving of educational technologies.

3. Lack of Research from Instructors' Viewpoint:

The lack of BL reported research studies, which focuses on instructors' perspectives, is not only evident within research in the UAE, as several authors advocated the need to incorporate more research, which focuses on BL from an instructors' perspective within varying countries (Çardak & Selvi, 2016; Mozelius & Rydell, 2017; Porter et al., 2016). Anthony et al. (2019) & Tiell (2017) conducted research within Malaysia and the United States of America, respectively, and found that there was a lack of research studies which focused on instructors' perspectives of adopting BL within their classrooms and what impact could its adoption have on instructors. Therefore, focusing on instructors' perspectives of BL is necessary to deal with the current shortcoming in literature by portraying instructors' attitudes and opinions towards the adoption of BL within their respective HEIs and how its adoption may have affected their own experiences. As well, Al-Marroof et al. (2021a) advocate that further research must focus on CIU BL, especially from the instructors' perspectives, "in order to determine what sustains its applicability for educational purposes". Thus, this research thesis may also help deal with this shortcoming in literature by identifying which critical factors instructors perceive to influence their continuity decisions in terms of using BL as a teaching modality and using the associated LMS.

4. Cultural Considerations of Students:

The nature of students, who study at HEIs in the UAE, may also impact instructors' experiences with teaching BL courses. Students from GCC countries may react differently to the adoption of BL courses than those from Western countries, due to their varying cultures, beliefs, and cultural perspectives (Hall, 1976; Hofstede,

2001). Literature has reported that Arab students: (a) view instructors as most knowledgeable and responsible for their learning and do not question the information being given to them, nor do they usually participate unless being asked; (b) expect constant clear guidance from their instructors related to tasks and assignments; (c) thrive on constant non-verbal interaction more than verbal and believe that their instructors' physical presence is essential to their learning process; and (d) appreciate attending live classrooms and engaging in group discussions (Al-Harthi, 2005; Al-Hashlamoun, 2021; Al-Issa, 2005; Wurtz, 2005). Thus, students in the UAE may respond differently to BL than those in different cultures. Hence, in this case, instructors' attitudes and perceptions of teaching BL courses may be impacted by their students' responses and experiences of learning in a BL environment (Eryilmaz, 2015). Therefore, it is plausible that instructors' overall perceptions towards their BL courses, continuity decisions, as well as the identification of critical factors, which they perceive to be most principal to their continuity decisions, may be affected by the nature of the students at their respective HEIs.

## **1.6 Purpose of the Study**

The purpose of this study represents my motivation for this research thesis.

The purpose for conducting this study is to gain a deeper understanding of instructors' intentions to continually teach their BL courses in HEIs in the UAE and identify the critical factors which are perceived to be most influential in affecting their continuity decisions. The study aims to:

- Understand instructors' experiences towards their BL courses
- Gain an in-depth understanding of instructors' intentions to continually teach their BL courses and continually use the associated LMS
- Identify which critical factors instructors perceive to greatly influence their decisions to continually teach their BL courses

## **1.7 Research Questions**

The research questions of this study address the shortcomings in the literature.

The research questions of this study are as follows:

What influences instructors' intention to continue using blended learning in their courses, within HEIs in the UAE, in the future?

- a) What are instructors' experiences regarding their existing blended learning courses?
- b) What are instructors' intentions to continue using blended learning?
- c) Which critical factors are most influential, from instructors' perceptions, to continue to teach their courses using blended learning in actuality?

## **1.8 Research Methodology Overview**

This research study was carried out using a mixed method, qualitative dominant, approach, which enabled the acquiring of extensive rich data which answered this study's research questions. In order to collect data, both quantitative and qualitative data were collected sequentially, with the quantitative collected first.

The participants who took part in this study were instructors who were currently teaching BL courses in HEIs within the UAE. The population was chosen from differing institutions, within several cities, where some were public and others private.

In order to collect the necessary data, online questionnaires were first administered, and had been completed by 319 instructors. Follow-up interviews, which followed a semi-structured approach, were then administered with 21 instructors from varying HEIs. Additionally, a combination of programs were used to analyze the collected data to interpret the findings and formulate a sound conclusion.

## **1.9 About the Researcher**

I had decided to adopt this research study as a result of my own interests, educational background, and where I grew up. I have always had an interest in technology and how the use of it can impact businesses. My educational background reflected my interests as I had received my BSc in Management Information Systems from UAE University and my MSc in IT Project Management from the University of Manchester. Hence, when I began thinking of what research topic to adopt for my PhD, I naturally gravitated towards educational technology research. While, the focus on HEIs came from my own family background, as my father is an academic and retired provost at one of largest public HEIs in the UAE and thus my upbringing revolved around higher education. As well, I do believe that my career choices may have played an unintentional role in me choosing to focus my research on HEIs. I had previously worked as a Project Specialist within an HEI in Abu Dhabi and I aspire to work in the future as a professor in the UAE. Thus, focusing on HEIs was an interest that I had from the start of my PhD.

Moreover, I have lived in the UAE for over 20 years and consider this country as my second home. Thus, it was only natural when I had decided to conduct my PhD that I would be interested in research related to this country. Therefore, as I began looking at conducted research within the UAE, which focused on the implementation of DL, the shortcomings in research was quite clear. The lack of focus on the concept of BL within HEIs in the UAE sparked my interest to learn more and focus on instructors' perspectives towards the adoption and continuity of BL. My motivation to focus specifically on CIU BL was a result of both shortcomings in literature as well as a personal experience which I had encountered while working at an HEI in Abu Dhabi. During my employment, the slow adoption of BL had begun and instructors who had chosen to teach BL courses, within various colleges, chose no longer to do so after experiencing it for one semester. I had tried to understand the reasons behind their decisions by speaking to a few instructors however their vague responses had continued to pique my interest, particularly that the same was true for a number of instructors which I had known within other HEIs. Thus, this had made me curious to understand why this was the case, given that a great deal of research has presented the numerous benefits

which the adoption of BL can provide to the learning environment. Also, research has shown that many instructors choose to no longer continue teaching BL courses, yet I had noticed that reasons behind such was insufficiently addressed within published literature.

Therefore, I have chosen to conduct this research as I have an unbiased interest towards this topic. There is no conflict of interest by conducting this research study as I do not promote BL in the UAE and have no current affiliation with any HEI or governmental entity. Furthermore, my current position provides me with a rare vantage point of understanding the current cultural context in terms of UAE's modest culture, the overall educational system, and the nature of students who study at HEIs in the UAE.

### **1.10 Structure of The Thesis**

This thesis is comprised of nine chapters. The structure will be as follows:

**Chapter One:** The first chapter detailed the main motivation behind the study, purpose of the study, as well as the research questions which will be answered within this research study. It also provided a summary of the data collection methods and a brief description about the researcher.

**Chapter Two:** The second chapter describes the context of the study by providing background information related to HEIs in the UAE; the characteristics of Arab students; the development of BL; and understanding the effect of the Covid-19 pandemic on HEIs and future plans for further implementation of BL programs and diplomas. A summary of the chapter is also provided.

**Chapter Three:** The third chapter presents the literature review which include presenting the process of reviewing the literature and discussing BL's benefits and limitations. The chapter also presents the critical factors related to the successful implementation of BL. All topics related to such critical factors were discussed in detail such as their definitions, research related to each factor, and specifically how they affect the effectiveness constructs. Additionally, a summary table of the relationships between the critical factors and the respective effectiveness constructs was presented. Moreover, the CIU of BL courses was

defined, and research related to which critical factors and effectiveness constructs which have a direct relationship with CIU was provided. Finally, the framework which this study follows was presented as well as an overall summary of the chapter.

**Chapter Four:** The fourth chapter represents the research methodology that was chosen for this study. It presents information concerning the adopted research philosophy, the research method which I had chosen to carry out for this study, and the research outline which had been followed. It also describes the involved participants, as well as the instruments which will be used in this study. A detailed account of the data collection methods and the development of the questionnaire and interview questions was explained. Furthermore, details regarding the data analysis method was provided and an overall summary of the chapter was presented.

**Chapter Five:** The fifth chapter entails the analysis of the quantitative data which was collected using the online questionnaire. The results of each of the 18 critical factors was presented and a prioritization figure was shown which presents the rankings of all the critical factors from the most perceived principal to the least. Additionally, the responses related to each effectiveness measure was provided as well as those related to CIU decisions. A summary of the quantitative findings was also presented.

**Chapter Six and Seven:** These chapters present the analysis of the qualitative data which was collected from the follow-up interviews. The data was presented based on the themes generated using NVivo. A summary of the qualitative findings was also presented.

**Chapter Eight:** The eighth chapter represents the discussion chapter which aims to respond to the study's research questions and an in-depth discussion of this study's findings was presented.

**Chapter Nine:** The ninth chapter presents the conclusion of this research study which demonstrates the fulfillment of the purpose of this research study by summarizing the key findings. The chapter also emphasizes on this study's academic contributions to knowledge. The limitations of this study, as well as future recommendations for research were also discussed in detail.



## **Chapter 2: Context of the Study**

This chapter will present the context of this research study, which portrays significant information predominantly related to HEIs and BL in the UAE. The detailed information provided in this chapter will enable the full understanding of all aspects related to the context of this research study and are discussed within subsequent chapters. Thus, this chapter will provide background information related to the UAE, present an overview of the UAE's higher education system, and will also shed light on the characteristics of the learners who study within the UAE. Moreover, this chapter will present BL in the UAE and the impact which covid-19 had on HEIs. Finally, a summary of the chapter will be provided.

### **2.1 Background of the UAE**

Located on the southeast coastline of the Arabian Gulf and situated in the Middle East, the United Arab Emirates (UAE) is a young yet highly developed country. The UAE was formed in 1971, however it was not until 1972 that it was finally agreed upon to unite their seven emirates (Morris, 2005). The seven emirates include Abu Dhabi; which is the capital, Dubai; Sharjah; Fujairah; Ras El-Khaimah; Umm Al-Quwain; and Ajman. Even though there are seven emirates, there is a total of 8 cities, all emirates with the inclusion of Al Ain which is a city located in the emirate of Abu Dhabi. A map of the UAE can be seen below in Figure 2.1.

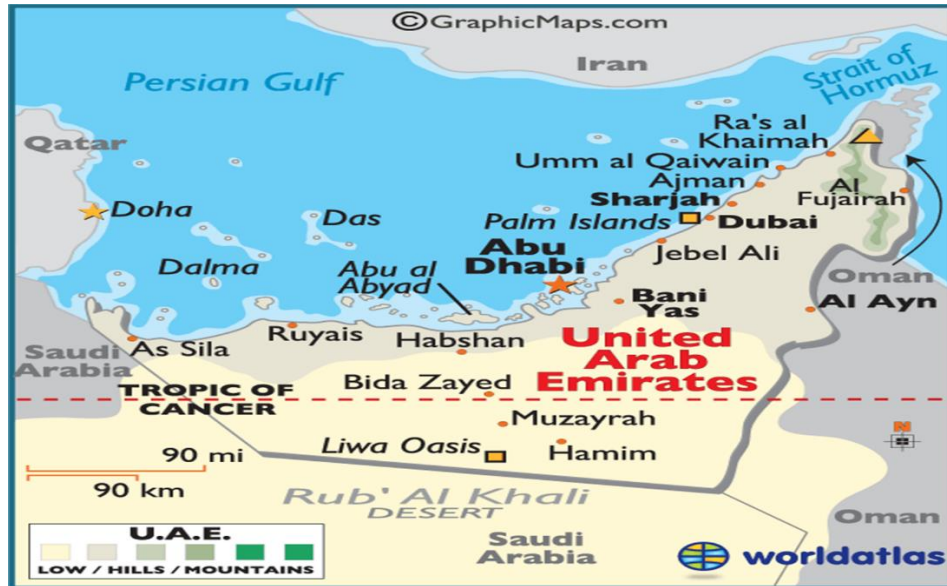


Figure 2.1 Map of the United Arab Emirates (GraphicMaps.com)

The UAE is a fairly liberal country; however, its citizens are still modest and follow traditional cultures which are rooted from their religion of Islam (Hopkins & Trejo, 2020). English is widely used among residents within businesses even though the national language is Arabic (Dorsey, 2018; Siemund et al., 2021). Additionally, the UAE is the 6<sup>th</sup> richest country in the world as they are one of the largest producers of oil (ADNOC, n.d). However, the UAE government has shifted from their traditional mindset of dependence on oil production to a more diversified economy which focuses on tourism, renewable energy, technology, and education to “create sustainable development and wealth for the coming generations” (Ministry of Climate Change & Wealth, n.d).

## 2.2 UAE’s Higher Education

### 2.2.1 National Context of UAE’s Higher Education

When the UAE was first established, the education system was made up of 74 schools and no universities. The first HEI, known as the United Arab Emirates University (UAEU), was established in the city of Al Ain in 1977 (UAEU, n.d). UAEU is one of three public institutions which are governmentally funded and is currently ranked number 290 on QS World Ranking. They have over 13,000 students currently enrolled and offer 50

undergraduate and 67 postgraduate programs (UAEU, n.d). The establishment of UAEU had allowed all Emirati nationals to access free public higher education which was a mandate by the late President, His Highness Sheikh Zayed bin Sultan Al Nahyan, to ensure that higher education would be accessible to all nationals as it was essential for the growth of the economy.

The two other public HEIs in the UAE are Higher Colleges of Technology (HCT) and Zayed University (ZU), which were founded in 1988 and 1998 respectively (HCT, n.d; ZU, n.d). HCT has 16 campuses within multiple cities in the UAE and over 23,000 students are currently enrolled. They offer 28 undergraduate and 9 postgraduate programs (HCT, n.d). While, ZU has 2 campuses in Dubai & Abu Dhabi which host over 10,000 students and offer 40 undergraduate programs (ZU,n.d). Other universities within the UAE are known as private institutions and are made up of two types: (1) owned and governed by local institutions or a local national, or (2) global partnerships: which are owned by foreign institutions that have opened campuses within the UAE (Wilkins, 2010). The main distinction between the two types of HEIs is that public ones are governmentally funded and thus, provide all enrolled Emirati nationals with free education, while private HEIs are not and thus any student enrolled, including Emirati nationals, must pay tuition fees. Further detailed explanation regarding the differences between the two types of HEIs can be found in section 2.2.2.

All HEIs within the UAE must be first accredited by the MOE during its inception phase and before officially enrolling students. Further information related to such is presented in section 2.2.2. All universities teach classes using the English language except for classes related to Islamic Studies, Foreign Languages, and Sharia Law (Hopkyns, 2020). The private universities that are owned by local institutions or a local national and have been officially accredited by the MOE have been listed below in Table 2.1 (Ministry of Education, n.d).

Institution Name	
Abu Dhabi Polytechnic	Campuses: Abu Dhabi & Al Ain 20 Undergraduate Programs 2000 Students
Abu Dhabi School of Management	Campus: Abu Dhabi 4 Masters Programs 700 Students
Abu Dhabi University	Campuses: Dubai, Abu Dhabi, Al Ain & Al Dhafra 31 Undergraduate Programs 16 Postgraduate Programs 7500 Students
Al Falah University	Campus: Dubai 10 Undergraduate Programs 1 Master's Program 1200 Students
Ajman University	Campus: Ajman 23 Undergraduate Programs 18 Postgraduate Programs 5500 Students
Al Ain University of Science and Technology	Campuses: Al Ain & Abu Dhabi 17 Undergraduate Programs 9 Postgraduate Programs 1500 Students
Al Ghurair University	Campus: Dubai 10 Undergraduate Programs 2 Postgraduate Programs 1100 Students
Khwarizmi International College	Campus: Abu Dhabi & Al Ain 16 Undergraduate Programs 2000 Students
Al Qasimia University	Campus: Sharjah 5 Undergraduate Programs 1500 Students
American University of Dubai	Campus: Dubai 13 Undergraduate Programs 8 Postgraduate Programs 2000 Students

American University of the Emirates	Campus: Dubai 25 Undergraduate Programs 10 Postgraduate Programs
American University of Ras Al Khaimah	Campus: Ras Al Khaimah 22 Undergraduate Programs 7 Masters & 1 PhD Program
American University of Sharjah	Campus: Sharjah 28 Undergraduate Programs 19 Masters & 4 PhD Programs 20000 Students
British University in Dubai	Campus: Dubai 6 Undergraduate Programs 9 Masters & 7 PhD Programs
Canadian University in Dubai	Campus: Dubai 28 Undergraduate Programs 6 Master Programs 3000 Students
City University College of Ajman	Campus: Ajman 3500 Students 10 Undergraduate Programs 2 Master Programs & 7 Postgraduate Diplomas
Dubai Institute of Design and Innovation	Campus: Dubai 4 Undergraduate Programs
Dubai Medical College for Girls	Campus: Dubai 2 Undergraduate Programs 1 Master's Program 750 Students
Dubai Pharmacy College for Girls	Campus: Dubai 1 Undergraduate Program 1 Master's Program 550 Students
Dubai Police Academy	Campus: Dubai 3 Undergraduate Programs 13 Masters & 5 PhD Programs
Emirates Academy of Hospitality Management	Campus: Dubai 4 Undergraduate Programs 1 MBA Program 500 Students

Emirates Aviation University	Campus: Dubai 26 Undergraduate Programs 14 Master Programs & 9 Postgraduate Certificates
Hamdan Bin Mohamed Smart University	Campus: Abu Dhabi 8 Undergraduate Programs 16 Master & 1 PhD Programs 1500 Students
Imam Malik College of Islamic and Sharia Law	Campus: Dubai 2 Undergraduate programs 3 Master Programs 1000 Students
Al Wasl University	Campus: Dubai 3 Undergraduate Programs 2 Masters & 3 PhD Programs 3500 Students
Jumeirah University	Campus: Dubai 5 Undergraduate Programs 1 Masters Programs 600 Students
Khalifa University	Campus: Abu Dhabi 16 Undergraduate Programs 25 Masters & 11 PhD Programs 3500 Students
Mohammed bin Rashid School of Government	Campus: Dubai 5 Master Programs & 5 Postgraduate Diploma 500 Students
Mohammed bin Rashid University of Medicine and Health Sciences	Campus: Dubai 1 Undergraduate Program 8 Masters & 1 PhD Programs 300 Students
Mohammed Bin Zayed University for Humanities	Campus: Abu Dhabi & Ajman 3 Undergraduate Degrees 2 Masters & 2 PhD Programs 750 Students
National Defense College	Campus: Abu Dhabi 1 Master, 1 PhD & 1 Postgraduate Diploma Programs 100 Students

RAK Medical & Health Services University	Campus: Ras Al Khaimah 5 Undergraduate Programs 5 Master Programs 1500 Students
Rabdan Academy	Campus: Abu Dhabi 15 Undergraduate Programs 2 Masters Programs 1000 Students
Skyline University College	Campus: Sharjah 10 Undergraduate Programs 1 Master's Program 1100 Students
Saint Joseph University	Campus: Dubai 1 Undergraduate Program 2 Masters Programs 100 Students
Umm Al Quwain University	Campus: Umm Al Quwain 5 Undergraduate Programs 400 Students
University of Science & Technology Fujairah	Campus: Fujairah 11 Undergraduate Programs
University of Dubai	Campus: Dubai 11 Undergraduate Programs 5 Masters & 1 PhD Programs 1200 Students
University of Fujairah	Campus: Fujairah 8 Undergraduate Programs 1 Master's Program
University of Sharjah	Campus: Sharjah 55 Undergraduate Degrees 45 Masters & 15 PhD Programs 17000 Students
Emirates Institute for Banking and Financial Studies	Campus: Sharjah, Abu Dhabi & Dubai 2 Undergraduate Programs 2000 Students
Fatima College of Health Sciences	Campus: Dubai 14 Undergraduate Programs 1500 Students

Gulf Medical University	Campus: Dubai 10 Undergraduate Programs 13 Masters & 1 PhD Programs
Emirates College for Advanced Education	Campus: Abu Dhabi 1 Undergraduate Program 5 Masters, 3 PhDs & 3 Postgraduate Diploma 500 Students
Emirates Aviation University	Campus: Dubai 23 Undergraduate Programs 7 Masters Programs & 7 Postgraduate Diplomas 3000 Students

*Table 2.1 Private Universities: Locally Funded (Ministry of Education, n.d)*

The concept of global partnerships began with the University of Wollongong who had opened a campus in Dubai in 1993, offering both undergraduate and postgraduate courses. After their noticeable success, several other universities from around the world initiated global partnerships and opened their campuses in either Dubai or Abu Dhabi. Other universities that have formed global partnerships include but are not limited to New York University, Paris Sorbonne University, INSEAD Business School, New York Institute of Technology, Michigan State University, Middlesex University, Manchester Business School, Hult International Business School, Heriott-Watt University, University of Bradford, University of Exeter, and University of Birmingham. Due to the increased number of private universities and global partnerships, Dubai had created both Dubai Knowledge Village in 2003 and the Dubai International Academic City in 2007, where both locations host many HEIs (Dubai Knowledge Park, n.d). Therefore, as the UAE has now been recognized as an educational hub within the Arab region, other global partnerships are opening at an increasing rate in hopes of attracting more students from the MENA region by providing them with world class education within their proximity (Wilkins, 2010).

### **2.2.2 Higher Education Institutions in the UAE**

All HEIs in the UAE are governed by the Commission of Academic Accreditation (CAA) which follow western accreditation bodies, primarily The Western Association of



Schools and Colleges, known as WASC. The CAA, which was established by the MOE, is the “official regulatory body responsible for ensuring the quality and standards of HEIs” (MOE,n.d). The CAA imposes accreditation criteria which falls under various aspects such as “educational delivery in terms of curriculum design, teaching methodologies, assessment practices, and the use of technology” (MOE,n.d). The CAA regularly evaluates all HEIs to ensure that they comply with the accreditation criteria such as “comprehensive review of an institution's educational practices, faculty qualifications, infrastructure, and student support services” (MOE,n.d). Thus, all HEIs need to first be provided with institutional licenses, before opening and enrolling students, and such licenses are subject to renewal every 5 years. The CAA has the authority to suspend any HEIs who do not comply and meet with the various accreditation standards.

In recent years, the CAA had adapted their accreditation standards to reflect the technological advancements within the learning environment which relate to the use of various LMSs and the implementation of BL courses. Thus, “the CAA assesses how effectively BL is implemented, examining the design and delivery of online components, as well as the alignment of online and face-to-face instruction” (MOE,n.d). They also assess “ongoing faculty training and support in BL approaches” (MOE, n.d) as well as require HEIs to provide information regarding quality benchmarks to ensure that the BL courses taught are of the same standards, if not better, than those taught in the traditional format. The CAA has provided guidelines to HEIs to ensure that the incorporation of the online environment meets international standards and enhances the educational experience. HEIs had previously been encouraged to not provide more than 20% of their curriculum as BL courses, however, this may be changed in the future as the CAA continuously adjusts their guidelines and accreditation standards to meet the technological advances and initiatives set forth by the government. The CAA also contributes towards knowledge sharing and collaboration among HEIs by “facilitating networking opportunities, conferences, and workshops where institutions can exchange experiences” to collaboratively improve UAE’s education system (MOE,n.d). Most recently, the CAA organized a workshop relating to the implementation of BL within HEIs. Academics, quality assurance specialists, and senior managers, from various HEIs, were gathered to discuss future implementation of BL courses and programs and look

at the guidelines and accreditation standards set by the CAA to ensure accreditation of upcoming BL programs.

While both public and private HEIs are fairly similar and follow the regulations put forth by the CAA, there are still some differences between the types of institutions, which are described within the following 5 criteria:

1. Governance and Funding: Public HEIs are governed and funded by the UAE government and provide free education to all enrolled students. While private HEIs “operate independently and have their own governing bodies” (MOE,n.d). They receive funding from tuition fees and other investments.
2. Admission Criteria: Students gain admission into public HEIs based on academic requirements and Emirati students are given admission priority. Whereas, private HEIs consider various criteria such as “academic performance, standardized test scores, and extracurricular activities” (MOE,n.d).
3. Student Demographic: The student body make up within public HEIs have a greater number of Emirati students compared to other nationalities due to the free national education system. While, private HEIs have a mix of Emirati students and residents from varying nationalities, mostly from other Arab countries, as all students must pay tuition fees (MOE,n.d).
4. Classes: Public HEIs have gender segregated classrooms and host different genders within different campuses. This mirrors the modest UAE culture which is largely based on traditional Islamic values. Whereas, private HEIs do not adopt this system and typically have one main campus for all students (Hopkyns, 2022).
5. Program Offerings: Both types of HEIs provide a wide range of STEM and non-STEM programs within various colleges such as, but not limited to: Business & Economics, Humanities & Social Sciences, Information Technology, Agriculture & Veterinary Medicine, Law, Engineering, Education, Science, and Medicine & Health Sciences departments. However, public HEIs sometimes “prioritize programs that

align with the country's strategic priorities and economic needs” (MOE,n.d). Also, a number of international HEIs who open branch campuses in the UAE provide a limited number of programs most often related to Business, Education, Engineering & Medicine; dependent on what they perceive to be most profitable.

It is important to clarify that this research study included BL courses within several varying STEM and non-STEM disciplines and thus, the data collected is not disciplinary specific. An attempt to include data from a wide range of colleges was made and the course subjects included, specifically related to instructors who took part in the interviews, are as follows: Architecture, Software Engineering, Finance, Education, Emirates Studies, English, Law, Math, Accounting, Emergency Management, Social Entrepreneurship, Programming & Networking, Psychology, International Relations, Finance, Marketing, Statistics, Nutrition, History and Computer Science. Blended courses for STEM and non-STEM subjects do differ in terms of the type of blend adopted as STEM courses include lab work which are often conducted physically as opposed to non-STEM courses which often rely on in class teaching and class discussions. However, at the time of conducting this study and collecting the data, BL courses within varying disciplines followed similar blend types which relied heavily on online teaching compared to the number of traditional F2F classes (this was emphasized by some respondents in this study). Further elaboration related to the differences in blend type for STEM and non-STEM courses as well as the type of blend adopted during the collection of this study’s data can be found in section 2.5. Additionally, this study included instructors employed at both public and private HEIs. Most public and private HEIs are research intensive institutions, while two private HEIs, included in this study, are teaching intensive. The type of HEI does not necessarily impact how BL courses are adopted, as they follow the guidance and standards set forth by the CAA. However, it is suspected that private HEIs may be more motivated to implement a larger number of BL courses to reap the benefits of greater enrollment and ROI as they rely on tuition fees; unlike public HEIs which are governmentally funded (this was emphasized by some respondents in this study).

## 2.3 Learners' Characteristics

The makeup of the student body which are enrolled in HEIs in the UAE are a majority from varying Arab nationalities (GBC, 2023; Hopkyns, 2022) and thus the characteristics which will be discussed in this section will focus on Arab learners' characteristics as it will apply to a majority of students who are currently enrolled in HEIs.

To describe the cultural context and Arab learner characteristics, scholars within the GCC have often used Hofstede's (2001) cultural dimension framework and Hall's (1976) cultural identity framework. According to Hofstede's (2001) framework Arab countries, especially those from GCC countries such as the UAE, are classified into collectivist cultures. Collectivist cultures are those who prioritize the group and emphasize attributes such as cohesion, harmony, achievement of group goals, interdependence, and conflict avoidance. According to the same framework, this is contrary to other countries within United Kingdom, America, and Canada, who are classified as Individualistic cultures. These cultures prioritize the individual over the collective group and emphasize attributes such as individuality, independence, self-reliance, self-sufficiency, personal goals, and privacy. Additionally, according to Hall's (1976) framework, Arab countries are classified as High Context cultures. High context cultures are those who place a high value on non-verbal communication; thus, it is suggested that Arab learners depend on body language and visual cues to communicate. The same framework claims that this is contrary to low context cultures, such as America and the United Kingdom, who emphasize on verbal communication. Several authors, such as Al-Hathi (2005) had asserted Arab learners' difficulties learning within online environments, as DL has similar characteristics to low-context cultures which rely heavily on verbal communication. Hence, a number of scholars have assumed that as Arab students are classified within high context and collectivist cultures, then they (a) thrive on constant non-verbal interaction, (b) rely on intimate personal relationships, and (c) emphasize on having student-teacher relationships as they believe that their instructors' physical presence is essential to their learning. This could also explain why studies have shown that Arab students would rather take part in F2F courses rather than DL ones, as it is believed that they often prefer attending live classrooms and can engage in group

discussions with their peers (Al-Harathi, 2005; Al-Hashlamoun, 2021; Al-Issa, 2005; Wurtz, 2005).

Moreover, there are common claims that Arab students' way of learning is often a product of their cultures, beliefs, and upbringing. Arab students, especially those within GCC countries, are brought up in a manner in which they are taught to respect their elders and often only answer when being asked. Scholars suggest that this manifests within the classroom as students view their instructors as more knowledgeable than them and responsible for their learning; and thus, don't question the information that is being passed on to them nor don't often proactively take part in classroom discussions unless being asked (Al-Hashlamoun, 2021; Al-Issa, 2005; Wurtz, 2005). Hopkyns (2022) indicates that this often translates into a passive learning environment where students do not critically analyze course material and do not attempt to "uncover answers through a deductive thought process" (Hopkyns, 2022). This is claimed to be different than Western learning environments, where students are expected to engage with their instructors and critically analyze the information being passed on while also learning to be proactive, highly independent, and self-motivated (Haidet et al., 2004; Hopkyns, 2022).

Furthermore, Khan et al. (2022) suggested that Arab students often expect instructors to provide them with readily available information and clear guidance, especially in terms of assignments, which the students could memorize in order to attain high grades. This is corroborated by other scholars who insinuate that Arab students prioritize getting high grades due to societal pressures as failure is perceived to reflect negatively onto their families and their image in society (Bumbuc & Pasca, 2011; Sidani & Thornberry, 2009). Thus, authors indicate that their learning tendency of memorization comes from their past educational experiences as high school classrooms, within Arab countries, often follow a teacher centered learning environment (Khan et al., 2022; Osifo, 2019; Rasheed et al., 2021). There are common claims that a teacher centered learning environment may encourage students to learn large amounts of material by heart to get correct answers rather than focus on understanding course concepts and critically analyze the information being passed on to them (Hopkyns, 2022; Khan et al., 2022; Sidani & Thornberry, 2009). This could clarify scholars'

indications of why Arab students, who study at HEIs in the UAE, are often found to lack essential self-regulatory skills, such as independent learning and self-motivation as well as insufficient engagement and interest within classrooms (Hiasat, 2018; Pennington, 2005). Research has portrayed that these skills are essential components which students are expected and need to have to effectively learn within a higher education setting, especially within a BL context (Barnard et al., 2009; Van Laer & Elen, 2016).

## **2.4 Blended Learning in the UAE**

In 2010, the UAE government had announced a national agenda named Vision 2021, which would be followed to ensure that the UAE would become one of the best countries in the world by the end of the year 2021. The national agenda of Vision 2021 “focuses on reducing the country’s dependence on oil to 20% of its Gross Domestic Product by 2021, through the development of a diversified and flexible knowledge-based economy” (Vision 2021, 2011). It comprises of different initiatives which include “competitive knowledge economy; safe, public, and fair judiciary; cohesive society and preserved identity; sustainable environment and infrastructure; world class healthcare; and first-rate education system” that are set to be achieved by the UAE government (Vision 2021, 2011). Providing a first-class education system had been set as one of the main initiatives related to Vision 2021 as it is perceived to be one of the main components of the development of the UAE. The set goals which were aimed be achieved, as a result of this initiative, included a) Classifying the Emirati population as one of the best educated in the world, especially in terms of science and technology; b) Increasing the yearly rate of Emirati students joining HEIs in order “to match international standards”; and c) Ensuring that schools and HEIs obtain international accreditations and employ high caliber international faculty which would elevate the standards of the educational system. To meet this goal, “a complete transformation of the current education system” was made which focused “on research, technology, science, and innovation” (Vision 2021, 2011); in aim of graduating high caliber students who would be ready to lead the country into the digital economy (Vision 2021, n.d). It is important to note that further detailed information related to the specific initiatives of Vision 2021 and the steps

undertaken to accomplish every initiative are not public domain as governmental entities do not publish such information.

To accomplish the education initiative, the UAE initially focused on enhancing HEIs. Thus, the MOE had instructed that various technological tools would be used to advance the learning environment through the implementation of various software; the addition of learning management systems, e-books, and online learning platforms; improvement in telecommunications and internet connections to support new learning platforms; and the utilization of robotics (Vision 2021,n.d). The UAE government had provided all Emirati students, who were enrolled in public HEIs, with free technological devices such as MacBooks and Ipads to improve their digital literacy (Miles et al., 2021). Both UAE University and Zayed University had previously opened research centers that focus on the production of high-quality scientific research which aim to improve their current university ranking on worlds list such as the QS Ranking (Wilkins, 2010).

Additionally, within the last two decades there had been significant changes within the higher education system attempting to shift from the traditional F2F teaching experience towards a BL environment, where technology is seen as a main component in the delivery of education (Abu-Samaha & Shishakly, 2008). The implementation of BL was seen as “a progressive approach that aligns with the UAE’s vision of fostering innovation and technology integration in education” (MOE,n.d). With the inclusion of flexible online components within the existing curriculum, students are able to improve their critical thinking skills, digital literacy, and technological skills, which are all necessary for future employability within the 21<sup>st</sup> century. Thus, the emphasis on “technology-driven education aligns with the UAE’s ambition to become a knowledge-based economy and a hub for innovation” (MOE, n.d).

Hence, in 2002, the UAE had built, Hamdan Bin Mohammed eUniversity (HBMeU), the first Arab University that focuses solely on DL. The HBMeU focuses on both e-learning and BL programs with an “emphasis on total quality management principles in its courses” at all levels (Parahoo et al., 2010). The establishment of HBMeU was one of the first steps in UAE’s strive of paving the way of implementing high quality education using technology

enhanced learning within other existing HEIs. Several universities, both public and private, since then began slowly introducing a number of BL courses with the implementation of different LMSs, predominantly adopting Blackboard and Moodle (Alkaabi et al., 2016).

Within the first decade of the 2000s, numerous HEIs had begun implementing BL courses within their institutions, examples of some include American University of Sharjah, UAE University, Zayed University, Wollongong University, Middlesex University, and HCT (Mouakket & Bettayeb, 2016; Prescott, 2013; Snoussi, 2019). After the year 2010, in an attempt to follow in the footsteps of the larger HEIs, several other institutions implemented the use of either Blackboard or Moodle and introduced BL courses and postgraduate BL programs. Examples include, but are not limited to, Al Ghurair University, Ajman University, Al Ain University for Science and Technology, University of Sharjah, Emirates College, Modul Dubai University, Emirates Aviation University, University of Manchester in Dubai, Metropolitan School of Business & Management, Khalifa University, and Gulf Medical University (ECAE, n.d ; Shantakumari & Sajith, 2015; Snoussi, 2019). As Vision 2021 was the national agenda and the driving force of implementing a wide array of DL courses, there had been some research interest in studying the implementation and successfulness of DL courses, particularly focusing on students' experiences and changes in their performance.

As HEIs always aim to have an advantage, the introduction of technology in existing educational courses was a natural step forward in aiming to motivate both instructors and students to be “creative in teaching and learning respectively” (Al-Qatawneh, 2020). In 2017, UAE University opened the Center for Excellence in Teaching and Learning which focused solely on all aspects associated with the implementation of additional BL courses, at both undergraduate and postgraduate levels, such as assisting with the transformation of a traditional course into a blended one and providing faculty professional development to facilitate training and workshops to instructors to ensure high quality teaching and a smooth course transition (UAEU, n.d).

Moreover, in March 2018, a symposium for BL was held that united universities such as the UAE University, Khalifa University, and HCT, with academics from the United States,



to discuss the importance and plans related to the implementation of further BL programs within their institutions. The symposium also focused on demonstrating how instructors could create their own BL courses and the benefits that arise from using this teaching methodology (UAEU, n.d). Additionally, in 2019, Zayed University held the 4<sup>th</sup> Annual World Blended Learning Conference, which was organized by the International Association of Blended Learning. The conference included workshops and several presentations by leading experts in the field from over 18 different countries. UAE was chosen as the first middle eastern country to host the conference as several HEIs within the country had demonstrated the implementation of numerous BL courses, both undergraduate and postgraduate, across several HEIs within both the private and public sector over the past several years (Zayed University, n.d). While it can now be seen that numerous HEIs have implemented BL within numerous undergraduate and postgraduate programs, academics believe that others have stuck to the traditional F2F learning environment “due to the absence of corresponding reforms in evaluation strategies” (Tamim, 2018).

The UAE has most recently announced a new initiative named “ UAE Centennial 2071” which focuses on four main aspects: education, economy, governmental development, and community cohesion” (UAE Cabinet, 2023) with the main goal of ensuring that the UAE is the best country in the world within the next five decades. The leaders of the UAE suggested that the new set goal would provide future generations an opportunity “to live happier lives in a better environment with bigger opportunities” (UAE Cabinet, 2023). Thus, focusing on human capital is essential to achieve such a goal by preparing the “future generations with new tools and knowledge as well as different skill sets that enable them to succeed in a future world which will be very different from today’s”(UAE Cabinet, 2023). Hence, the education component is one of the main aspects of this goal in an attempt for the UAE to be leaders in the education sector within the MENA region and competing with educational services within North America and Europe. In order to do so, significant educational development will continuously be made in the future in both schools and HEIs with a focus on engineering and technology.

Therefore, the implementation of various DL programs, especially BL ones, will soon be the new normal within the UAE (UAE Cabinet, 2023). Hence, UAE’s focus on the

education sector; by investing billions of dollars within technological infrastructure, employing high caliber international faculty, and encouraging on-going collaboration among HEIs in the UAE and internationally (Miles et al., 2021); is done in an aim of “fostering a culture of continuous improvement and innovation in higher education” (MOE,n.d). The inclusion of BL also “aligns with the UAE’s vision of building a knowledge-based economy” (MOE,n.d). Thus, it is clear that HEIs have embraced the inclusion of BL within their existing curriculums as a result of its ability of improving students’ educational experiences as well as its ability of enhancing students’ skills, which are needed for future employability and success within tomorrow’s digital age.

The UAE government’s position of implementing a wide array of BL courses across the education sector and aiming to normalize technology enhanced learning within the future, showcases the appropriateness of focusing on the UAE context. However, a great deal of good quality BL research, which looks at various perspectives, is still needed to mirror the current and future advancements within the education sector. More so, as the UAE focuses on implementing a wide array of BL courses, programs, as well as diplomas within HEIs, research which focuses on BL continuity is imperative. Thus, this research study can provide significant academic contributions by shedding light on instructors’ BL experiences and showcasing not only the benefits of such implementation but also uncovering cultural challenges; as well as focusing on BL continuity by uncovering instructors’ BL continuity decisions and the perceived principal critical factors which impact those decisions.

## **2.5 Effect of Covid-19 on UAE’s Higher Education Institutions**

This study’s data was collected during the second half of the Covid-19 pandemic, where all courses within varying HEIs were taught using a BL approach; and thus, understanding the impact which Covid-19 had on HEIs during this period of time and how it may have influenced the implementation of BL is significant in this case.

As the first Covid-19 cases in the UAE were confirmed in January 2020, a series of unexpected events had followed as the number of cases began to quickly rise. As a result, HEIs had to close as further safety measures were implemented and the MOE had announced

that all courses would be taken fully online until the end of the academic year. In order to aid in the transition of teaching modes, from traditional F2F to e-learning, the MOE had formed a committee of educational advisors to help HEIs with the logistics of the implementation process, as not all universities were prepared for this quick execution. However, some of the larger HEIs within the UAE were in fact more equipped for such a change and had done so seamlessly as they had been already implementing technology and DL courses within their existing educational system. However, in light of the mixed reviews received from varying HEIs regarding their experiences with e-learning (CNBC, n.d) and in line with the constant changes related to safety precautions, the MOE formally announced in late June that the e-learning programs would come to an end as a new form of BL was set to pave the way as the new educational approach starting the next academic year. Many HEIs were pleased with the decision and believed that this accelerated implementation of BL courses was a positive adoption to the existing educational system within the UAE (MSN News, n.d).

However, the type of BL courses which was adopted was somewhat different than what HEIs had originally implemented before the pandemic period (this was emphasized by some respondents in this study). Beforehand, HEIs had adopted a slow BL implementation process where a few courses within various departments were transformed and the majority of such BL courses were at a postgraduate level. Instructors were also given the option to teach the newly adopted BL courses, and those who chose to do so, were often provided with time release the semester before to prepare and re-create digital materials. This was important to ensure that the learning environment and quality of teaching were not negatively impacted as a result of the changes in teaching methodology. As well, most assessments were conducted F2F with some quizzes conducted virtually. Additionally, instructors did not have the opportunity to customize the blend type which their courses followed but rather senior managers would choose a generic blend type for different course subjects. For example, most STEM courses were split in a manner where all theoretical classes were taken online and all practical ones were on campus; while non -STEM courses, followed a 60/40 split approach, with the majority being taken online. As the implementation of BL was still in its beginning stages, insufficient research was conducted regarding which type of blend would be most suitable for different types of courses and would yield the most effective outcome. On the

other hand, the BL courses taught during the covid-19 pandemic period, which is when I had collected my data, were somewhat different. During this time, most BL courses followed a type of blend which was heavily online, due to safety precautions set by the government, and most assessments, except for the finals, were taken virtually. In both cases, instructors were not provided with the opportunity to choose a specific blend type which they felt would suit their course subjects. Additionally, in both situations, senior managers had joined different class sections together during the online sessions which resulted in a significant increase in class sizes. It is also important to note that the MOE had set a strict rule, once BL courses were implemented, that all online classes had to be recorded (this was emphasized by some respondents in this study).

Ultimately, the Covid-19 pandemic had sped up the UAE's initial goals of implementing a wide array of DL programs, both BL and e-learning, across all levels of the education sector. The UAE's Ministry of Education had previously announced, in 2017, an initiative called "Transformation to Smart Education" which aimed to implement technology within the existing traditional educational programs across all schools and HEIs (MOE, n.d). The implementation of blended education within both public and private schools as well as varying HEIs in Dubai, Abu Dhabi, and Sharjah had been completed in order to achieve the Vision 2021 plan (KPMG, n.d; MOE, n.d; Vision 2021, 2011). Thus, several HEIs began implementing more BL programs and diplomas. Examples of such include the University of Birmingham Dubai who had opened their new campus named the "Smart Campus" which centers around technology and providing education which focuses on future technological needs such as artificial intelligence. Their new campus also focuses on implementing various BL programs for the future to meet the vision of the UAE's government for the next 50 years of being the leaders of education within the entire MENA region (Wamda,2021). The University of Wollongong Dubai had also recently opened their new "Campus of the Future" which focuses on innovative technologies which can support varying BL and DL programs and now provides more than 40 different degrees which are expected to include varying BL courses (OpenGov, 2022; UOWD, n.d). Amity University has also announced that they would offer a wide array of BL diplomas, some include artificial intelligence, cybersecurity, and digital marketing (Amity, n.d). Additionally, the UAE University, working with the

MOE and Al Ghurair Foundation for Education, had also announced the development of different accredited DL programs, which combine BL and e-learning courses, which are set to be ready by the end of the year 2023 (Zawya, n.d). Most recently, Sheikh Sultan bin Muhammed Al Qasimi, ruler of the emirate of Sharjah, had announced that any working student would be automatically provided with BL course options during their studies at the University of Sharjah. Sheikh Sultan bin Muhammed Al Qasimi has also called for all other HEIs within the emirate of Sharjah to follow in such footsteps and provide working students with several BL options. This decision was said to not only help such students complete their studies but also allow them to contribute to the working force in the future which would provide them with better lives and future opportunities (National,2023).

Moreover, in line with UAE's ambition of being the leader of advancement in education in the MENA region, the Ministry of Education had announced an investment worth \$7.1 billion in the education sector over the next several years to support several DL initiatives (BettMEA, n.d; OxfordBusinessGroup, n.d) "as tools to improve education delivery in a market that is expected to expand by 60% by 2023" (OxfordBusinessGroup n.d). Additionally, in a series of steps taken to enhance the education sector with technological advancements, His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE, and Ruler of Dubai, had recently confirmed that the UAE would also invest in cloud technology, as in the near future textbooks would be replaced with mobile applications on the cloud to provide "immersive learning" and collaboration among students (BettMEA, n.d).

Furthermore, Dubai had announced that they will host the International Conference on Blended Learning Models in March 2023 and 2024; which aims to join scientists and researchers alike to discuss all aspects related to BL models and future innovations within the BL field (WASET, n.d). Hence, as many previous and future initiatives have been announced by the UAE, it is clear what many educators had predicted once the pandemic had begun, that BL is here to stay and that it will become the new normal in the education sector within the UAE, as the method of providing education to students of all ages will never return to what it was before the global pandemic (KPMG, n.d).

As previously mentioned in section 1.1, it was my motivation to study cases where instructors have a choice of whether or not to continue to teach BL courses in the future as opposed to situations where they are forced to. As a variety of courses are still taught using the traditional F2F format and others using BL, senior managers do in fact provide instructors with a choice of whether they would like to teach their courses using BL approaches. However, it is suspected that instructors employed within private HEIs may be more encouraged, by senior managers, to teach BL courses in order for their institution to gain greater profit, unlike public HEIs which are governmentally funded and do not have similar concerns. Nonetheless, instructors, who took part in this study, who teach BL courses within public and private HEIs, had confirmed their ability to choose whether or not they would like to continue to teach BL courses in the future. Furthermore, a great deal of research has opted to study forced implementation of BL courses as opposed to situations where instructors are given a choice (Gomez et al., 2023; Rachman et al., 2021; Ramli et al., 2022; Van Der Merwe & Pedro, 2022) and thus, focusing on the latter can help contribute to the existing body of literature, especially within the UAE.

## **2.6 Chapter Summary**

The United Arab Emirates has always focused on providing first class education not only at a primary and secondary level but also within HEIs (Wren, 2021). The growth of such institutions can be seen with the establishment of the UAE's first university in 1977 to today's flood of institutions throughout the country. Presently, there are three public governmental institutions, 50 private locally owned HEIs, and numerous topnotch international universities that have branches within the UAE. As the UAE has now been considered an educational hub within the MENA region (Wilkins, 2010), the government remains determined in accomplishing greater achievements by focusing on adapting to the changing world through the implementation of technology within their education systems. Even though the implementation of BL throughout HEIs is one of the many initiatives which can be found in Vision 2021 (Vision 2021, 2011), a change in events due to the COVID-19

pandemic had compelled such institutions to adopt numerous e-learning following BL courses in an extremely quick manner (CNBC, n.d, MSN News, n.d).

Thus, due to such changes, the specific critical factors related to BL courses in the UAE must be examined especially from an instructor's perspective, as most often instructors are responsible for re-structuring and implementing their BL courses (Keating, 2015). Hence, also looking into instructors' perspectives related to teaching and quality of learning, as well as current or previous obstacles which they may have encountered with this adaptation is essential for the continuity of BL courses.

## **Chapter 3: Literature Review**

This chapter will demonstrate how the literature review was conducted and present the benefits and challenges of BL. This chapter will also describe the critical factors which impact the effectiveness of a BL course and showcase research related to BL continuity. A summary of the chapter will also be provided.

### **3.1 Conducting the Literature Review**

Due to my own personal background, education, and work experience, as previously outlined in section 1.4, I had decided early on regarding some of the major components which I had wanted to focus on and gain an overall understanding about. As I had initially intended that the focus of this research would encompass BL continuity decisions, I had decided that it was necessary to gather literature regarding BL. I started looking at literature related BL in general, however it was too broad and there were varying aspects related to BL which I did not need for this research thesis such as for example, the adopted BL frameworks. However, in doing so, I did come across research related to the critical factors of BL which had piqued my interest to learn more. At that point, I had decided to later re-visit the literature related to such to learn more and possibly find shortcomings within the existing research as this research thesis aims to contribute to the literature.

I had also decided to look at research related to BL within the MENA region specifically, as this research thesis focuses on the UAE context. Yet, upon discussing with my supervisor, I had chosen to not include it within this chapter, as the literature on such predominantly focused on students experiences and performance outcomes, which was not what I needed for the purpose of this thesis. As the MENA studies tended to primarily highlight the impacts of BL implementation by focusing on student performance, I decided to broaden the focus to global studies that focused more appropriately on presenting the various benefits and challenges of BL implementation from various perspectives. Moreover, I also briefly examined literature related to DL within HEIs, however, there was too much information and many scholars had used various terms such as e-learning, BL, and DL



synonymously. However, the specific literature related to BL in HEIs within GCC countries were insufficient for me to report on and thus, I decided to later not include it within my literature review. As the critical factors of BL was one aspect which was most interesting to me, I discussed this concept with my supervisor in terms of the possibility of including such within my research thesis. This had fueled my future steps to look at how such critical factors may impact continuity decisions. It is important to note that regardless of the fact that this study is pertaining to institutions in the UAE, all research papers reviewed were in the English language. As previously outlined in section 2.2.2, all HEIs follow CAA regulations and thus, they all teach courses in the English language and it is usual for instructors to publish academic papers in the English language. Therefore, based on my own background in this area, I decided that there was no need to look into research papers within other languages.

The literature review was conducted through an iterative process and within various stages as this research looks at different components such as BL courses in HEIs in the UAE, the critical factors which impact BL courses effectiveness, and the continuity of BL courses. Therefore, to begin the literature review, I used popular academic search engines such as Google Scholar and Scopus as well as Lancaster University's library. I searched for technology-based research in general to gain an overall understanding and then focused on technology-based research within HEIs. This was necessary to understand the similarities and differences between different DL programs as well as identify the current shortcomings in literature. My initial search had led me to find a robust amount of research related to e-learning and BL courses within HEIs in North America and Europe. However, as the focus of this research lies within the UAE, I began narrowing my search to those published particularly within this country. I used a combination of the following search terms such as, but not limited to,: "distance learning courses", "e-learning courses", "blended learning courses", "higher education", "universities", "United Arab Emirates", "Dubai", "Abu Dhabi", "Ras Al Khaimah" and "Sharjah". This search had helped me identify an important shortcoming within the existing literature. There was an obvious lack of research in the UAE which studied BL courses unlike the majority which focused on the concept of e-learning

instead. Thus, as the available research found was extremely limited, I had to expand my search to include other GCC countries.

My own background had made me aware of the similarities between the learning environment and the overall culture within these countries, thus, looking at such literature within the GCC region was appropriate for my research needs. I had ensured that most of my literature would be gathered from peer-reviewed journals, however, due to the limited amount of research related to BL within GCC countries, I also investigated research published within conferences, books, and related theses. Once this phase was completed, I was able to identify certain shortcomings in research which “fueled” my next steps. I further specified my search to “instructors’ perspectives of BL courses in HEIs” as this is one of the components of my research. I later narrowed my specific search to studies within GCC countries and particularly the UAE. In doing so, it helped me identify another shortcoming of the available research. The majority of BL research does focus on the students’ perspective and pays little attention to that of the instructor. This was not only evident within the literature in the UAE but within varying other countries around the world. Thus, this evident shortcoming in the available research did help me solidify my decision to focus on the instructors’ perspective. Additionally, to identify other shortcomings in literature, I had ensured that during every stage of collecting research I read studies which looked at the specific area in general as well as the particular context which is necessary for this study. For example, in terms of BL’s advantages and disadvantages, I had ensured to read as much literature on the subject in general and I then looked at the literature which focuses on such within the GCC. In doing so, I was able to identify various shortcomings such as the predominant focus on students experiences and not that of instructors’ as well as the lack of research which showcased varying cultural benefits and challenges.

I subsequently looked for the critical factors of BL, as this is what I focused this research on. However, as I began looking for research related to such, I had come across research which identified similar critical factors using the terms “e-learning” and “distance learning”. Thus, it was necessary to widen my search to identify varying critical factors related to DL in general which I could later narrow down to meet the purpose of my research.

In doing so, I was able to identify further shortcomings in the literature. For example, the current identified critical factors do not consider the changes in the learning environment and are presented as if they are all applicable within varying cultural contexts. Additionally, in order to analyze the gathered literature, I used Microsoft Excel to compile a list of critical factors which related to various components such as students, instructors, technology, course, and organization, where every factor was defined and corresponding research showcasing the effects of these factors on specific effectiveness measures were presented. I later narrowed down the list of factors making sure to include the various components, however, I excluded certain factors such as certain technical ones related to system implementation and specific organizational factors related to funding and organizational readiness as it does not relate to the decision making of instructors and thus, would be outside the scope of this research. I did ensure that prior to designing my questionnaire, I ran another search to make sure if any more related factors could be uncovered. This search concluded in me finding three more critical factors of BL, which I then added to the compiled list. This two-step process did in fact make me confident that I had undergone a rigorous literature review and had uncovered the most prominent critical factors of BL courses from varying dimensions, which was essential for my research.

The last part of my search focused on the continuity of BL courses. I initially conducted searches related to “continuity of distance learning”, continuity of e-learning” and “continuity of BL”. I did focus on the concept of BL, however due to the shortcomings in research related to the UAE, I had to expand my search to incorporate the other technology enhanced learning terms. This allowed me to gain an overall understanding of how continuity is defined within technology-based research. I later searched for more research which studied necessary components which are needed to achieve continuity of BL within a higher education setting. This required a great deal of time as continuity of BL is not commonly researched among scholars, and thus, I had incorporated DL and e-learning continuity research to gain an overall understanding and later narrow down which research publications I would use for my literature review. Moreover, by incorporating “continuity of e-learning” as another search term, I did find a vast majority of published research which looked at specific factors and effectiveness measures which impact the continuity of e-learning

courses. I did in fact compile a list of all research papers and categorized the similar factors and effectiveness measures which were found to impact BL continuity. To further identify other shortcomings in the literature, I also ensured that I reviewed research which looked at a different focus than what was needed for this study. For instance, I reviewed continuous intention to use research in respect to various perspectives such as that of the students, the institutions, and the instructors. In doing so, I was able to identify the lack of BL continuity research which focuses on instructors' perspectives as well as the majority of research which fails to study various critical factors, other than those related to the system, which impact continuity decisions. This process was particularly important as my research provides an original contribution to knowledge in respect to instructors' continuity decisions and the critical factors which impact those decisions.

In terms of analyzing the gathered research, I followed a similar process throughout the various literature review stages. Once I compiled a large amount of research papers, I read through the papers' abstracts to initially narrow them down by checking if it would fulfil a specific purpose. I did ensure that when analyzing the research papers, I looked over the specific definitions being used and what types of courses the researchers were testing as some published research papers did in fact use the terms DL, e-learning, online learning, and BL interchangeably. Once, I finalized this stage, I read every research paper and categorized it based on its purpose. To do so, I used an excel sheet to correspond every research paper to a specific subcategory which I split my literature review into.

Once I had reviewed the literature described above, I began drafting this study's research questions, as they address common shortcomings which I had found during my literature review process. Further information related to how my research questions were designed to target some of the shortcomings in the literature can be found in section 3.6. I had written a draft of my literature review which had helped me to refine my research questions. At that point I had a large number of themes, yet I began filtering through them. I often filtered specific papers by reviewing their abstracts and chose to prioritize those which focused on the instructors' perspectives. As a result of my analysis, this literature review

chapter has been split into the following main sections: (a) benefits and limitations of BL, (b) critical factors of BL, (c) continuous intention to use, and (d) continuity of BL.

I do acknowledge that my research study could have also included other related components such as research related to adopted BL frameworks, BL outcomes, and instructors' decisions. However, I had chosen to not include those due to the lack of relevant literature within the GCC context especially within the UAE, and incorporating such type of literature in a general manner outside the contextual scope which is studied in this thesis could have taken away from the purpose which this research study aims to accomplish. Thus, I believe that the areas of literature which are discussed in the following sections are sufficient to portray the original academic contribution which I wish to accomplish.

### **3.2 Benefits and Limitations of Blended Learning**

In this section, I review literature related to the benefits and limitations of BL. This literature focuses on showcasing how the implementation of an online component to an existing traditional one can both improve as well as impair the overall learning environment, students' overall experiences as well as instructors. Yet I highlight that this literature has shortcomings related to insufficient identification of benefits and challenges from instructors' perspectives, particularly as a result of actual teaching, as well as failing to consider varying cultural contexts.

HEIs today are faced with several learning methods to choose from i.e. traditional F2F learning, BL, and e-learning, with each having their own set of benefits and limitations. Osguthorpe and Graham (2003) identified six main motives for choosing BL which include: “(1) pedagogical richness, (2) access to knowledge, (3) social interaction, (4) personal agency, (5) cost effectiveness, and (6) ease of revision” (Osguthorpe & Graham, 2003). Graham et al. (2003) also identified the increase in flexibility as an additional reason for choosing BL over other learning methods (Graham et al., 2003). BL has the ability of providing such numerous advantages simultaneously, as it combines both learning methodologies together, and is capable of reducing the limitations faced with the use of either learning methodology (Broadbent, 2017). King (2001) had suggested that “the face-to-face

classroom integration of online conferencing offers a distinct advantage to distance education delivery in that the two formats-online and in person-can be used in a complementary manner to allow fuller expression, development, and learning” (King, 2001, p. 12). In light of this, I will elaborate on the advantages of adopting BL and highlight how BL can solve the limitations faced by using other learning methods and ultimately reap the benefits of both.

One argument commonly made in the literature is that one of the most common advantages discussed regarding online learning and BL is their ability to provide flexibility for both students and instructors. Students have the ability to access course materials at their own convenience and, in some cases, are not confined to retrieving such information from in class course material distribution (Baumann et al., 2019; Hrastinski, 2019; Jhawar & Shrivasaava, 2020; Medina, 2018; Rasheed et al., 2020; Warren et al., 2020). It has been suggested that this would be especially beneficial for non-native speaking students as they are able to frequently access their course materials to aid in revision for exams and preparation for class projects (Walsh & Rísquez, 2020). Scholars have claimed that instructors may also benefit from the added flexibility by enjoying a more adaptable schedule, spending less time commuting and teaching classes, and having greater flexibility than before to structure their course pattern (Adarsh et al., 2021; Curtis & Lawson, 2001; Dziuban et al., 2004; Graham, 2004; Harasim et al., 1995; Harding et al., 2005; Henri, 1992; Sharpe et al, 2006). Scholars have also indicated that other common benefits of incorporating online learning include access to a wide range of information (Bonk et al., 2002; Graham, 2006; Osguthorpe & Graham, 2003; Whitelock & Jelf, 2003; Wu et al., 2010;); pedagogical richness (Adarsh et al., 2021; Graham, 2006; Osguthorpe & Graham, 2003; Swan, 2002; Whitelock & Jelf, 2003); and the promotion of independent learning (Cleveland-Innes & Campbell, 2012; Garnham & Kaleta, 2002).

Another assumption in the literature is that the advantage of online learning, which is also shared with BL, stems from the incorporation of online message boards or web chats. Authors believe that this can allow students to actively practice conversations with others (Harasim, 1989) as well as encourage self-reflective discussions (Valacich et al., 1994). It is also commonly suggested that it promotes mutual learning (Harasim, 1989); allows for the

creation of knowledge (Gay et al., 1999) by exposing students to a range of different perspectives and topics, which may have not been achieved through F2F discussion (Prain & Lyons, 2000); and encourages interactive learning (Henri, 1992; Vrasidas & McIssac, 1999; Warschauer, 1997). Furthermore, scholars claim that similar to online learning situations, BL has the ability of reducing operation costs compared to traditional F2F learning, especially with an increased number of enrolled students (Harding et al., 2005; Osguthorpe & Graham, 2003; Vaughan, 2006; Woltering et al., 2009; Wu et al., 2010). However, pure online learning situations can decrease this cost much more significantly in comparison to BL, as BL courses still incorporate traditional F2F classes.

Nonetheless, as online learning has numerous benefits it still has trivial disadvantages which may be avoided with the implementation of BL instead. It has been suggested in the literature that one of the main limitations of online learning relates to students' inability of having a great sense of belonging due to the lack of constant F2F communication with peers or instructors (Chyr et al., 2017; Hara & Kling, 2000; Kinshuk & Yang, 2003; Laurillard, 1993; Lightner & Lightner-Laws, 2016; Wu et al., 2008; Yang & Liu, 2007). On the other hand, traditional F2F lectures allow students to develop such relationships (Hasebrook et al., 2003). Thus, as BL also uses traditional lectures, it has provided students with the needed social interaction to ensure that they experience a sense of belonging and community (Osguthorpe & Graham, 2003; Rovai & Jordan, 2004).

Another common argument in the literature is that a crucial limitation of online learning relates to the inability of promoting student motivation (Lim & Kim, 2003). Wlodkowski (1985) defined motivation as "the learning process as a force that determines the direction to be taken and the choice of a particular attitude to learning" (Wlodkowski, 1985, p. 819). Lopez-Perez et al. (2011) claim that motivation is an extremely important factor which affects students' attitudes, their ability to learn, and ultimately achieving good grades. On the other hand, scholars suggest that the level of student motivation increases with the use of BL, as it allows for greater interaction from the traditional lectures. This much needed interaction between colleagues and instructors has proven to be an important factor that increases the level of motivation and allows students to have positive attitudes which may help with

improving students' grades (Baumann et al., 2019; Donnelly, 2010; Jhawar & Shrivastava, 2020; Jiménez & Jiménez 2020; Rasheed et al., 2020; Schechter et al., 2017; Woltering et al., 2009). Furthermore, it is believed that online learning on its own cannot teach students the necessary soft skills, which include interpersonal, leadership, and communication skills, that are often taught at a college level and ultimately contribute to later gaining employability (Hameed et al., 2008). Scholars claim that this shortcoming in online learning may be avoided by using BL (Hadiyanto et al., 2020; Sulisworo et al., 2016) as students still attend traditional lectures and are capable of learning such soft skills through their interaction with their peers and instructors.

Moreover, another assumption in the literature is that an additional limitation of online learning, which may be somewhat resolved by BL, concerns the rate of student withdrawal. Research has shown that e-learning courses tend to have higher withdrawal rates (Carr, 2000; Kemery & Aggarwal, 2000) compared to BL courses where this rate tended to fall significantly (Dziuban et al., 2005; López-Pérez et al., 2011). This difference had been discussed by Levine & Wake's (2000) study which suggested that the lower dropout rates resulted from the added personal contact within F2F teaching classes.

Furthermore, it is suggested in the literature that BL has its own unique advantages as a result of combining two different learning methods together. BL has reported to further "optimize seat time" (Kose, 2010) and provide students with a deeper understanding of the course material (Chen & Jones, 2007). Scholars have claimed that this is achievable, as in most BL courses, students are given the opportunity to look over and study course material prior to certain classes, and thus instructors use class time to answer questions or explain course material that has not been understood by students. Therefore, it is believed that instructors can use the allocated class time to focus on further explaining specific concepts rather than traditionally skimming through course material to ensure that all subject materials have been explained (Chen & Jones, 2007; Kose, 2010; Twigg, 2003). Hence, students can greatly benefit from the time spent in F2F courses.



Scholars commonly claim that other advantages of BL include increasing the level of student engagement (Anthonysamy, 2020; Dehler & Parras-Hernandez, 1998; Jamaludin & Osman, 2014; Jhawar & Shrivasaava, 2020; Ruberg et al., 1996; Su et al., 2023; Warschauer, 1997); allowing students to acquire the necessary self-regulatory skills, which are needed to succeed within a BL environment (Cleveland-Innes & Campbell, 2012; Crawford et al., 1998; Gilboy et al., 2015; Ginns et al., 2007; Lai et al., 2018; Wang et al., 2009); enabling a greater capability for reflection (Babu, 2017), and allowing them to have a more positive perception in relation to the way the course is taught (Cooner, 2010; Crawford et al., 1998; Ginns et al., 2007; Huon et al., 2007). In turn, it is believed that these benefits are able to change students' learning experiences by attracting more students and maintaining their attention and interest (Davis & Fill, 2007; Jamaludin & Osman, 2014; Jhawar & Shrivasaava, 2020; Kose, 2010). Moreover, a number of scholars assume that BL's characteristics allows students with varying personalities and learning styles to benefit and learn effectively. As students who are introverts would prefer DL while students who are extroverts would prefer F2F learning (Harrison, 2003; Kose, 2010; Marsh, 2002). Thus, as BL courses combine both methodologies, a large portion of students would feel comfortable and are able to effectively learn given the combination of the learning environments.

Another common suggestion in the literature is that an important advantage of BL is its capacity for supporting various different learning modules, such as constructivist, simulative, systemic, associated, and situated learning (Sharpe et al., 2006). BL also increases the level of different strategies used such as learner centered, active learning, and peer to peer learning (Collis et al., 2003; Jhawar & Shrivasaava, 2020; Morgan, 2002; Rasheed et al., 2021). More importantly, scholars have argued that one of BL's most important advantages is its potential to provide a greater learning experience for students as it balances between flexible learning opportunities and experiences with human interaction (Dziuban et al., 2005; Reynolds & Greiner, 2005). Thus, BL allows students a more effective learning experience as it combines different features of well-established and used learning techniques (Williams, 2003). This more effective educational environment is achieved as students can communicate with classmates and instructors while still reaping all the benefits provided from online learning technologies.

Although BL has numerous reported advantages; no learning methodology is without its limitations. Scholars have claimed that an important challenge related to the adoption of BL, which can be commonly found in e-learning, relates to problems associated with computers and internet access (Bonk et al., 2002; Dellanna et al., 2000; Klein & Ware, 2003; Miller et al., 2000; Selwyn & Gorard, 2003). It is believed that this can be a result of either students' or instructors' personal abilities and attitudes towards the use of technology in education (Bonk et al., 2002; Jhavar & Shrivastava, 2020; Lightner & Lightner-Laws, 2016) or technical problems such as speed of the internet or courses online that require high technical specifications (Klein et al., 2003). Dellanna et al. (2000) claim that for instructors to be capable of delivering the course or uploading material and for students to take the course and gain access to the online material; they both must demonstrate proficiency with using laptops or computers and using the internet. Additionally, it is suggested in the literature that instructors commonly report technological challenges related to learning how to use the LMS or any other supporting software used to aid with their BL courses (Rasheed et al., 2020). Authors indicate that such difficulties often stem from their own resistance (Bower, 2015; Hung & Chou, 2015) or the time and effort required to do so (Lightner & Lightner-Laws, 2016) which has repeatedly led to time management difficulties (Lai et al., 2016). Leo & Puzio (2016) had reported that instructors often express their concerns with teaching using technology and difficulties in dealing with technological problems which they may not know how to personally resolve. This is believed to be a result of instructors' inability of receiving timely and adequate IT support when needed (Ocak, 2011).

Moreover, scholars claim that instructors have often reported obstacles with designing their BL courses (Lightner & Lightner-Laws, 2016) and creating online course content due to their inexperience (Maycock et al., 2018). This inexperience hinders their abilities of creating good quality online video content (Akçayır & Akçayır, 2018) which takes more time and effort (Leo & Puzio, 2016). Thus, it is necessary for an introductory technical course to be delivered to both instructors and students; and on demand technical support should be made readily available (Miller et al., 2000; Selwyn & Gorard, 2003). However, institutions have faced their own challenges with providing adequate training to both

instructors and students (Cuesta Medina, 2018) as senior managers are misled in thinking that not a great deal of training is required for BL courses as it still incorporates face to face teaching components (Rasheed, 2020). Rasheed (2020) suggest that institutions have also been responsible for not providing adequate continuous professional development to instructors due to the costs involved, which is problematic as it is essential in ensuring instructors proficiently teach their students in an online environment. Moreover, another argument commonly made in literature is that an additional disadvantage of BL relates to the high startup cost due to the acquisition of technology and software needed to sustain the online learning component of the courses (Akçayır & Akçayır, 2018; Clarey, 2007; Dehghanzadeh & Jafaraghaee, 2018; Harun, 2002; Huynh et al., 2003; Weller, 2004). Thus, it is vital that when institutions decide to implement BL, officials within their IT department are informed at the earliest to ensure that the technology being bought is of high quality, to avoid loss of funds and further requirement of more technology (Stansfield et al., 2009).

Consequently, it is suggested in literature that another challenge of BL concerns the requirement of students having self-regulatory skills in order to thrive and succeed in a BL environment (Greene et al., 2018; Kizilcec et al., 2017; Phillips et al., 2015; Rasheed et al., 2020; Rasheed et al., 2021; Zhu et al., 2016). A few scholars have claimed how this in itself is problematic as not all students who enroll in BL courses attain such necessary skills which in turn can hinder their own learning progress (Çakiroglu & Öztürk, 2017; Chuang et al., 2018; Lightner & Lightner-Laws, 2016). It has also been reported that students who enroll in BL courses struggle with the inability of managing their time (Broadbent, 2017; Lai et al., 2016; Zacharis, 2015) and have been witnessed to procrastinate often (Al-Jarrah et al., 2018; Maycock et al., 2018; Sun et al., 2017). Additionally, the lack of student engagement and participation has been reported by some as a possible challenge of BL (Costa et al., 2012; Lai et al., 2016; Leite et al., 2013).

Furthermore, research has found that even though BL can be a positive experience for many there are still mixed results regarding student satisfaction. Students have still expressed their dissatisfaction with taking BL courses mainly due to poorly designed online interfaces (Hughes, 2007; So & Brush, 2008). Scholars claim that this dissatisfaction can be explained

by the lack of competent “web authors” (Klein et al., 2003) and instructors who find difficulties in designing online learning materials that are engaging enough for students (Klein et al., 2003; Maycock et al., 2018; Raza & Brown, 2021). Therefore, course instructors need to find ways to ensure that their course is both lively and interesting when students take the online portion of the BL course.

Lastly, as BL courses have been implemented within varying cultural contexts, a limited number of scholars have attempted to portray cultural challenges related to its implementation within varying GCC countries. It has been suggested in the literature that Arab students most often do not use video or audio functions during online classes, due to feelings of self-consciousness and anxiety (Abou Naaj et al., 2012; Khan et al., 2022; Mahadin & Hallak, 2019; Rajab & Soheib, 2021). Al-Mahadin & Hallak (2021) claim that this may be problematic for instructors who teach online and may cause difficulties in building relationships with their students. Another argument in the literature, which has been previously discussed in section 2.3, is that Arab students are believed to lack the necessary self-regulatory skills and sufficient engagement and interest in the classroom (Hiasat, 2018; Pennington, 2005). Osif (2019) also claims that students within the UAE are often demotivated when taking online classes as a result of the lack of self-regulatory skills, in particular self-motivation. Thus, scholars believe that this may be problematic particularly within a BL setting (Al-Harhi, 2005; Al-Hashlamoun, 2021; Khan et al., 2022), as such skills and sufficient student engagement are seen as necessary for successful learning within an online environment (Barnard et al., 2009; Van Laer & Elen, 2016).

In this section I have analyzed the literature related to the benefits and challenges of BL. My analysis has highlighted that the major shortcomings in this literature are that the majority of the current research tends to portray BL’s advantages and disadvantages from the perspective of the inclusion of an online component within an existing traditional one. Specifically, how the incorporation of online components may positively or negatively impact students or instructors in terms of satisfaction, teaching and learning, as well as performance. Rather than examine how the combination of both physical and virtual

components may impact the overall learning environment or how the inclusion of a traditional learning environment may improve or impair a distance one.

More importantly, there is insufficient research which focuses on the benefits and challenges of BL from an instructors' perspective specifically and as a result of actual teaching (Stevensen et al., 2022). Rather the benefits and challenges of BL, which are found in a majority of research, often focus on the students' perspective and how the incorporation of BL has impacted their learning experiences and performance. This could be a result of scholars focus on studying BL usage and acceptance from the students' perspective with lesser interest on understanding the impact of teaching BL courses on instructors' teaching experiences (Çardak & Selvi, 2016; Mozelius & Rydell, 2017; Porter et al., 2016). More so, the benefits and challenges of BL portrayed in research fail to consider cultural contexts, specifically within the Arab region. Therefore, the existing body of literature is limited in showcasing varying cultural benefits and challenges of BL, which is necessary for the improvement of future BL implementation (Sheerah & Goodwyn, 2016).

These shortcomings seem particularly relevant in the context of my own research, as I focus on the UAE case. Thus, the instructors' experiences may be a result of the specific culture where they teach their BL courses in as well as the students which they teach, which are majorly from Arab backgrounds. Therefore, in this research, I will provide an in-depth examination into instructors' experiences with their BL courses to gain further understanding of the perceived advantages and disadvantages of teaching using BL, as a result of actual teaching experiences. This research will also uncover varying cultural challenges, which are not commonly discussed in the current body of literature.

### **3.3 Critical Factors of Blended Learning**

In this section, I review literature related to the critical factors of BL. I outline that this literature focuses on identifying every critical factor, its definition, and how it may impact BL effectiveness. Yet I highlight that this literature has shortcomings concerning how research presents the critical factors as if they are all applicable within all cultural contexts.

This literature also does not consider changes within the learning environment, as the critical factors presented over the past 20 years are similar.

When applying BL courses to HEIs, an important aspect which must be closely examined is the effectiveness of the education delivery mode through a number of indicators or generally named critical factors. Specifically, which critical factors directly affect the development and continuation of such programs.

A common assumption made in the literature is that the effectiveness of BL courses can be determined by examining the most common critical factors and how they in turn affect four effectiveness constructs: perceived ease of use, perceived usefulness, system use, and user satisfaction. Perceived Ease of Use is defined as “the degree to which a person believes that using a particular system would be free of effort” (Davis 1989, p. 320) while Perceived Usefulness can be defined as “the degree to which a person believes that using a particular system would enhance his or her job performance” (Davis 1989, p. 320). Additionally, System Use refers to the users’ actual use of the system provided. Actual Use of the system is defined as “a behavioral response, measured by the individual’s action” (Davis, 1989). Furthermore, User Satisfaction can be defined in several ways. Student satisfaction is defined as “students’ perceived experience and their perceived value of the education they have received at university” (Austin, 1993). While, instructor satisfaction, in the context of this study, can be defined as “the perception that teaching in the online environment is effective and professionally beneficial” (Bolliger & Wasilik, 2009).

To identify the critical factors of a BL course, an extensive review over the past 20 years was conducted. This was necessary in order to gain an overall understanding of the critical factors and pinpoint the most prominent ones. However, as previously mentioned in section 3.1, technical factors, which focus on the specific system implementation, and factors related to senior management, such as funding and planning, were not included. The identified critical factors will be categorized into the following independent constructs: learner’s characteristics, instructor’s characteristics, learning management system characteristics, course characteristics, and organizational characteristics; and an in-depth

understanding of their meanings and their relationships with the effectiveness constructs will be explained.

### **3.3.1 Independent Constructs of the Critical Factors**

#### **3.3.1.1 Learners' Characteristics**

The critical factors involved within learners' characteristics include Learner Computer Anxiety, Learner Technological Experience, Learner Self-Efficacy, Learner Control, and Learner Personal Innovativeness. These factors will be described in detail and a summary table will be later provided.

##### Learner Computer Anxiety

This can be described as “the fear or apprehension felt by individuals when they used computers, or when they considered the possibility of computer utilization” (Simonson et al., 1987, p. 238). Research has shown that computer anxiety is an essential factor relating to both student satisfaction and technology acceptance (Ball & Levy, 2008). Several studies have found a significant negative link between computer anxiety and factors related to overall student satisfaction, perceived ease of use, and usage of technology (Abdulla & Ward, 2016; Chang et al., 2017; Ghazal et al., 2018; Hsu et al., 2009; Piccoli et al. 2001; Raaij & Schepers, 2008; Sun et al. 2008; Venkatesh & Davis, 2000). Thus, it is suggested that students with a high level of computer anxiety may experience feelings of resistance, find difficulties with using the associated LMS, and may also find learning using BL unpleasant (Al-Busaidi, 2012).

##### Learner Technological Experience (Digital Literacy)

This relates to the student's experience when exposed to the technology related to the course and ultimately the skills that is learnt by the student (Thompson et al., 2006). Technology experience is also related to components involved with digital literacy. Digital literacy involves three factors: “digital competence, digital usage, and digital transformation” (Martin, 2006). It is often presumed that since students use technology frequently for personal and social reasons, that they acquire the necessary capabilities to effectively use the

LMS provided, yet this may not often be the case (Waycott et al., 2010). Thus, scholars suggest that it is important to understand how digitally literate students are and how experienced they are with the technology at hand, as often times instructors' expectations may be different than what students are capable of doing (Prior et al., 2016; Tang & Chaw, 2016). Additionally, a common claim in the literature is that students' digital literacy and technological experience is now considered a pre-requisite of BL courses (Stacey & Gerbic, 2008; Wach et al., 2011). Studies have shown that students' technology experience can greatly affect student satisfaction by having a significant link with students' perceived ease of use, perceived usefulness (Pituch & Lee, 2006) and overall technology acceptance (Thompson et al. 2006; Venkatesh & Davis, 2000). Thus, students who are digitally literate and have extensive technology experience will be able to acquire new skills through the use of technology and will have a greater learning experience with their courses.

#### Learner Self- Efficacy

This can be defined as students' "judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391). In this case, self- efficacy can be related to a student's perceived ability to use both computers and the internet (Bhuasiri et al, 2012). Studies have shown that computer and internet self-efficacy have a significant impact related to students' perceived ease of use (Cheng, 2011; Pituch & Lee, 2006; Roca et al., 2006), perceived usefulness (Chau et al., 2001; Vankatesh and Davis, 1996), and overall student satisfaction (Joo et al., 2013; Liaw, 2008; Wang et al., 2013). Thus, it is commonly suggested in the literature that the higher the level of computer and internet self-efficacy, the easier the students will find it to adapt to the new teaching method and will find the use of technology useful which in turn will allow students to experience a greater level of satisfaction.

#### Learner Control

This is defined as "individuals' ability to manage the learning process" (Yilmaz, 2017). Learner control involve factors related to self-directed learning which involve "learning methods, self-assessment, access to resources, resource management, and time planning" (Keskin & Yurdugul, 2019). Scholars have claimed that students who are



considered self-directed learners acquire self-regulatory skills which indicate that they are highly-motivated, independent learners, that are able to properly manage their own time, without the help of others, to support their learning process and self-evaluate themselves (Broadbent, 2017; McDonald, 2014; Selim, 2007). Self-regulation has been shown to be an essential factor relating to the success of BL and e-learning courses (Barnard et al., 2009; Van Laer & Elen, 2016). It has been suggested in the literature that students with self-regulatory skills are able to benefit from a BL environment as they possess the necessary skills to deal with the different components of their course. Studies have shown that students who have self-regulatory skills achieve higher grades than those who do not have the ability to learn independently (Owston et al., 2013; Tsai & Shen, 2009). Hence, studies have shown that learner control significantly impacts system use, student satisfaction, and the overall success of the BL course (Selim, 2007; Song et al., 2004; Van Laer & Elen, 2016; Wang et al., 2013; Yilmaz, 2017).

#### Learner Personal Innovativeness

This can be defined as the “tendency to experiment with and to adopt new information technologies independently of the experience of others” (Schillewaert et al., 2005). Studies have shown that personal innovativeness significantly impacts student acceptance, perceived usefulness, and perceived ease of use (Lewis et al., 2003; Raaij & Schepers, 2008; Schillewaert et al., 2005). Thus, scholars have claimed that students who are more accustomed to trying out new technologies will be able to quickly see the usefulness of using such systems and will ultimately have an easier time adapting and accepting the new teaching methods, which in turn can affect the overall level of student satisfaction.

### **3.3.1.2 Instructors’ Characteristics**

The critical factors involved within instructors’ characteristics include Instructor Teaching and Learning Style; Instructor Attitude; Instructor Control; Instructor Responsiveness; and Academic Workload and Time Allocation. The critical factors will be described in detail and a summary table will be later provided.

## Instructor Teaching and Learning Style

This relates to the type of learning style that instructors use when teaching students. Learning style can be defined as “characteristic cognitive, affective, and physiological behaviors that serve as relatively stable indicators of how learners perceive, interact with, and respond to the learning environment” (Keefe, 1979, p. 4). Studies have shown that instructors’ learning style influences students’ participation and attitude towards use of technology (Bhuasiri et al., 2012; Cheng, 2012; Khasawneh & Yaseen, 2017; Lee, 2010; Webster & Hackley, 1997). Thus, instructors who adopt an interactive teaching style can positively impact students’ perceived ease of use, level of participation, acceptance, and satisfaction (Arbaugh, 2000; Piccoli et al., 2001).

Furthermore, it has been demonstrated by academics that in order to ensure the effectiveness of BL courses, then instructors’ teaching and learning style should cover the following pedagogical principles:

1. Alignment with the existing curriculum: Instructors are expected to re-assess several components related to their DL course such as the course material, the suitability of the activities performed by the students, and the type of course assessments. Hence, once the pedagogy can fulfill students’ current needs as well as their future requirements, then achievement of sustainability of such courses is made possible (Robertson, 2008).
2. Inclusion: The pedagogy ought to take under consideration different types of achievements related to those of special needs and physical disabilities, as well as avoid any inequality related to gender and ethnicity (Anderson & McCormick 2005).
3. Engagement: The pedagogy must be engaging enough for students to enable self-motivation, as it ensures greater satisfaction for students (Anderson & McCormick 2005).
4. Innovative teaching approaches: Instructors should be able to innovatively use different approaches to display the advantageous use of technology within their courses rather than the use of the traditional teaching methods (Anderson & McCormick 2005).

5. **Effective learning:** Effective learning can be achieved when students are able to fulfill their learning needs and goals. This can be accomplished when instructors provide them with a choice of different learning approaches which they can choose from and personalize (Anderson & McCormick, 2005).
6. **Providing different assessment types:**
  - Formative Assessment:** This can be in the form of either “feedback, peer assessment, or self-assessment” (Anderson & McCormick, 2005). Instructors are expected to provide quick formative assessments to provide their students with better learning by understanding their strengths and weaknesses (Devedzic, 2006; Yen & Lee, 2011).
  - Summative Assessment:** This is a performance-based outcome of students (Khan, 2001) and can be measured by their grades based on their achievements. It is important that the assessments must be valid and reliable to ensure that it does not negatively impact students to ensure future continuity of BL courses (Anderson & McCormick, 2005; Boud, 2000; Yen & Lee, 2011).
7. **Coherence and Consistency:** The coherence of the pedagogy is essential to ensure the alignment of all the activities related to the course, with the course objectives, course materials, and assessments (Anderson & McCormick, 2005). The different forms of assessments should also be consistent in nature, as they “may be affected by different educational levels” (Chatti et al., 2010).

### Instructor Attitude

This relates to instructors’ notion in participating within courses that involve BL (Bhuasiri et al., 2012). Research has portrayed that instructor attitude is a vital factor contributing to the successful implementation of BL courses (Buchanan et al., 2013; Johnson et al., 2012; Thornton, 2010), as their attitude is comprised of their perceptions of whether this teaching method is advantageous and well-suited with the existing institutional policies and procedures in place (McPhail & McDonald, 2004). Thus, studies have shown that instructors’ attitude greatly impacts system use, perception, and level of user satisfaction (Arbaugh, 2000; Khasawneh & Yaseen, 2017; Lwoga, 2014; Piccoli et al., 2001; Smeets, 2005). Thus, if an instructor teaching the BL course has a negative view of the learning process, this will in turn

affect the level of students' motivation, performance level, and satisfaction regarding the course. On the contrary, other instructors have reported to feel excited to learn something new and innovative as they have found it to be invigorating (Jones & Kelley, 2003; Smith, 2001). Therefore, Sun et al. (2008) suggest that institutions must carefully choose instructors who will teach BL courses to ensure that students are not negatively impacted by the attitudes of their instructors but rather will have a positive outlook regarding the course and its usefulness. Moreover, as shown by studies, instructor attitude affects instructors' motivation of BL implementation (Ibrahim & Nat, 2019; Lameris et al., 2012), thus, it can very well affect the instructors' perceived usefulness and level of satisfaction when asked to teach a BL course.

### Instructor Control

This relates to the level of control that instructors have when using the technology at hand (Bhuasiri et al., 2012). Instructor control also relates to technological experience and digital literacy, similar to that concerning the factor related to students. Studies have shown that the instructors' control of technology impacts students' acceptance, satisfaction, and use (Al-Busaidi, 2012; Khasawneh & Yaseen, 2017; Leidner & Jarvenpaa, 1993). Leidner & Jarvenpaa (1993) indicated that students feel a level of frustration and de-motivation when they feel that their instructor does not know how to use the technology. Further studies conducted by Arbaugh (2000) and Khan (2005) have also shown that instructors' control also impacts learning outcomes. Thus, it is important that instructors master how to use the technology at hand to ensure that students have a good attitude towards the use of such technologies. However, Tshabala et al. (2014) claim that it is not only students who are affected by the lack of instructors' control but instructors themselves, as they may be discouraged to use the system if they feel that they lack the necessary skills and technological competence. Thus, instructors who are digitally literate and have enough technological experience using the system are able to have a higher level of control than those who do not. Hence, Al-Busaidi & Alshihhi (2012) suggest that instructors who do not have the necessary level of experience using the LMS must receive adequate training from their institutions, as instructors' control impacts their overall satisfaction with teaching a BL course and using the associated LMS.

### Instructor Responsiveness

This can be defined as the students' "perception of a prompt response from the instructor to online problems and requests" (Sun et al., 2008). Studies have shown that instructor responsiveness can greatly impact students' level of satisfaction, perceived ease of use, and perceived usefulness (Arbaugh, 2002; Ghazal et al., 2018; Khasawneh & Yaseen, 2017; Thurmond et al., 2002). Thus, Soon et al (2000) claim that if instructors do not promptly respond to students' queries or problems in a timely fashion then this can have a negative effect on student learning. Therefore, it is important that instructors' level of responsiveness is always timely to ensure that they improve students' level of perceived usefulness and satisfaction (Chickring & Gamson, 2006; Ryan et al., 1999; Thurmond et al., 2002).

### Academic Workload & Time Allocation

This refers to how much time instructors spend on preparing their BL courses and the added workload that is required from them. It has been suggested in the literature that BL provides the opportunity for instructors to reshape the way courses have been designed, structured, and delivered for the past several decades (Bleed, 2001). However, Owston & York (2018) claim that one of the main concerns that instructors often have when asked to design and teach their BL courses, is the increase in workload and time that is required from them. All aspects required from an instructor related to BL courses, such as planning, designing, and maintaining the course materials; learning the necessary technological skills to use the system proficiently; and teaching the course itself is time consuming (Jones & Kelley, 2003; Weston, 2005). Thus, scholars believe that the added time required from instructors negatively impacts their academic workload (Betts, 1998; Birch & Burnett, 2009) as they are often expected to do so at the expense of their other academic duties and their own research, which enables them to receive a promotion or tenure (Howell et al., 2005; Maguire, 2005; Meyer & Xu, 2009).

A common claim in the literature is that institutions are often disinclined to reduce instructors' existing academic workload and provide time release to enable them to develop

and maintain their courseware (Chizmar & Williams, 2001; Weston, 2005). Thus, in this case instructors will often upload course material that can be re-used for other courses and do not require constant updating, such as generic videos and power point slides, instead of external links and specific materials that are “time sensitive” (Buch & Burnett, 2009). Furthermore, studies have shown that instructors are often discouraged to take part in teaching a BL course due to the additional time commitment it takes to integrate the technology with the existing curriculum (Drent & Meelissen, 2008; Mumtaz, 2000; Simpson, 2010). As instructors’ workload increases, their motivation to teach BL courses decreases and has an overall effect on their level of satisfaction (Birch & Burnett, 2009; Ibrahim & Nat, 2019; Napier et al., 2011; Simpson, 2010; Zhou & Xu, 2007). Thus, it has been recommended to ensure BL success, that institutions should follow a phased implementation process to ensure that instructors are not overwhelmed with the increase in workload and time commitment required from them (Carroll-Barefield et al., 2005).

### **3.3.1.3 LMS Characteristics**

The critical factors involved within the LMS’s characteristics include System Quality, Information Quality, and Service Quality. These factors will be described in detail and a summary table will be later provided.

#### System Quality

This relates to the system’s performance, functionality, interactivity, and response. System performance refers to the “degree to which a person believes a system is reliable and responsive” (Liu & Ma, 2006) while, system functionality is defined as the “perceived ability of a system to provide flexible access to instructional and assessment media” (Pituch & Lee, 2006). Additionally, system interactivity is defined as the “ability of the system to provide interactions among students themselves and the interactions between faculty and students” (Pituch & Lee, 2006). Whereas system response is defined as the degree to which the user believes the system’s response is “fast, consistent, and reliable” (Pituch & Lee, 2006). Thus, the overall system quality is related to the technology’s and internet’s quality, reliability, ease of use, functionality, interactivity, and response time (Alenezi, 2017; Bhuasiri et al., 2012; Wan et al., 2007; Webster & Hackley, 1997). Studies have shown that system quality, which

include internet and technology quality, have a direct correlation with perceived ease of use, perceived usefulness, system use, and students' and instructors' satisfaction (Cheng, 2012; DeLone & McLean, 1992; Ghazal et al., 2018; Liaw, 2008; Lwoga, 2014; Park et al., 2012; Piccoli et al., 2001; Roca et al., 2006; Saba, 2012; Wang & Chiu, 2011). Thus, scholars have claimed that the higher the system quality, the higher the levels of perceived ease of use, perceived usefulness, and overall use of the system, which in turn will increase the level of user satisfaction with the system and the course in general (Pituch & Lee, 2006). Additionally, studies have further shown that the systems' functionality and interactivity also have a direct impact on perceived ease of use and perceived usefulness of the system (Cheng, 2011; Pituch & Lee, 2006). It is believed that focusing on the aspects related to interaction represent the foundation of whether students find the medium being used in the BL course sufficient enough to provide a good learning experience (Alavi & Dufner, 2005; Graham, 2006). Shea (2007) also suggests that providing attention to interaction is essential in order to produce BL environments of exceptional quality. Therefore, the greater the systems' interactivity and functionality, the higher the levels of perceived ease of use, perceived usefulness, and system use (Alnezi, 2017; Daouk & Aldalaien, 2019). Furthermore, studies have also shown that system interactivity is an essential factor in increasing user satisfaction related to both instructors and students (Wanstreet, 2006; White & Low, 2013; Zhang, 2005; Zhao et al., 2005).

### Information Quality

This can be defined as the “perceived output produced by the system” (Al- Busaidi, 2012) and it relates to characteristics such as reliability, relevance, and accuracy (Bailey & Pearson, 1983; Bhuasiri et al. 2012; Seddon, 1997). Studies have shown that there is a direct correlation between information quality and perceived usefulness, perceived ease of use, use of the system, and user satisfaction (Cheng, 2011; DeLone & McLean, 1992; Roca et al., 2006; Venkatsh & Davis, 2000). Thus, if the information is of good quality, students and instructors will then consider that using the system is easier than expected, more useful than what was anticipated, and would have a higher level of satisfaction with the use of the system (Cheng, 2011).

### Service Quality

This can be defined as the “quality of support services provided to the systems’ end users” (Al-Busaidi, 2012). This relates to characteristics such as reliability, responsiveness, and empathy (Kettinger & Lee, 1994; Roca et al., 2006). Studies have shown that service quality directly impacts user satisfaction (DeLone & McLean, 2003; Khasawneh & Yaseen, 2017; Moses et al., 2008; Wang & Chiu, 2011) while also having an indirect correlation with perceived usefulness (Roca et al., 2006). Thus, it is important for institutions to have specialized and ongoing system support (Bonk, 2001; Jones & Moller, 2002) and good service quality as it allows users to understand the usefulness of using the system and in turn can have a high level of user satisfaction as they learn to use and accept the use of the system.

#### **3.3.1.4 Course Characteristics**

The critical factors involved within course characteristics include Material Quality and Learning Resources, and Course Flexibility. These factors will be described in detail and a summary table will be later provided.

#### Material Quality and Learning Resources (Course Quality)

This can be defined as “the quality of writing, images, video, or flash to meet generally accepted standards of semantics, style, grammar, and knowledge” (Bhuasiri et al., 2012). Not as many studies have been found to measure course quality as a critical factor for the effectiveness of a BL course, however, it is still important to mention and understand its effect. Thus, it has been shown that course quality directly impacts perceived usefulness, perceived ease of use, actual use of the system, and user satisfaction (Cheng, 2012; Ghazal., 2018; Liu, 2010; Sun et al., 2008). Hence, for the course to be considered of good quality, it has been suggested that the course itself should provide interactive presentations, stimulating online discussions, and a well-managed approach related to the online learning practice (Daouk & Aldalaien, 2019; Piccoli et al., 2001; Sun et al., 2008). Instructors are thus expected to support students with their learning process and help them understand how to effectively manage the multiple resources involved with the BL course (Burch & Burnett, 2009). Scholars have indicated that this in turn will allow students to avoid cognitive



overload, which is a common problem concerning students who are enrolled in either DL or BL courses (Jochems et al., 2004; Sankey & St Hill, 2005). Hence, instructors are often advised to provide consecutive pieces of course material and prioritize the most important information to help students grasp their learning material (McLoughlin, 2002). Therefore, if the course being taught is perceived as of good quality, there will be a higher level of user satisfaction due to the fact that users will be able to understand the usefulness of the added use of the system as well as improve the perceived usefulness and actual use of the system.

### Course Flexibility

This can be defined as students' and instructors' "perception of the efficiency and effects of adopting e-learning in their working, learning, and commuting hours" (Bhuasiri et al., 2012). This relates to characteristics dealing with "flexibility in time, location, and methods" (Sun et al., 2008). Horn & Staker (2014) also concur and suggest that course flexibility involves factors related to "time, place, path, or pace of learning" (Staker & Horn, 2012). The aspect of time refers to the use of asynchronous communication, where communication is often delayed and students simply log online and can return messages and study on their own even if no one else is logged on at the exact same time (Osoguthorpe & Graham, 2003; Tallent-Runnels et al., 2006; Williams, 2010). The aspect of place refers to the ability to learn in varying places other than the traditional classroom (Osoguthorpe & Graham, 2003). Students can thus have live interaction with instructors, which takes place in face to face situations, or virtual interaction, which takes place online (Graham, 2006). Additionally, the aspect related to path refers to "the order in which the content is provided in the course" (Van Laer & Elen, 2016); and pace of learning refers to the speed at which students decide to learn their course materials (Horn & Staker, 2014). Therefore, studies have shown that course flexibility has a direct correlation with user satisfaction (Arbaugh, 2000; Daouk & Aldalaien, 2019; Sun et al., 2008;). Thus, if the course is considered to be flexible enough, the level of user satisfaction will be high as they will be able to understand the benefits of the BL course and using the system at hand.

### **3.3.1.5 Organizational Characteristics**

The critical factors involved within organizational characteristics include Organizational Support, Training & Development, and Assessment & Feedback. These factors will be described in detail and a summary table will be later provided.

### Organizational Support

This is related to the type of support provided by senior managers regarding the implementation of BL courses, the use of the technology itself, and the importance of its use on the overall success of the organization. To ensure the successful implementation and continual use of BL courses within such institutions, senior management must provide “supportive institutional policy, leadership, and practice towards the idea of blended learning courses” (Ibrahim & Nat, 2019). Scholars have claimed that instructors often complain that upper management do not provide a clear plan when initiating BL programs (McLean, 2005; Surry et al., 2005) which greatly affect their attitude towards teaching such courses (Burch & Burnett, 2009). Studies have shown a direct correlation between organizational support and user satisfaction (Bhuasiri et al., 2012; Ghazal, 2018; Joo et al., 2014; Khasawneh & Yaseen, 2017; Lee et al., 2005; Lee et al, 2008; Mamary et al., 2014). This is suggested to be due to the fact that senior managers, whom are in charge of the “institutional decision making, strategy, and structure” (Ibrahim & Nat, 2019), have the ability to encourage users to use the system associated with their BL courses and can reassure them that using such systems is now “part of the organization’s culture” (Al-Busaidi, 2012).

Furthermore, studies have shown that the absence of recognition from upper management and a non-existing reward system are seen as barriers for instructors to involve themselves in the development and implementation of BL courses (Burch & Burnett, 2009; Moser, 2007). Thus, when users, most importantly instructors, feel that there is a high level of managerial support, they begin to feel a higher level of motivation to ultimately use the system and in turn provides a greater level of satisfaction (Porter & Graham, 2015).

### Training & Development

This can be defined as “the amount of specialized instruction and practice that is afforded to the user to increase the users’ proficiency in utilizing the computer capability that

is unavailable” (Bhuasiri et al., 2012). Training is essential to provide all system users with the necessary ability to use the online system proficiently (Daouk & Aldalaien, 2019; Keengwe et al., 2009; Porter et al., 2014; Stacey & Gerbic, 2008). Hence, scholars have suggested that in order for instructors to teach the new BL courses, they must have the necessary technological skills to manage with the online portions of the course (Matzat, 2013; Owens, 2012; Toth et al., 2008). Garrison & Vaughan (2013) claimed that if institutions do not provide the necessary level of training and professional development opportunities, instructors may be less inclined to learn new teaching methods that will work with BL courses and will opt to stick to their conventional ways. Instructor’s training can be done using different forms such as workshops or online tutorials which aim to enhance the users’ technological capabilities in relation to using the online tools associated with the available system (Rienties et al., 2013). However, scholars have claimed that the most important support that instructors may receive from their institutions is capacity building from a training perspective (Burton & Bessette, 2013; Myers et al., 2011; Rienties et al., 2013) and best provided by trainers within small groups (Georgina & Olson, 2008). Instructors also need to be provided with specific training and continuing technical support as not all instructors may have the necessary digital literacy required to quickly comprehend how to use the system proficiently (Irani & Telg, 2005; McLean, 2005).

Additionally, studies have shown that training has a direct impact on the perceived usefulness, perceived ease of use, and system use (Cheok et al., 2015; Lee, 2008; Nicolle & Lou, 2008). Thus, if good training is provided, users will feel more confident about using the system and will be more likely to use it and understand its benefit. Additionally, high attrition rates have been proven to be significantly impacted due to students’ decrease in motivation and overall satisfaction from cognitive overload due to the lack of necessary training and online instructional manuals provided to them ahead of time (Pintrich & Shunk, 2001; Van-Merriënboer & Sweller, 2005). Hence, White & Low (2013) claim that it is also very important for students to receive adequate training before the start of their courses, so they do not spend too much time focusing on how to use the system at hand rather than focusing on the learning process itself.

Furthermore, instructors are often involved in trying to ensure that students are provided with the necessary technical training and support. This is a particularly important manner as students who do not receive the proper training may have difficulties with accessing course materials and ultimately participating in their BL course. Thus, in this case often instructors follow-up to ensure that the students have undergone the necessary training and are always available to support them with any queries that they may have to ensure that such technological issues do not affect their overall learning process (Garrison & Kanuka, 2004; Toth et al., 2008; Wu et al., 2010).

### Assessment & Feedback

This is related to the evaluation that instructors and students provide the institution concerning several aspects related to their experience with their BL courses. Evaluation can be defined as “the process by which we make judgements about the worth of an educational development” (Harding et al., 2005). Senior management often focus on the implementation of BL within their institutions but quite often the feedback process itself is just an afterthought (Niemic & Otte, 2009). However, scholars have indicated that the assessment and feedback related to the system used, the whole blended experience, and the support provided by the technical support staff and upper management are essential in the success, improvement, and continuity of BL courses and programs (Calderon et al., 2016; Ginns & Ellis, 2009; Niemic & Otte, 2009). It has been suggested in the literature that it is upper managements’ duty to understand instructors’ and students’ needs and assess any difficulties they may be facing with the system and the overall BL experience, regarding all aspects related to the course (Busher, 2006; Calderon et al., 2016).

Gaining feedback from both instructors and students can be achieved in a number of ways, such as interviews and distributing questionnaires with either open ended or closed ended questions (Harding et al., 2005), depending on what type of data the institution would like to collect. Online assessments may be preferred by upper management to gather timely feedback from students (Harding et al., 2005) yet it is essential that issues related to both the online component, including system factors as well, and the face to face components are being assessed as BL is in fact a hybrid model that mixes between both components (Ginns

& Ellis, 2009). It is also essential for instructors to gather feedback from students regarding their overall learning process (Hilliard, 2015), as it can also provide instructors valuable insight regarding their “learning skills” (Calderon et al., 2016) as well as perceptions regarding the instructors’ teaching and learning style, which may be needed to be further adapted to ultimately ensure student satisfaction and overall course success (Neumeier, 2005).

Furthermore, it is equally important for upper management to evaluate the BL implementation process as well as the instructors’ teaching experience by assessing their overall perceptions in order to gain valuable feedback (Burton et al., 2012; Calderon et al., 2016). Instructors should thus be asked to evaluate their BL experience regarding the course development and the LMS used during different stages, whether at first implementation or after improvements have been made, (Harding et al., 2005), as instructors themselves believe that they should evaluate technology purchased by their institutions in terms of its quality and how it can aid them in delivering their courses (Hilliard, 2015; Ryan 2005). Additionally, it is crucial for instructors to also evaluate the support received from management, as well as the caliber and usefulness of training that has been provided by their institutions (Calderon et al., 2016; Hilliard, 2015). Thus, embedding a repetitive feedback process before and after designing and teaching BL courses, will allow management to understand instructors’ experiences, whether good or bad, as well as allow for the possibility of rectifications and re-designing of training workshops and professional development programs in hopes of providing better training and support (Calderon et al., 2016; Niemiec & Otte, 2009).

Moreover, as faculty resistance is a common notion in the implementation of BL, Niemiec & Otte (2009) suggest that instructors must feel a sense of ownership when dealing with BL courses. Thus, by allowing them to express their points of view freely and implementing changes as a result, it will allow them to feel satisfied with the overall BL process (Calderon et al., 2016). Finally, once students and instructors provide their evaluations concerning all the aspects related to the BL courses, the team in charge of assessments should discuss the results of the evaluation with the parties involved (Calderon et al., 2016).

### 3.3.2 Relationship between the Critical Factors and the Effectiveness Measures of BL

The overall relationship between all the 18 critical factors and effectiveness measures of BL, based on the literature review, is shown below in Table 3.1.

Critical Factors	Effectiveness Measures			
	Perceived Ease of Use	Perceived Usefulness	System Use	User Satisfaction
<b>Learners Characteristics</b>				
Learner Computer Anxiety	✓		✓	✓
Learner Technology Experience (Digital Literacy)	✓	✓	✓	✓
Learner Self- Efficacy	✓	✓		✓
Learner Control (Self-directed Learning)			✓	✓
Learner Personal Innovativeness	✓	✓		✓
<b>Instructors Characteristics</b>				
Instructor Teaching and Learning Style	✓			✓
Instructor Attitude		✓	✓	✓
Instructor Control			✓	✓
Instructor Responsiveness	✓	✓		✓
Academic Workload & Time Allocation				✓
<b>LMS Characteristics</b>				
System Quality	✓	✓	✓	✓
Information Quality	✓	✓	✓	✓
Service Quality		✓		✓
<b>Course Characteristics</b>				
Material Quality & Learning Resources (Course Quality)	✓	✓	✓	✓
Course Flexibility				✓
<b>Organizational Characteristics</b>				
Organizational Support				✓
Training & Development	✓	✓	✓	✓
Assessment & Feedback				✓

Table 3.1. Relationships Between Critical Factors and Effectiveness Measures

In this section I have analyzed the literature regarding the critical factors of BL. My analysis has highlighted that the major shortcomings in this literature are that the critical

factors found in the current body of literature do not consider the changes in the learning environment over the years. Even though the learning environment has changed immensely from when these critical factors were first identified, the BL factors found in the body of literature were quite similar and had not changed extensively. Also, the critical factors identified in the current body of literature are not contextual, as they are often a result of research conducted in North America and Europe, and do not consider various countries in which the BL courses are being offered nor the nature of students who study at such HEIs. Thus, the current body of literature fails to incorporate sufficient cultural critical factors which may be of importance to the specific country or region which is being studied. In this case, scholars have insufficiently identified cultural factors from instructors' perspectives which may impact the GCC region, as they share similar cultures.

Additionally, as the current body of literature is not contextual, it also does not consider differences in countries' technological readiness and advancement. Thus, the critical factors in literature need to be constantly re-evaluated within varying countries to reflect such differences as some critical factors may have become more important while others may have become obsolete. Moreover, a great deal of research often focus on showcasing the critical factors which impact the effectiveness of a BL course from students' perspectives while often disregarding other perspectives such as that of the instructors.

These shortcomings seem particularly relevant in the context of my own research, as I focus on the critical factors of BL within the UAE and specifically from the instructors' perspectives. Therefore, in the present research study, I will re-examine the identified critical factors described in this section, from varying dimensions, in order to avoid making any pre-assumptions. I will also attempt to uncover any cultural critical factors, which may have not been identified from this study's literature review.

### **3.4 Continuous Intention to Use**

In this section, I review literature related to the continuous intention to use of BL and e-learning. I outline that this literature focuses on research related to identifying the critical factors as well as the effectiveness measures which have been found to influence continuity

decisions, from different perspectives. This section also presents the TAM framework which has been used as the basis of this study. Yet I highlight that this literature has shortcomings related to its focus on the concept of e-learning and not sufficiently that of BL, which often translates to scholars focusing on studying continuity of the system within an e-learning context. As well, the majority of literature predominantly studies continuity decisions from students' perspectives and ignores other important perspectives such as that of the instructors. Moreover, there is a lack of research related to continuous use of various DL courses within GCC countries.

The continuous intention to use (CIU) is the primary factor related to the success of technological learning such as BL, which has been pointed out by several studies (Chiu et al., 2005; Chiu et al., 2007; Al-Samarraie et al., 2017; Limayem & Cheung, 2008; McGill et al., 2014). CIU is defined as the “intention related to technological continuance” which can “be measured by using the initial set of perceptions” (Bhattacharjee & Barfar, 2011). Chiu et al. (2007) also define it in relation to e-learning systems as “the subjective probability that an individual will continue using e-learning” (Chiu et al., 2007). Thus, it is suggested in the literature that senior managers can benefit greatly from understanding the effectiveness factors that impact the instructors' and students' decisions to continually use the LMSs that are being used within their BL courses (Bolliger, 2004). Most often senior managers tend to focus mostly on the initial implementation of the BL courses, yet many forget that it is more important to focus on the long-term continuity of such courses, as success can be measured by the continued use of BL courses (Bhattacharjee, 2001). It has been seen by several studies that numerous HEIs fail to continue the use of such systems beyond the initial implementation phase (Al-Samarraie et al., 2017; Penna et al., 2009; Sun et al., 2008).

To study the factors that contribute to the CIU, several models have been created throughout the years which are mostly adopted from the Technology Acceptance Model (TAM). The TAM was developed by Davis (1986) to understand individuals' attitudes and its effect on the actual system use. The original model was first created in the context of information systems and has been adapted over the years to study technology acceptance within a higher education setting. The TAM model has two constructs: Perceived Ease of



Use and Perceived Usefulness, which influences the Users' Attitude. The Attitude component will thus affect the Actual System Use. Many scholars have adapted the TAM model to study CIU and have most commonly combined it with the Expectation Confirmation Model (ECM) in order "to improve its applicability and explanatory power" (Rahi et al., 2020). However, ECM is based on extrinsic motivation and ignores intrinsic motivation which is useful for further understanding of CIU decisions (Sorebo et al., 2009). Therefore, further research which incorporates factors related to intrinsic motivation must be further studied. More so, the current body of literature related to CIU BL fails to study factors related to instructors' intrinsic motivation in terms of teaching and academic performance (Maher et al., 2018). Therefore, an examination of CIU research within the field of DL was conducted in order to gain a wider breath of knowledge and understanding.

Examples of studies examining CIU BL or e-learning courses include Liao et al. (2009) who created their technology continuance theory by combining the TAM with the expectation conformation model (ECM), and cognitive model. They found perceived ease of use, perceived usefulness, satisfaction, and attitude regarding system use as drivers that affect the continued intention to use. Ho (2010) also combined TAM, ECM, cognitive model, with the addition of a self-determination model to study the effect of certain motivational factors and also concluded that perceived usefulness, user satisfaction, and attitude directly affect users' intentions to continually use the system related to their courses. Lin et al. (2011) also developed an adapted model to study the intention to continually use e-learning systems by focusing on undesirable incidents. It was also found that the undesirable incidents, perceived usefulness, and satisfaction regarding system use were among the most influential factors affecting the continued intention to use. Ismail et al. (2012) studied the intention to continually use e-learning systems from the students' perspectives and concluded that it was affected the most by technology quality as students' intention was within the average range. Ismail et al's (2012) study does represent a majority of CIU research which (a) focuses on studying CIU decisions from students' perspectives and downplay other perspectives and (b) emphasizes on studying factors which relate to the LMS such as System Quality, Information Quality, and Service Quality. Other essential factors within the student dimension, such as Technological Experience, Computer Anxiety, Self-Efficacy, Control, and Personal

Innovativeness were not included in their study, which are important when examining students' CIU decisions within an e-learning context. However, McGill et al.'s (2014) research considered important shortcomings in CIU literature by studying continuity decisions from the institutional perspective and examining varying critical factors which impact CIU decisions. They concluded that the most significant critical factors that affected the 64 institutions that were studied are financial support, managerial support, and the quality of the technology used. It was also found that less than a third of all the institutions studied continued their e-learning courses.

Moreover, Al-Samarraie et al. (2017) studied continuity decisions, from both student and instructor perspectives, within an e-learning context by focusing on technological factors and those related to system implementation. It was determined that information quality, task technology fit, system quality, utility value, and perceived usefulness all positively affect the intention to continue to use and continued satisfaction of both students and instructors. While, Al-Marouf et al. (2021) studied the CIU e-learning among both students and instructors by adapting TAM. It was concluded that perceived ease of use, perceived usefulness, perceived organizational support, and technological efficacy affected both students' and instructors' intentions, while technological pedagogical content knowledge also affected instructors' intentions. Despite this research also studying CIU e-learning, it is still important to look at as it is one of the rare CIU studies conducted in the UAE. Yet, it is somewhat limited as several critical factors such as Learner Self-Efficacy, Learner Control, Instructor Attitude, and Academic Workload & Time Allocation were not included in this study and would be necessary when examining both students' and instructors' perspectives.

Furthermore, user satisfaction has been found by many scholars to be the greatest motivator affecting CIU decisions involved with e-learning and BL courses (Chiu et al., 2005; Cho et al., 2009; Hung et al., 2011; Lee, 2010; Limayem & Chung, 2011; Lin et al., 2011; Lin, 2012; Roca et al., 2006; Sorebo et al., 2009; Zhang et al., 2012). Studies have also found that the perceived usefulness (Al-Murshidi, 2020; Bhattacharjee, 2001; Cho et al., 2009; Goh & Yang, 2021; Hyashi et al., 2004; Larsen et al., 2009; Lee, 2010; Limayem & Cheung, 2011; Ma et al., 2013; Muries, 2017; Sun & Jeyaraj, 2013; Venkatesh & Davis,

2000; Zhang et al., 2012), perceived ease of use, and the actual system use are other important motivators in relation to CIU (Al-Murshidi, 2020; Bhattacharjee, 2001; Ho, 2010; Hyashi et al., 2004; Liao et al., 2009; Venkatesh & Davis, 2000). Other important factors which have been found to affect CIU are factors related to the system which include system quality, service quality, and information quality (Al-Samarraie et al., 2017; McGill, 2014; Roca et al., 2006; Saba, 2012). As previously discussed, the majority of CIU BL research focuses on the LMS particularly and thus study the critical factors related to the technology and system involved, while paying less attention to other important critical factors related to the student, instructor, course, and the organization which are necessary to study CIU BL as a teaching methodology.

Hence, a TAM framework modified after Al-Busaidi (2012) and Bhuasairi et al. (2012), will be used as the basis of this study as it encompasses the common critical factors mentioned in the above sections and the most prominent effectiveness measures which I aim to study. Bhuasairi et al. (2012) studied successful e-learning usage in developing countries and looked at instructor and organizational perspectives. Several factors from various dimensions were included, however, other critical factors which would be deemed necessary such as Information Quality, Service Quality, Organizational Support, Academic Workload & Time Allocation, and Assessment & Feedback were not included. While, Al-Busaidi (2012) studied learners' successful e-learning usage and focused on factors related to technology and the four effectiveness measures which may influence CIU LMS in the future. Several factors from varying dimensions were also included however, other important critical factors, such as Assessment & Feedback, Instructor Control and other critical factors related to classmates, were not but would be necessary to understand learners' perspectives. Nonetheless, Al-Busaidi (2012) and Bhuasairi et al. (2012) studies are one of the rare few which examine a large number of critical factors from varying dimensions and thus, have been used as the basis of my study and have been adapted to include all the discussed critical factors related to BL courses and their correlation with the four dependent constructs, which are depicted below in Figure 3.1. As seen in the figure, the critical factors which have been categorized into five main dimensions (learner characteristics, instructor characteristics, LMS characteristics, course characteristics, and organizational characteristics) that directly

affect the effectiveness constructs (perceived ease of use, perceived usefulness, learning management system use, and satisfaction) which make up the CIU BL from an instructors' perspective.

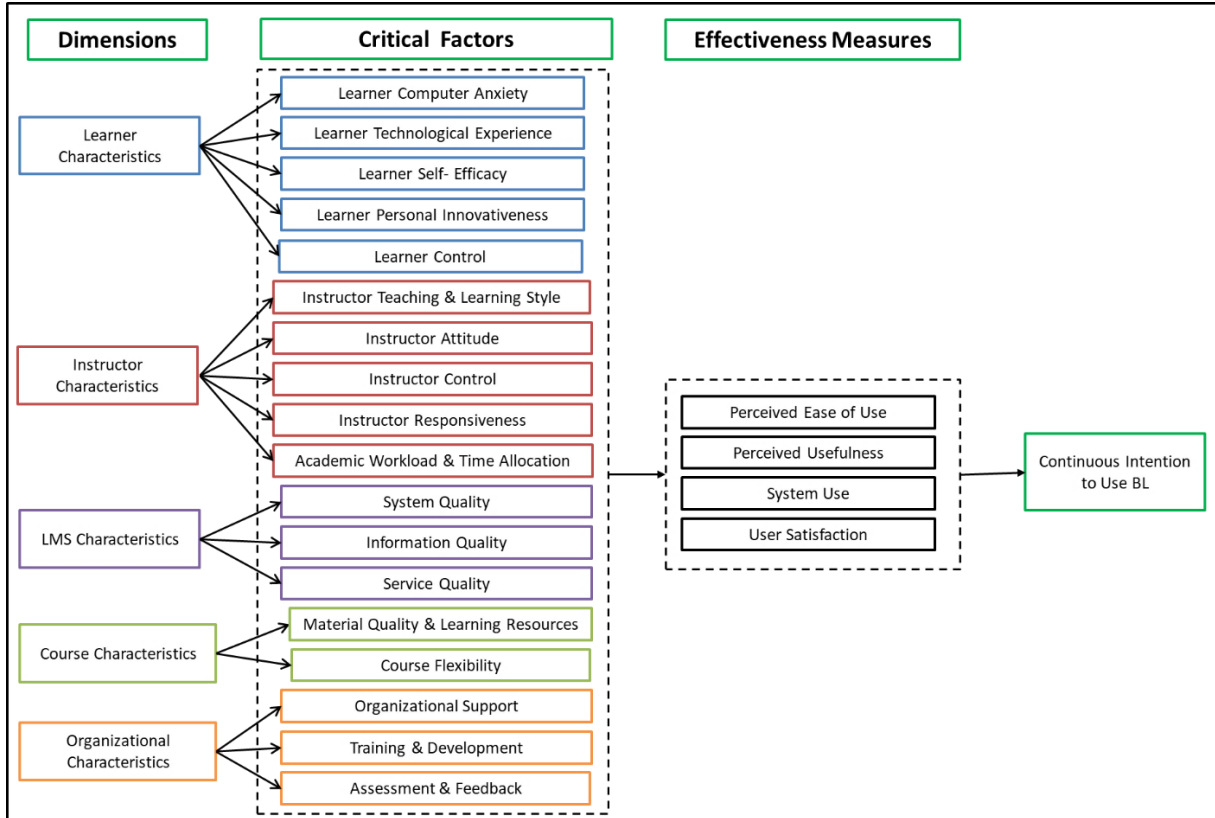


Figure 3.1 BL's 5 Dimensions; Associated Critical Factors; and Effectiveness Measures which impact the CIU decision

In this section I have analyzed the literature related to CIU decisions within DL contexts. My analysis has highlighted that the major shortcomings are that the current body of literature does not showcase sufficient research which focuses on CIU BL in particular compared to the vast majority of research which continuously studies it in the context of e-learning (Al-Marouf et al., 2021b). This may be a result of scholars' interest in studying CIU LMS specifically, which they perceive to be similar within different contexts of technological learning. Such scholars may assume that their findings can be applicable to both e-learning and BL, as they tend to view different forms of DL as one. As previously mentioned in section 1.2, DL is an umbrella term for e-learning and BL; and therefore, such distinctions should be made by scholars when studying CIU decisions from varying perspectives.

Additionally, as scholars tend to focus on CIU LMS particularly, there is insufficient attention towards studying CIU BL as an overall teaching methodology. This often translates to an emphasis on studying factors which relate to the LMS such as System Quality, Information Quality, and Service Quality; and insufficiently studying other critical factors of BL from varying dimensions, such as those identified in section 3.3. Moreover, the literature focuses on studying CIU decisions from the students' perspective and often ignores other important perspectives such as that of the instructors. Furthermore, CIU research related to DL programs within GCC countries is extremely limited (as I discussed above, only a single study related to CIU e-learning from instructors' perspectives has been conducted in the UAE) and thus, the current body of literature does not consider varying cultural contexts.

These shortcomings seem particularly relevant in the context of my own research, as I aim to study CIU BL decisions from instructors' perspectives specifically within the UAE. Therefore, in this present research thesis, I will study CIU decisions related to both the BL course as well as the associated LMS and the 18 critical factors, from varying dimensions, will be tested.

### **3.5 Blended Learning Continuity**

In this section, I review literature related to BL continuity. I outline that this literature focuses on the specific components required for HEIs to achieve stability and continuity of their BL programs and courses. Yet I highlight that this literature has shortcomings such as insufficient research outlining the major components required to achieve stability and continuity of BL, particularly within the context of GCC countries.

Continuity of BL programs has been researched by academics in hopes of aiding institutions to continually improve DL programs, whether fully online or in blended form. Continuity of BL can be defined as “the proper management of BL practices that both, meet the needs of present users and also profile those of future users, while examining the means through which BL initiatives can be continued and sustained across time, yet assuring long-term educational impact” (Kyei-Blankson, 2019). According to Gun (2011) the conditions

related to stability and continuity of DL courses involve the proven success of such courses, the systems involved have been implemented and further developed to meet the needs of the users, and the future development of the DL courses can be done independently and irrelevant of the original developers and instructors (Gunn, 2011). Thus, scholars claim that the effectiveness factors which are included in stable and continual DL are (a) involving the right mix of developers and instructors to enhance the courses by “ensuring that it reflects the pedagogy and research” (Gunn, 2011); (b) selecting passionate instructors which can motivate others and act as champions, whom can instigate the adoption of such systems and encourage future utilization; (c) ease of use of the system; and (d) sufficient institutional support in regards to funding the implementation of distant learning programs (Anderson et al., 2005; Gunn, 2011).

Moreover, Stepanyan et al. (2013) concur and have adapted the conditions required for stability and continuity of BL and suggest that continuity is comprised of three main aspects: (1) the organization of existing and acquired resources related to costs incurred from the implementation of LMSs; (2) achievement of effective education which focuses on attaining high student performance, constant evolution of knowledge, and constant use of the LMS; and (3) on-going professional development and training which ensures constant enhancement of technological and institutional changes (Stepanyan et al., 2013). The figure below depicts the three main elements Stepanyan et al (2013) advocate that make up “the stability and continuity of a learning environment”.



*Figure 3.2 Stability and Continuity of a Learning Environment (Stepanyan et al. 2013)*

It has been suggested in the literature that the first component, resource management, involves issues related to institutions being cost-effective in relation to the upfront costs of acquiring technology and the further maintenance and development costs of the BL course itself, as well as “staff time” (Stepanyan et al. 2013). Littlejohn (2003) had also stated that in order to achieve stability and continuity, institutions must acquire technology that allows for the continuation of high-quality instruction while also being cost effective. Additionally, Sridharan et al. (2010) also concur that resource management is one of the main components of achieving sustainable utilization and further suggests that the use of cloud computing can ensure effective learning when institutions choose to implement e-learning or BL courses (Sridharan et al., 2013). Furthermore, scholars suggest that institutions may reduce the long-term costs of BL courses by recycling course materials and ensuring that the adopted course materials are constantly made available and continually updated throughout time (Gundogan & Eby, 2012; Stepanyan et al., 2013).

Additionally, it is indicated in literature that the second component, educational attainment, involves issues related to the overall quality of the BL course, the effectiveness of the learning environment, and the success of the course (Stepanyan et al. 2013). According to Stepanyan et al. (2013), the measures related to the quality of the course can be determined by the level of student satisfaction, performance, attainment, quality assurance, student acceptance, and student and instructor assessment and feedback. Moreover, as discussed in previous sections in this chapter, several scholars agree that the success of the BL course can be measured through a series of critical factors related to instructor characteristics, learner characteristics, course characteristics, LMS characteristics, and organizational characteristics. Stepanyan et al. (2013) also concur with other academics, that continuous use of the adopted technology is one of the most important factors contributing to the success of the DL course and hence, educational attainment. Finally, Gundogan & Eby (2012) have claimed that the main production of continuous BL programs is effective learning which must be both active and innovative in nature. However, Margaryan & Littlejohn (2011) advocate that accomplishing an effective learning environment may be hindered by the lack of knowledge that instructors have with regards to the use of the adopted LMS in place.

Lastly, it is suggested in the literature that the third component, professional development and innovation involves issues related to training and professional enhancement (Stepanyan et al., 2013). Gunn (2011) suggests that once adopting e-learning or BL courses, a strategy must be put in place which includes management support of the involved instructors which aids in the improvement of teaching, development and training of instructors to strengthen their technological skills, providing instructors with time release and a reduced existing academic workload to ensure proper time management of the new DL courses, and recycling course materials to ensure future efficiency (Gunn, 2011). This is in line with several critical factors that have been previously discussed within this chapter in detail, which is also necessary for the CIU BL.

In this section I have analyzed the literature on the continuity of BL. My analysis has highlighted that the major shortcomings related to BL continuity literature are that there is insufficient up to date research outlining the major components required to achieve stability and continuity of BL, more so within the context of GCC countries. As previously mentioned in section 1.4, HEIs tend to focus on the initial implementation of BL and ignore continuity, which is also common within the current body of literature (Bokolo Jr et al., 2019). Thus, the literature related to BL continuity is somewhat redundant and more recent research which specifically looks at the various components required to achieve BL continuity is needed.

These shortcomings seem particularly relevant in the context of my own research, as my research focuses on understanding what influences instructors to continue to use BL, specifically within the UAE context. Therefore, in this thesis, I will shed light on the challenges faced and enhancements which instructors' view as necessary to improve the overall quality of their BL courses and their levels of satisfaction, which can be important in improving BL continuity. I will also present instructors' CIU decisions and any conditions related to such as well as identify which critical factors are perceived to be principal in impacting their decisions which can also impact HEIs from achieving BL stability and continuity.



### **3.6 Chapter Summary**

Blended learning has been studied extensively and has been proven to be an effective learning methodology that can be implemented within HEIs to meet the needs of certain students, instructors, and institutions. However, how to successfully implement such BL courses, to reap the stated benefits and increase student performance, is one of utmost importance. The establishment and implementation of frameworks and models are not enough to ensure that institutions can provide BL courses that focus on good quality education. Yet an emphasis on effectiveness of the education delivery mode and its associated critical factors are essential to ensure that HEIs implement BL courses that will indeed provide the same or even better level of education and show an improvement in students' performance. Thus, it is essential to examine the critical factors of implementation and development of BL courses. As a result, a close look at the most common cited critical factors in literature were discussed in detail. The 18 stated critical factors were categorized as follows: learner characteristics, instructor characteristics, LMS characteristics, course characteristics, and organizational characteristics. Each critical factor was therefore defined and a further explanation of how each factor affects some or all of the effectiveness measures was provided. The effectiveness measures include perceived ease of use, perceived usefulness, system use, and user satisfaction. Additionally, a summary table was also provided to ensure a comprehensive outlook on the relationships between the critical factors and the effectiveness measures.

Moreover, a framework had been provided which depicts how all critical factors and effectiveness constructs make up the CIU BL. Research related to the intention to continually use was also provided in detail. Finally, the components related to continuity of a BL course was discussed and how the intention to continually use BL and the associated LMS is an important indicator of effectiveness. Therefore, it is important to keep in mind that for institutions to succeed in the implementation and continuity of BL courses they have to ensure that the critical factors that are proven to affect the effectiveness constructs must be closely examined and dealt with one by one to ensure truly successful BL courses that can reap all the stated benefits and reduce the limitations provided by other learning methodologies.

Furthermore, this study's research questions have been designed to address certain shortcomings identified in the current body of literature, which have been discussed in this chapter. To facilitate this discussion, each research question has been presented below.

RQ (a) What are instructors' experiences regarding their existing blended learning courses?

This research question responds to the critique I made in section 3.2. The advantages and disadvantages of BL, which are portrayed in research, are often a result of changes in students' learning experiences and performance and do not portray instructors' experiences from actual teaching. Also, the advantages and disadvantages presented in literature do not commonly account for the specific country in which BL courses are taken; and thus, there is a lack of cultural benefits or challenges presented. Also, this research question responds to the critique made in section 1.5. There is insufficient BL research which focuses on instructors' perspectives and how the implementation of BL impacts their own experiences.

Thus, to account for these shortcomings, this research question will focus on instructors' BL experiences. In doing so, this research will present their general attitudes and opinions of their current BL courses as well as the benefits experienced and challenges faced, as a result of actual teaching. Also, specific cultural challenges will be showcased.

RQ (b) What are instructors' intentions to continue using blended learning?

This research question responds to the critique I made in section 3.4. Not only does the majority of CIU research focus on students' perspectives, yet, a great deal of CIU research focuses on continuity decisions based on the use of the associated LMS in particular and does not frequently include CIU decisions of a BL course as a whole teaching methodology. Also, this research question responds to the critique I made in section 3.5. There is insufficient up to date research particularly within the context of GCC countries, which outlines the major components required to achieve continuity of BL.

Thus, to account for these shortcomings, this research question will investigate instructors' CIU decisions in terms of teaching a BL course as a whole as well as using the associated LMS. This research question will also present the reasonings behind the instructors' CIU decisions and showcase certain enhancements which are viewed as necessary to improve the quality of BL courses and enhance future BL continuity decisions.

RQ (c) Which critical factors are most influential, from instructors' perceptions, to continue to teach their courses using blended learning in actuality?

This research question accounts for the critique I made in section 3.3. The critical factors in literature are presented as if they are applicable in all cultural contexts and do not consider the nature of students nor the specific country where these BL courses are taught; nor does it account for changes in the learning environment over several years. Thus, to account for such, a re-examination of the critical factors of BL, in terms of impacting instructors' CIU decisions, within the UAE context, will be made and an attempt to uncover cultural continuity critical factors will also be made as a result of responding to this study's research question.

This research question also responds to the critique I made in section 3.4. The critical factors related to the system are the ones most frequently researched and identified as impactful towards CIU decisions. Thus, to account for such, this research question will examine how various critical factors from different dimensions impact instructors' CIU decisions. More so, to respond to a critique made in section 1.5, this research question will also explain the relationship between these critical factors on instructors' CIU BL decisions, which is often disregarded in the current body of literature.

RQ: What influences instructors' intention to continue using blended learning in their courses, within HEIs in the UAE, in the future?

This research question considers a combination of instructors' overall experiences, their continuity decisions, and the perceived principal critical factors which impact their CIU

decisions. It also considers how all these components work together in ultimately influencing instructors to continue using BL in their courses in the future, which is not presented in this manner within the current BL literature. Thus, as this research question encompasses RQs (a), (b), and (c), it will address all the shortcomings discussed above.

## **Chapter 4: Research Methodology**

### **4.1 Introduction**

This chapter will present the methodology used in attaining the necessary data related to the study at hand. This chapter will present the research philosophy which was adopted and will further discuss in detail the research approach, the participants involved in this study, and the instrumentations used. Furthermore, the data collection methods, the questionnaire and interview development, and the data analysis will be discussed. Finally, a summary of the chapter will be provided.

### **4.2 Research Philosophy**

This research study has adopted the pragmatic position. Pragmatism is a research philosophy which focuses on identifying what is “practically useful” (Newton et al., 2020) and how the knowledge uncovered can be used to “address real world problems” (Duram, 2010). The pragmatic epistemological position “includes both subjective and objective elements, dependent upon the research processes and inquiries” while the ontological position adopts the view that there are “different social realities” as an individuals’ reality is derived from their own belief (Onwuegbuzie & Leech, 2005).

Morgan (2014) described three main views which pragmatists widely adopt:

1. “Actions cannot be separated from the situations and contexts in which they occur” (p. 26);
2. “actions are linked to consequences in ways that are open to change” (p. 26); and
3. “actions depend on worldviews that are socially shared sets of beliefs” (p. 27).

Thus, pragmatists believe that people have different experiences even when dealing with similar situations and thus, no two experiences can ever be the same. However, even if individuals’ experiences are different, they can still be socially shared (Kaushik & Welsh, 2019). This is particularly true for this context, as the respondents involved in this study have varying experiences of their adopted BL courses, even though when the data was collected

most BL courses adopted similar blend types. Yet, their experiences can in fact be shared within the context of HEIs within the UAE.

Moreover, pragmatists adopt the view that the research questions are principal to choosing the appropriate research philosophy (Tashakkori, 2002) and that the researcher should use any number of methods which best answers the research problem. Thus, the pragmatic research philosophy is often associated with mixed methods research (Onwuegbuzie & Leech, 2005). This is the case with this research study, as I have used a combination of both qualitative and quantitative data to answer this study's research questions in depth. For example, to respond to RQ (b), I used the quantitative data gathered to gain a general understanding of instructors' BL continuity decisions. I also used the qualitative data gathered to provide further context and an in-depth understanding of their responses by showcasing various reasons and conditions behind their continuity decisions, as well as portray several enhancements which may alter future decisions. In doing so, I found the pragmatic position to be most appropriate for my research. Further detail of why both methods were used will be presented in the subsequent section.

Furthermore, by adopting the pragmatic view, I will try to uncover the realities directly experienced by the people involved and will be presented in a way that highlights that they are relative to the respondents and their context. Any recommendations produced out of this study will attempt to represent the voices of the respondents to decision-makers and also highlight to decision-makers the relative and contingent realities in which BL is undertaken.

### **4.3 Research Approach**

As discussed in Chapter 1, the research questions of this study are as follows:

What influences instructors intention to continue using blended learning in their courses, within HEIs in the UAE, in the future?

- a) What are instructors' experiences regarding their existing blended learning courses?
- b) What are instructors' intentions to continue using blended learning?

c) Which critical factors are most influential, from instructors' perceptions, to continue to teach their courses using blended learning in actuality?

To answer the preceding stated research questions, I have followed the research design outline, depicted below in Figure 4.1. As seen, in the demonstrated outline, the research design has matured from general assumptions at the beginning to a more comprehensive data collection and analysis method (Creswell, 2009).

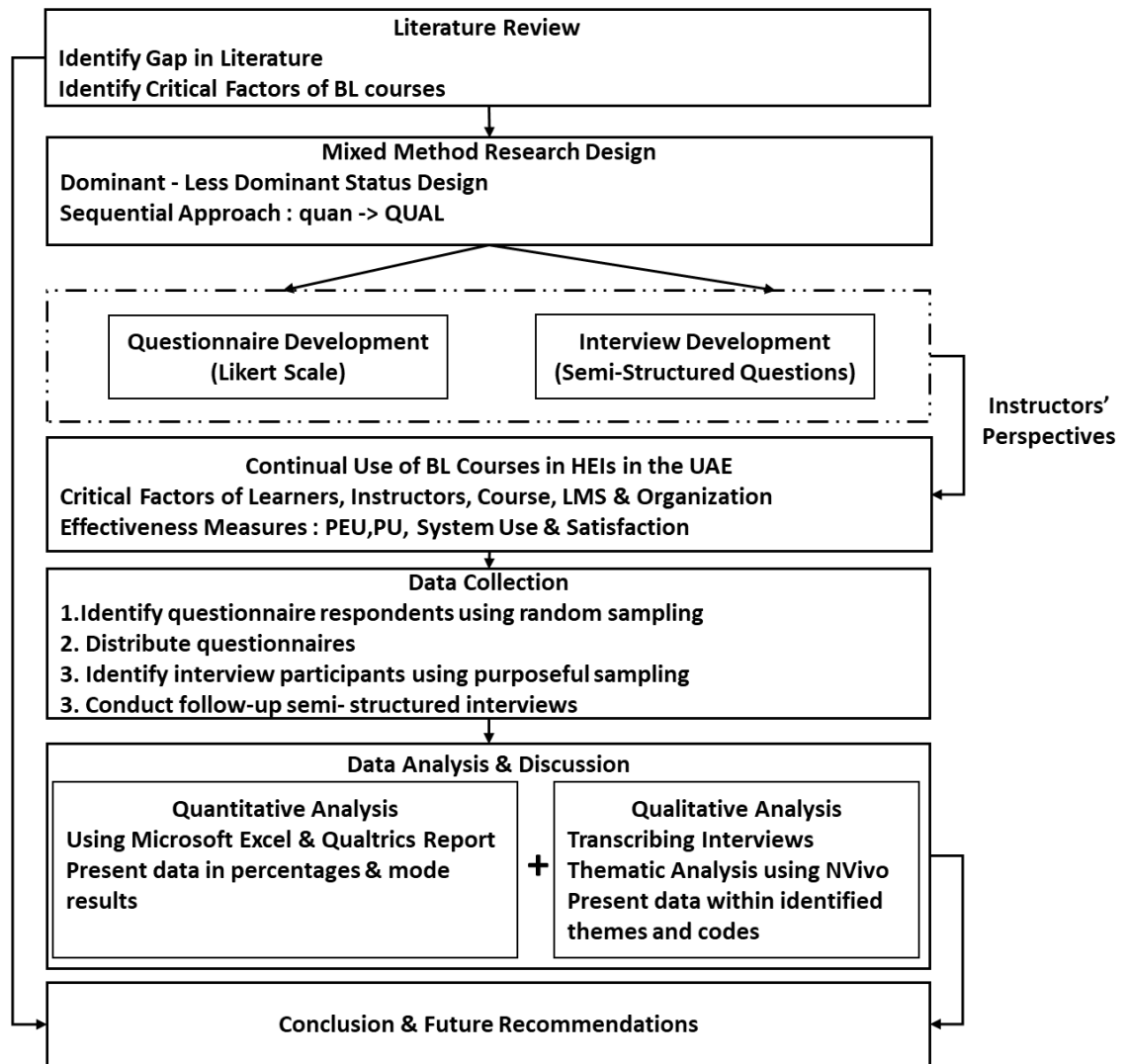


Figure 4.1 Research Outline

This research study adopted a mixed method approach. This approach was found to be most appropriate as a combination of both quantitative and qualitative data are needed to answer this study's research questions. As this research study aims to shed light on instructors' BL experiences, their BL continuity decisions, and identify which critical factors are perceived to be most influential towards their CIU decisions, a large number of quantitative data was initially needed. However, the incorporation of qualitative data was also needed to "build upon the quantitative findings" (Bryman, 2006), as this research study aims to provide comprehensiveness (Vedel et al., 2019) and an in-depth understanding of the situation at hand.

As previously mentioned in section 3.6, this study's research questions were designed to address some of the shortcomings found in the current body of literature; and thus, in order to accomplish such, the use of a mixed methods approach was required. For example, to respond to RQ (a), the use of both quantitative and qualitative data was necessary. The use of quantitative data was needed to gain an overall understanding of instructors' perceptions of their BL courses in terms of perceived usefulness, perceived ease of use, system use, and satisfaction. In doing so, I could understand a large number of instructors' opinions and general experiences. However, as the aim is to provide an in-depth understanding of instructors' current BL experiences, the inclusion of qualitative data was imperative. Using qualitative data methods allowed me to understand instructors' attitudes and opinions of their BL courses by looking at their overall impressions, teaching experiences, and changes in job performance, which are not commonly portrayed within the current body of literature. Moreover, the qualitative data was also required to understand the benefits experienced and challenges faced while teaching their BL courses and shed light on cultural challenges which may be a result of the nature of students within the UAE or the type of BL courses adopted within their HEIs. As previously mentioned in section 3.2, the current body of literature does not sufficiently portray the benefits and challenges of BL within varying cultural contexts, and thus by including qualitative data I am able to address this shortcoming. Thus, using both types of data collection methods were necessary to provide a greater understanding of instructors' BL experiences and provide sufficient context which in turn would impact their BL continuity decisions.



Additionally, concerning RQ (c), a mix of both the quantitative and qualitative data was necessary as it addresses an important shortcoming found in the current body of literature. The majority of research which study the critical factors of BL and CIU decisions often adopt a quantitative approach, to showcase the correlation between such factors and BL CIU decisions, but tend to exclude the incorporation of rich qualitative data which can explain the relationships of these factors on CIU decisions (Al-Marroof et al., 2021a). Thus, by using a mixed methods approach, I am able to deal with this shortcoming and provide an in-depth understanding of the situation at hand. By using quantitative methods, I am able to showcase which critical factors the instructors perceive to be most influential towards their BL continuity decisions and rank them from the most influential to the least. While by incorporating qualitative methods, I am able to portray the relationship between these factors on their CIU decisions and identify a cultural critical factor. Thus, using a mixed methods approach was necessary to respond to this research question in-depth.

Moreover, this research study had been carried out using a qualitative dominant mixed method approach. The chosen research method is deemed appropriate as when incorporating quantitative methods, a much larger number of participants can be reached to provide their opinions relating to the importance of the critical factors, unlike when using qualitative methods where participant sample size is limited. Additionally, as all critical factors are deemed important to the effectiveness of BL courses, the use of quantitative methods can allow for the ability of specific prioritization and ranking of the critical factors unlike when doing so using qualitative methods, which cannot be done in the same manner of specificity. Consequently, adding descriptive data to the quantitative analysis will allow for a clearer and in-depth understanding of the participants' attitudes and outlooks regarding their BL courses and their intentions for continual use, which will in turn provide a stronger analysis than if only a single collection method was used (Denscombe, 2007; Johnson & Onwuegbuzie, 2004).

In addition, I had chosen to follow a Qualitative Dominant Status Design which followed a Sequential Strategy. By following the sequential approach, the quantitative data

collection was conducted first and then followed by the qualitative data collection, symbolized as “quan→QUAL” (Guest, 2013; Morse, 1991; Tashakkori & Teddlie, 2006). Generally, initiating with the collection of quantitative data first, allows researchers the ability to capture the participants’ points of views and experiences within given response categories (Patton, 2002) and allows for the ability of the results of the data analysis to be generalized (Yilmaz, 2003). Consequently, following up with the use of qualitative data collection methods further allows for the collection of a robust amount of critical and rich data, an in-depth view of the situation at hand, and further clarification of previously attained quantitative data (Tracy, 2013, p.5). Thus, I had specifically chosen to follow the quan→QUAL sequential approach, as the collection of the quantitative data first was necessary to provide me with a larger set of data which encompassed a holistic overview of the participants’ overall opinions regarding the importance of the critical factors related to their BL courses. Additionally, it allowed me to gain an overall view of the participants’ intentions to continuously teach their BL courses. Furthermore, the larger number of participants, which had taken part in the quantitative data collection method, enabled me to not only gain a larger data set for analysis purposes yet also allowed me to identify a number of participants to take part in the qualitative data collection method. Additionally, by secondly collecting the qualitative data, it further clarified how the issue at hand was viewed in the eyes of the participants (Kaplan & Shaw, 2004; Tracy, 2013) and enabled further understanding of the reasons behind the answers provided earlier using the quantitative data collection method.

Furthermore, the qualitative data collection had a greater level of importance than the quantitative as this study examines instructors’ behavioral intentions and why certain critical factors are perceived to have greater influence on their behavioral decisions. Thus, this can be better captured using a qualitative approach such as interviews which are able to provide a more extensive comprehension of the subject matter, unlike the use of quantitative methods (Stewart et al., 2008). By choosing the qualitative data to be the dominant component of this research study, I had the opportunity of gaining an in-depth understanding of instructors’ attitudes and perspectives related to their BL courses, their reasons regarding their intentions to continually teach their BL courses, and further comprehending why certain critical factors

were perceived to impact their continuity decisions. Furthermore, the emphasis on the qualitative data collection had allowed me the opportunity to additionally understand cultural challenges, gather necessary enhancements which could increase instructors' level of satisfaction which may lead to a greater intention to continually use BL, and identify a cultural critical factor.

#### **4.4 Sample Selection & Participants**

The chosen sample included instructors who are employed at HEIs within the UAE and teach a BL course. The HEIs involved are in differing cities such as Abu Dhabi, Al Ain, Dubai, Sharjah, Ajman, and Ras Al Khaimah. In order to ensure that the sample represented the larger population, two main conditions had been put in place regarding the sampling process, which include: (1) chosen instructors must be from varying HEIs within the mentioned cities and (2) the HEIs must be from a mix of public and private universities. Additionally, which departments, such BL courses take place in, are irrespective to the study at hand, yet an attempt, to have a mix of subject matters to be able to create a general conclusion had been made, yet it was not a main condition of the sampling process.

In order to conduct my research study, I had first applied a random sampling technique. I had chosen this sampling technique due to the knowledge that all courses within HEIs were being taught using BL, at the time of the data collection, due to the Covid-19 pandemic. Thus, I had been able to choose the participants randomly as no limitations were set such as the type of institution in which the participants were currently working in nor the specific subject matter which they taught. Therefore, the questionnaire was sent to instructors who were teaching a BL course within 34 different HEIs in the UAE and the sample size included 319 instructors. In this case, the chosen sample size was deemed appropriate as "it ensures that the sample will be highly rich in terms of the constituencies and diversity it represents" (Ritchie & Lewis, 2003, p. 85).

Second, I applied a purposeful sampling technique to choose the participants who took part in the follow-up interview. Moreover, the sample size of the follow-up interviews

included 21 instructors. The demographic of the instructors who took part in the interview is found below in Table 4.1.

<b>Participants Names (Pseudonyms)</b>	<b>Previous DL Teaching Experience</b>	<b>Course Subject</b>	<b>Institution Type</b>
Albert	No	Architecture	Private
Giovanni	No	Software Engineering	Public
Maged	Yes	Finance	Private
Grace	Yes	Education	Public
Shannon	No	Emirates Studies	Private
David	No	English	Public
Catherine	Yes	Law	Public
Ethan	Yes	Math	Private
Mohamed	Yes	Accounting	Private
Fernando	Yes	Emergency Management	Public
Jerry	Yes	Social Entrepreneurship	Private
Helena	No	Programming & Networking	Private
Aiden	Yes	Psychology	Private
Kevin	No	International Relations	Private
Ryan	No	Economics	Private
Lara	No	Marketing	Private
Lillian	No	Math	Private
Mina	No	Statistics	Public
Christina	No	Nutrition	Private
Wilson	No	History	Private
Fares	No	Computer Science	Public

*Table 4.1 Instructor Demographic*

Table 4.1 shows that out of the 21 participants: 9 are female and 12 are male; 10 teach STEM courses and 11 teach non-STEM courses; 8 had previous DL teaching experience while 13 had no previous DL teaching experience; and 14 taught BL courses at private HEIs while 7 taught their courses in Public HEIs. This diversity allowed for an in-depth look at varying experiences.

## **4.5 Data Collection Method**

### **4.5.1 Quantitative Data Collection**

To begin the research study, a questionnaire had been conducted. The questionnaire used in this study was web-based as it had been sent out to all the participants' email accounts. Using this method of data collection allowed me to send the questionnaire to a

greater number of participants, as the participants were located in different cities. The questionnaire had been developed following the Likert Scale to ensure that the answers received from the participants would allow for enough relevant data to be collected and ultimately answer the research questions at hand. The use of a multi item scale also enabled the decrease of measurement inaccuracy, possible bias, and misunderstandings (Burns & Grove, 1997; McColl et al., 2001).

#### **4.5.1.1 Questionnaire Development**

The questionnaire which had been used for the purpose of this study is shown in Appendix A and had been designed and adapted based on similar instruments from previous studies to help identify the appropriate questions. The questionnaire items were initially chosen based on their use within the most prominent resources, which are presented below, and which had been reviewed within my literature review. These resources had also been used by several other scholars to measure the identified critical factors, the four effectiveness measures, and BL continuity decisions described in Chapter 3. This had provided me with confidence that the items were “good indicators of their concept of interest” (Hyman et al., 2006) as they had been tested numerous times over the years. I had also ensured that the items used represented the respective factors and effectiveness measures in terms of fulfilling their purpose and “representing the concepts full definition” (Hyman et al., 2006). However, as the questionnaire aimed to study 18 critical factors, 4 effectiveness measures, and CIU decisions, the overall length had to be taken into consideration to ensure that the instructors would complete the questionnaire. Therefore, as a result of discussions had with a quality assurance specialist and an instructor to ensure content validity, a few items were combined together due to repetitiveness and others were slightly edited grammatically. This was an important step as I had initially compiled several items related to the various critical factors from various sources and thus some items were repetitive and needed to be omitted. However, I did ensure that the questionnaire items “conveyed the meaning of enquiry as the research intended” (Hyman et al., 2006). As a result of the minimal changes which were made to some of the items, the carefulness of ensuring that all items still represented what they were intended to study, and finalizing the questionnaire with an instructor and a quality

assurance specialist, I believe that there were no impacts of adapting these items to this study's questionnaire.

The specific items in the questionnaire were adopted from the following sources:

- Learner Characteristics: Items related to Learner Computer Anxiety factor were adopted from Loyd & Gressard (1984); Learner Technological Experience factor was adopted from Ball & Levy (2008); Learner Self-Efficacy factor was adopted from Murphy et al. (1989); Learner Control factor was adopted from Song et al. (2004); and Learner Personal Innovativeness factor was adopted from Lewis et al. (2003).
- ❖ Items related to these factors were slightly altered grammatically, as the questionnaires which include such factors are most often used to study students' perspectives and not instructors. Thus, the items were grammatically changed from 1<sup>st</sup> person to 3<sup>rd</sup> person. This was similarly done by several scholars (Alhabeeb & Rowley, 2018; Bhuasiri et al., 2012) and thus, gave me reassurance that this was a reasonable course of action. An example of such is as follows:

*"I believe that I have the necessary skills to learn independently" to "Students have the necessary skills to learn independently".*

I do acknowledge that there may be unknown impacts of adaptation, with these specific factors, when shifting from the view of an individual student to an individual instructor.

- ❖ Some items were omitted due to repetitiveness found within varying sources studying the same factors.

For example, some items used to study Learner Computer Anxiety are as follows:

*"I find working with a computer difficult"*

*"I find working with a computer challenging"*

*"I find working with a computer very hard"*

Thus, due to repetition, I chose the item “*I find working with a computer difficult*” and edited it grammatically to “*Students find working with a computer difficult*”.

- Instructor Characteristics: Items related to Instructor Attitude factor were adopted from: Webster & Hackley (1997); Instructor Teaching & Learning Style factor was adopted from Sun et al. (2008); Instructor Control factor was adopted from both Biner et al. (1994) and Webster & Hackley (1997); Instructors’ Responsiveness factor was adopted from Sun et al. (2008); and Academic Workload & Time Allocation was adopted from Ibrahim & Nat (2019).

- ❖ Some items related to Instructor Attitude and Academic Workload & Time Allocation were slightly edited as they had been originally used within e-learning research. Thus, the term “e-learning” was replaced with “blended learning “. An example of such is as follows:

*“I believe the e-learning course is useful” to “I believe the blended learning course is useful”.*

- ❖ Two items related to Instructor Teaching & Learning Style were combined together, to account for the overall questionnaire length.

The items edited are as follows:

*“I can provide learners with a range of teaching approaches that allow them to choose one that suits their learning goals”.*

*“I can provide learners with a range of teaching approaches that can be personalized to their learning needs”.*

This was altered to:

*“I can provide learners with a range of teaching approaches that allow them to choose one that suits their learning goals and can be personalized to their learning needs.”*

- ❖ All items related to the other factors were not changed as they were found to be suitable.

- LMS characteristics: All items related to System Quality factor, Information Quality factor, and Service Quality factor were adopted from DeLone & Mc Lean (2003) and Wang et al. (2005).
  - ❖ All items were not changed as they were found to be suitable.
- Course Characteristics: Items related to Material Quality & Learning Resources factor and Course Flexibility factor were adopted from Arbaugh (2000) and Wang et al. (2005).
  - ❖ All items were not changed as they were found to be suitable.
- Organization Characteristics: Items related to Organizational Support factor and Training & Development factor were adopted from Sumner and Hostetler (1999); items related to Assessment and Feedback were adopted from (Calderon et al., 2012).
  - ❖ Some items related to Assessment and Feedback were shortened. This was due to statement length as well as avoiding any pre-assumptions as to how instructors provide their assessment and feedback to their HEIs. An example of such is as follows:
 

*“I participate in the course assessment survey and evaluate the learners who took the blended learning course”* to *“I evaluate the learners who took the blended learning course”*.
  - ❖ All items related to the other factors were not changed as they were found to be suitable.
- Effectiveness Measures: Items related to Perceived Usefulness and Perceived Ease of Use were adopted from Liaw et al. (2006) and Venkatesh & Davis (2000); items related to System Use were adopted from Pituch & Lee (2006); and items related to User Satisfaction were adapted from Arbaugh (2000).
  - ❖ All items were not changed as they were found to be suitable.
- Continuous Intention to Use: Items related to this measure were adopted from Al-Busaidi (2012); Hung et al. (2011); and Lee (2010).



- ❖ All items were not changed as they were found to be suitable.

The questionnaire was comprised of two main sections.

- The first section involved demographic information. The questionnaire involved questions related to gender, professional title, course subject, and prior experience teaching a DL course.
- The second section involved three sub-sections:
  - a) The first sub-section included the 18 critical factors, which relate to the 5 dimensions: Learner, Instructor, LMS, Course, and Organization, that had been identified in the literature review chapter. It explored the users' perceptions on which critical factors affect their intention to continually teach their BL courses and continually use the associated LMS. To accomplish so, a Likert scale was used. The five-point Likert scale included: "*Extremely Important*" with a score of (5) to "*Not Important*" with a score of (1).
  - b) The second sub-section consisted of the effectiveness measures constructs: perceived usefulness, perceived ease of use, system use, and users' satisfaction. A five-point Likert scale was used to rank their opinions regarding their BL courses. The scale was divided into: "*Strongly Agree*" with score of (5) to "*Strongly Disagree*" with score of (1).
  - c) The third sub-section consisted of instruments aiming to understand the participants intentions to continually teach their BL course and continually use the associated LMS. A four-point Likert scale was used, which was divided into: "*Strongly Agree*" with a score of (4) to "*Strongly Disagree*" with a score of (1).

#### **4.5.1.2 Questionnaire Validity & Reliability**

When designing the questionnaire in this research study, issues related to reliability and validity were addressed. In order to ensure validity of the questionnaire, a factor analysis test was conducted. Since the questionnaire questions were adapted from instruments found

in published studies, the validity of the designed questionnaire in this study was re-assessed. Thus, a confirmatory factor analysis was conducted after receiving the results from the participants. The questionnaire resulted:  $\chi^2 / df = 2,18$ , CFI = 0.80, TLI = 0.80, and RMSEA = 0.06. Also, the Chi-Square statistics  $\chi^2 = 12728.862$ ,  $p < 0.05$ . Hence, the results validate the questionnaire and shows the good fit of variables in the questionnaire with statistical significance.

Moreover, in order to ensure validity of the content presented in the questionnaire, peer-reviewing the specific questions' content was necessary (Bryman, 2008). Thus, by ensuring validity of the questionnaire used within this study, the questionnaire statements had been peer-reviewed by an instructor and a quality assurance specialist whom both work at HEIs. I had initially provided them with the draft questionnaire which had been developed and asked both to provide me with their feedback in terms of clarity, language, and overall coherency. The main feedback provided to me was related to the overall length of the questionnaire and the repetitiveness of certain statements which attributed to some critical factors. I was asked to make certain changes such as shortening the questionnaire to ensure that all respondents would be willing to complete it and slightly edit certain statements in terms of clarity. Once, I received their feedback, I began making the necessary changes by shortening some of the statements to ensure that they were concise and easily understandable, removing other statements related to certain critical factors which had been viewed as repetitive, and combining a few other statements together to ensure that the questionnaire was not too lengthy and that the participants would not get tiresome of the questions and would complete the questionnaire.

Furthermore, in order to ensure reliability of the questionnaire used in this research study, I had performed internal reliability tests. The reliability had been evaluated by assessing the internal consistency of the items representing each factor using Cronbach's alpha. In order to prove reliable, the Cronbach's alpha must return a high value of  $>0.7$  (Bryman, 2008). Thus, the questionnaire in this study proved to be reliable as the Cronbach's alpha of the questionnaire returned the following results : Learner Factors = 0.84; Instructor Factors = 0.89; Course Factors = 0.86; System Factors = 0.93; Organizational Factors = 0.95;

Effectiveness Measures = 0.93 & Continuous Intention to Use = 0.91. The Cronbach's alpha of the whole questionnaire returned a result of 0.97, hence, indicating a strong internal reliability and consistency.

### **4.5.1.3 Questionnaire Administration**

The questionnaire had been sent out to instructors who were asked to participate in the research study. In order to gather the participants information, I had visited several HEIs' official websites to compile a list of their email accounts. I randomly selected instructors from differing types of HEIs (public and private), within varying cities, whom are also part of different colleges within such institutions. Additionally, in order to send out my questionnaire to instructors in larger institutions, I had to gain ethical approvals through the submission of IRB applications to 5 different HEIs. Following my initial identification of instructors, invitations to take part in the questionnaire had been sent out by e-mail (Appendix C), which had been approved by the Ethics Research Committee (Appendix G). The invitation, which had been sent out, included the research title, a summary of the research and its objectives, and their rights if they chose to complete the questionnaire. Hence, by creating a web-based questionnaire, I was able to gather a larger sample as instructors lived in several different cities. I initially received a total of 337 responses; however, 18 questionnaires were found to be incomplete and were removed from the sample, thus the final sample size of the questionnaire was 319 respondents.

## **4.5.2 Qualitative Collection Method**

To further understand the instructors' attitudes and perceptions related to continual use of their BL course and comprehend why certain critical factors were perceived to be most influential to their decisions, follow-up interviews had been conducted after the participants had completed the questionnaires.

### **4.5.2.1 Interview Development**

I had chosen to follow a semi-structured interview approach as it allowed me to gather specific answers for my research needs while still allowing the conversation to be informal enough in which follow-up questions and other unexpected responses were gathered (Minichiello et al., 2008). A greater portion of research which focuses on instructors or teachers attitudes towards BL or e-learning attempt to gather data through questionnaires (Demirci, 2009; Teo, 2008) rather than qualitative data which can better explain the participants' opinions and feelings. In addition, Al-Marroof et al. (2021a) suggested that more mixed methods research, which include interviews, should be of use to further understand the relationship between critical factors and continuity of BL, as a result of the evident CIU BL research which emphasizes on the use of quantitative research. Thus, by focusing on the qualitative analysis, I was able to accomplish such and gain an in-depth understanding of why certain critical factors were perceived to be more principal to instructors' BL continuity decisions.

The interview which was administered is presented in Appendix B. The interview questions asked aimed to gather information regarding instructors' perceptions related to:

- Attitudes towards their BL courses
- Benefits of their BL courses
- Possible challenges they may have faced while teaching their BL courses
- Identification of enhancements needed to improve their BL courses
- Providing a deeper understanding behind reasoning of their decisions to continually teach their BL courses and use the associated LMS
- Opinions towards the possible adoption of further BL courses and programs at their respective HEIs in the future
- Explanation regarding the perceived most influential critical factors
- Exploration of additional principal critical factors

#### **4.5.2.2 Dependability, Credibility, and Ethics of Interview**

When conducting the interview, certain issues such as dependability, credibility, and ethical principles must be kept in mind and implemented. To ensure dependability, any type

of ambiguity must be avoided (Ritchie & Lewis, 2003). Hence, the questions within the interviews were asked in a clear manner and were structured in a methodological way which was clearly understood by all the participants (Oppenheim, 1992; Saunders et al., 2003). Moreover, in order to achieve credibility, the interview's style and specific questions had been peer reviewed (Bryman, 2008) by an instructor and quality assurance specialist, to ensure that the questions being asked were unbiased in nature (Kumar, 2010).

Furthermore, the ethical principles which were taken into account include: receiving participants' consent to use the data collected for the purpose of the study at hand, debriefing the participants with an overview of the research study and its objectives before the interview was conducted (Bazeley, 2002), and keeping the participants' personal information confidential unless certain characteristics had been previously agreed to disclose (Britten, 1999).

#### **4.5.2.3 Interview Administration**

Once the responses from the questionnaire had been received, I followed a purposeful sampling technique to identify the participants who would take part in the follow-up interview. The use of purposive sampling is very commonly used in qualitative research. A purposive sampling approach is used when a sample is chosen due to specific characteristics which aid in fulfilling what the researcher is aiming to study. Thus, Ritchie & Lewis (2003) state that "participants are chosen with a purpose to represent a location or type in relation to a key criterion" (p. 79). I selected the participants based on their employment in varying HEIs and based on them teaching BL courses in varying course subjects, as I wanted to ensure that a diverse sample would be chosen which would allow me to provide a generalizable conclusion. I initially selected 24 participants, however 3 had declined my invitation as they were pre-occupied with final exams and grading. In this case, the sample size was 21 participants. This sample size was deemed acceptable, as it is recommended that interviews for the nature of research studies contain a sample size between 5 to 25 participants (Polkinghorne, 1989). The sample was diverse in nature as the participants were from 20 varying HEIs, a mix of both private and public, and taught 20 varying course subjects. The participants were also mixed in terms of gender and professional titles. Following the

identification of such instructors, invitations to take part in the follow-up interviews were also sent out by e-mail (Appendix D), along with a participant consent form (Appendix F) which had been approved by the Ethics Research Committee. I had also explained to the participants beforehand the type of questions that would be asked in the interview.

I had chosen to administrate individual interviews as it would allow me to gain an in-depth knowledge of the participants' thoughts and experiences (Chilban, 1996; Johnson, 2002; Rubin & Rubin, 2005). Hence, the follow-up interviews had been performed using Zoom as in-person interviews was considered a difficult option as the participants were from varying cities and instructors were no longer spending a considerable amount of time on campus as they were teaching parts of their lectures online.

Before the start of the interview, I had ensured that I was provided with consent to video-record the interviews. I had also briefly provided an overview of the research study, explained the purpose of the interview, and asked if the participants had any questions before I began recording. As the recording started and I began asking the first interview question, I started taking down notes of the general responses made by the participants especially those that I had found to be of importance or that I may have wanted to ask about again. I ensured that throughout the interview, I took on the role of being an "active listener" (Radnor, 2002) and encouraged the participants to provide further explanations to their opinions. As the interview progressed, I had also asked different follow-up questions, mainly in regards of asking for further elaboration of the responses provided by the participants. As I had finished the last interview question, I had asked if there were any questions, they believed I might have missed, or if they had any further comments they wanted to make. All the participants indicated that I had covered all the necessary points as the questions asked were comprehensive. Once the interview was completed, I thanked the participants for their time and cooperation and provided them with the option of sending them their recorded interviews to their email addresses, to ensure that the validity of the interview process was upheld (Brenner, 2006). The follow-up interviews ranged anywhere between 40 to 70 minutes. I had realized that participants with previous experience or positive experience teaching their BL

course had shorter interview times than those who did not have previous experience or felt that their experience was quite challenging.

## **4.6 Data Analysis Method**

As this research study contains both quantitative and qualitative data, different data analysis methods, which are deemed acceptable for the nature of the data, had been used.

### **4.6.1 Quantitative Analysis**

In order to analyze the numerical data received from the responses of the questionnaires, Microsoft Excel was used as well as the analysis provided by Qualtrics. The data has been presented in pie and bar charts, percentages by category, and average mode results of the responses received. (Appendix I also presents the data in terms of frequency of responses). As the data is not normally distributed (as a result of its skewness), the mode was chosen to calculate central tendency (see section 5.1 for more details). The use of the mode has allowed me to present the data in a clearer manner of ranking and prioritization and will allow me to better respond to my research questions, which focus on presenting instructors most perceived principal critical factors. Further details regarding why the mode was chosen to calculate central tendency, how the average mode results were calculated, and why the quantitative data was presented in this manner will be provided in sections 5.1 and 5.3.

The quantitative analysis will first present the instructors' demographic information (section 5.2) including their gender, professional titles, teaching department (STEM vs non-STEM), and their previous DL experience. The quantitative analysis will then present the rankings of the 18 critical factors, which are perceived to influence instructors' continuity decisions, and a summarized figure showing those ranked from the most principal to the least will be showcased (section 5.3). The critical factors are categorized (in terms of principal, valuable, moderately beneficial, not as central, and not valuable) based on the average mode results which correspond to the ranking in the questionnaire. Further information regarding how the critical factors were categorized will be presented in section 5.3. Additionally, the quantitative analysis will depict the instructors' perspectives of their BL courses within four

effectiveness measures :perceived ease of use, perceived usefulness, system use, and satisfaction (section 5.4), which were previously defined in Chapter 3, and will showcase the instructors' BL continuity decisions (section 5.5). The instructors' CIU BL decisions will also be presented in terms of STEM vs non-STEM as well as previous DL teaching experience. The findings of this chapter will also be presented in the discussion chapter, Chapter 8.

### **4.6.2 Qualitative Analysis**

To analyze the qualitative data, I followed Braun and Clarke's (2006) six-step thematic analysis process. The steps include: "(1) familiarization with the data, (2) generating codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) writing report" (Braun & Clarke, 2006).

#### Step 1: Familiarization with the data

I first transcribed all the recorded interviews, after each interview was conducted and had also typed out the notes, which I had written down during the interviews, in a comment section. I read the transcripts while re-listening to the interviews to ensure that they were accurate as sometimes the participants' voices were not as loud. I had also re-read all the transcripts a number of times once all the interviews were finalized and highlighted any interesting points which were made by the participants. This had helped me familiarize myself with the data even more and allowed me to begin the second process of coding.

#### Step 2: Generating codes

I began disassembling the data to identify codes which group commonalities as well as patterns. At this point, I had identified many codes through my own analysis, however, to identify more I used NVivo. To do so, I uploaded all the transcripts into NVivo and used the *code* function to identify codes and repeated words. I repeated the coding process another time, to avoid valuable information being missed and ensure that all codes within the data were identified. This process had yielded a large number of codes. I later used NVivo to form various category codes, by joining a number of the identified codes based on the connections between them. For example: the "student engagement" category code included the codes:



“distraction”, “interest”, “engage”, “participate”, and “attention”; while the “enhances pedagogy” category code included the codes :“technology”, “teaching”, “skills”, “IT”, “online class”, “mastering skills”, and “teaching online”.

### Step 3: Searching for themes

To begin this step, I first identified three general master themes: (1) Experiences (2) BL Continuity and (3) Critical Factors, which each relate to this study’s research questions. I found this to be the easiest manner to initiate this step, particularly that Braun and Clarke (2006) explain that “a theme captures something important about the data in relation to a research question and represents some level of patterned response within the data set” (p.10). I then reassembled the codes and category codes under the general themes, by grouping them based on patterns and similar meanings. This had allowed me to get a general idea of how the research questions would be answered using the qualitative data.

However, as the three general themes were too broad and to make more sense of the data, I broke down the general master themes into various main themes and sub-themes. To identify the main and sub-themes, I used a combination of both an inductive and deductive process. With the general theme “Experiences”, I used an inductive process as the themes were identified from the data itself and I had no pre-assumptions of the themes which would emerge. I had identified a number of main themes, as I was reading the transcripts during the 1st step of my data analysis process, as the re-occurring of such themes were quite clear. For example, I began breaking up the master theme “Experiences” into various main themes such as “Instructors’ Perceptions”, “Benefits of BL”, “Challenges of BL”, and “Enhancements for Improvement of BL Courses”.

While, with the two other master themes, I predominantly used a deductive process, as the themes which had emerged were related to the literature reviewed. For example, with the master theme “Critical Factors”, the sub-themes which were identified were related to many of the critical factors which were presented in the literature review chapter. However, I did examine the data carefully to ensure that no important and unexpected sub-themes were left out. I believe this was done accurately, as the sub-themes “Student Engagement” and “Course Type” were identified, as a result of the interviews conducted, even though they

were not identified within this study's literature review. At the end of this stage, I had identified a total of 30 sub-themes corresponding to 11 main themes.

#### Step 4: Reviewing Themes

To begin this step, I re-read the transcripts many times. This was necessary as many code words were related to different sub-themes such as for example, "engage" which related to 14 sub-themes corresponding to 6 main themes. I then gathered together the data which corresponded to every sub-theme by cutting and pasting from the transcripts. I then checked whether the themes were portraying the assigned data. I also continuously reviewed whether there was too much information or any overlapping data within one theme and if any more themes needed to be broken up into more sub-themes. For example, at this stage I had broken down "Instructors' Perceptions" into three sub-themes: "Overall Impressions and Attitudes", "Impact on Teaching Experiences", and "Changes in Job Performance". At the end of this stage, I had identified a total of 38 different sub-themes within 11 main themes.

#### Step 5: Defining and naming themes

To begin this step, I reviewed the sub-themes which I had identified and later edited their names and wrote down what each represented. This had helped me identify certain commonalities between them and as a result, I had merged a few sub-themes together. For example, I initially identified "improved IT skills" and "improved teaching skills" as 2 separate sub-themes, however, upon re-reviewing the transcripts and re-examining the purpose of the theme, I combined them under one sub-theme named "improved job-related skills". I then created a thematic map which also helped further refine the themes in terms of editing to ensure sufficient distinction could be made between the theme's names. For example, I had two sub-themes named "organizational support" which corresponded to different major themes and as a result I edited one of the names to "additional organizational support" to ensure that the theme represented what will be portrayed. This refining process had resulted in 34 sub-themes corresponding to 11 main themes. The final thematic map can be found below in Figure 4.2.

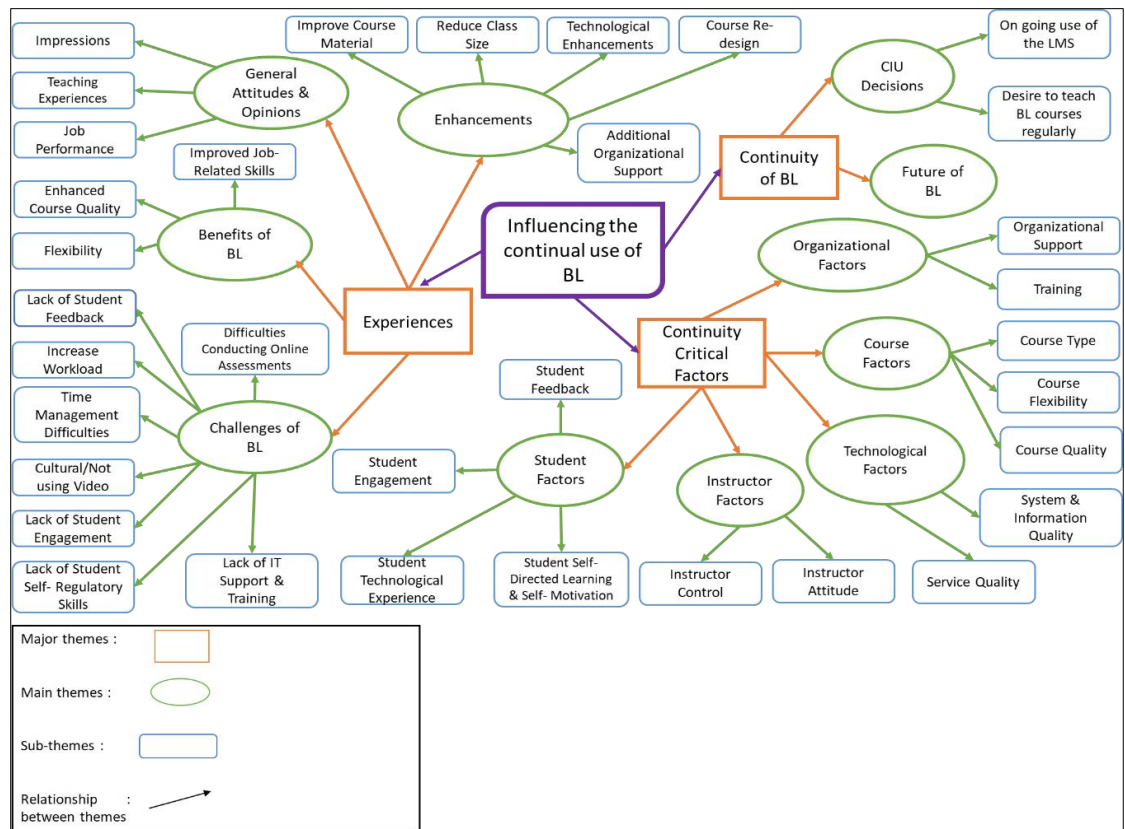


Figure 4.2 Thematic Map

Moreover, as a form of peer check, I discussed the data and the identified themes with an instructor, who teaches a BL course in the UAE. Upon reviewing my analysis, he had concurred with it and proposed that no more themes be merged together to ensure that I would be able to clearly portray the participants' stories.

#### Step 6: Writing report

The analysis of the qualitative data is presented in this chapter and the succeeding chapter. I had decided to present the data in two parts as the data looks at different points in time. The first part of the qualitative data presents the participants' current experiences while the second part of the data showcases the participants' continuity decisions for future BL courses and the critical factors which impact those decisions. Also, as previously mentioned, I had used different data analysis techniques, the first part of the qualitative data followed an inductive process while the second part predominantly followed a deductive one.

Thus, the qualitative data will be presented as follows:

- The instructor's perceptions category (presented in chapter 6) has four embedded themes which include general attitudes and opinions, benefits of the BL course, challenges of the BL course, and enhancements of the BL course.
- The continuity of BL has three embedded themes (presented in chapter 7) which include: on-going use of LMS, continuous teaching of BL courses, and future development of BL courses within HEIs in the UAE.
- The critical factors (presented in chapter 7) have been split into five themes: technological factors, student factors, instructor factors, course factors, and organizational factors.

Furthermore, Yin (2011), who had created Yin's 5 phase of analysis, proposes that the data analysis phase ends with the conclusion of the study and not before. Thus, as this research study uses a mixed methods approach, the findings will be presented in the discussion chapter, Chapter 8, and the conclusions and recommendations for future research will be presented in Chapter 9.

## **4.7 Chapter Summary**

The research methodology, which I had followed for this research study was a mixed method approach, which followed a qualitative dominant design. The participants, who took part in this study, are instructors who live in the UAE and teach BL courses in different HEIs within varying cities. The HEIs were also a mix of both private and public institutions. Thus, this type of sample had allowed me to have a greater representation of the population.

In order to conduct the research study, two forms of data collection methods were used. Firstly, I used a web-based questionnaire which was sent out to all participants through their email accounts. The questionnaire was comprised of three main sections and had been developed and adopted using similar instruments from known research studies. I had received a total of 319 responses from the distributed questionnaire. Secondly, I conducted semi-structured follow-up interviews with 21 participants. The administration of interviews had

allowed me to further understand the whys and how's of the responses received from the administered questionnaires, gain a deeper understanding of their intentions to continually teach their BL courses, and elaborate why certain critical factors were perceived as more influential to their decisions than others.

Furthermore, in order to analyze the quantitative data, Microsoft Excel was used to present the responses in terms of percentages and mode of the responses in respect to every section of the questionnaire. Moreover, in order to analyze the qualitative data, a thematic analysis was followed and NVivo 12 was used to identify specific codes and themes.

## **Chapter 5: Quantitative Data Analysis**

This chapter initiates the analysis phase of this research study and presents the various quantitative data collected representing instructors' intentions to continually teach their BL courses and use the associated LMS, as well as the ratings of the critical factors which are perceived to influence their CIU decisions. This chapter has been divided into three sections, based on the coherency of the distributed questionnaire. The first section displays the participants' demographic information including gender, professional title, teaching department, and previous experience. The second section presents the data received from the participants' responses relating to their perception of the level of importance of 18 critical factors to their decisions to continually teach their BL courses and use the associated LMS. A ranking of the critical factors from the perceived most principal to the least had been calculated and presented. The third section explores the participants' thoughts regarding their BL courses in relation to the effectiveness measures. The participants' responses regarding their CIU BL has also been presented.

### **5.1 Data Analysis**

The questionnaire, shown in Appendix A, was distributed to instructors who are currently teaching BL courses at their HEIs in the UAE. The sample size was 319 participants. To initiate the analysis process, the data was collected and calculated using Microsoft Excel. Generally, to analyze quantitative data collected from a Likert scale, the mean, median or mode are most commonly used to measure central tendency (Boone & Boone, 2012). However, the mean is best used when the data is normally distributed (Jamieson, 2004). Hence, all three options were first considered, and the distribution of the data was checked. As the data was found to not be normally distributed (as the data was shown to be positively skewed), the mean could no longer be used in this case. Therefore, the use of either the median or mode was then considered. As I analyzed the data (which is presented in terms of frequency of numbers in Appendix I) using both options, a decision was made to no longer use the median as a large number of critical factors returned the same median value. Thus, prioritization and ranking of the 18 critical factors could not be achieved the way in which is needed for this research study and to answer the research questions. Also,

a number of scholars do argue that the mode should be a more popular opinion as it represents the most frequent response (Charness & Dufwenberg, 2006; Sapienza et al. 2013). Also, for example, Hartwig et al (2020) conducted a meta-analysis and found that using the mode to calculate central tendency was the most unbiased compared to using the mean and median. Thus, the mode had been chosen as the best option to analyze the collected data due to its statistical appropriateness and the ability to allow ranking of the critical factors to be achieved. I also believe that showcasing the most frequent perceptions allow me to better respond to my research question which focuses on portraying instructors' most perceived principal critical factors. Therefore, the data has been presented in pie and stacked bar chart figures, tables with percentages by category, and average mode results.

## 5.2 Instructor Demographics

The following section will present the demographic data of the questionnaire respondents in terms of gender, professional titles, teaching department, and previous DL teaching experience. The following pie charts represent the data in terms of counts and percentages.

### 5.2.1 Gender

The results of the participants' gender are shown below in Figure 5.1

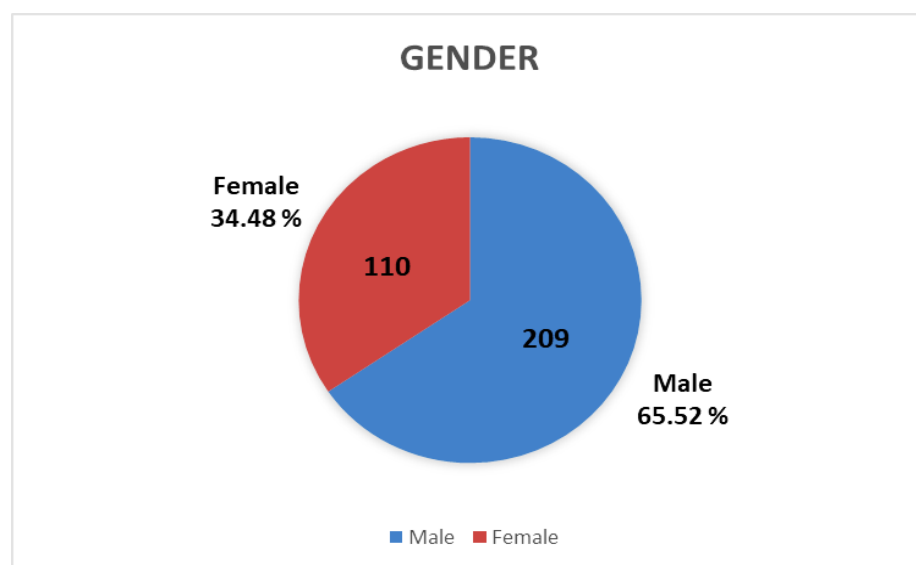
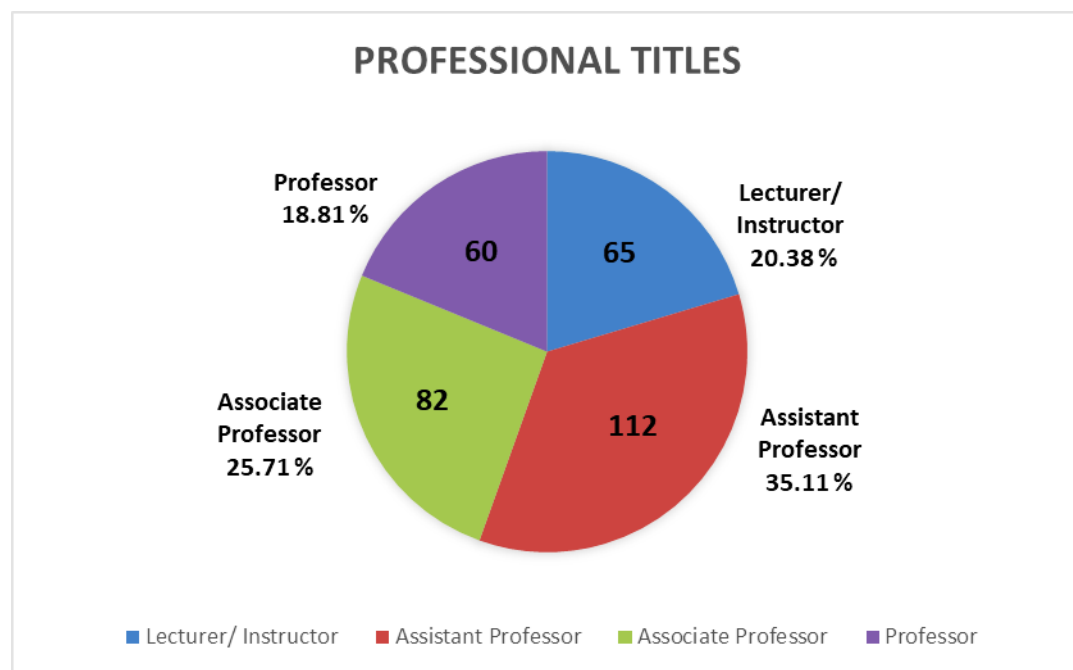


Figure 5.1 Gender of Participants

Figure 5.1 demonstrates that there were 209 males and 110 females, equating a total of 319 respondents. This shows that there was a majority of male respondents compared to female, as the male respondents make up 65.52% of the total number of respondents who took part in the questionnaire.

### 5.2.2 Professional Titles

The participants' professional titles are shown below in Figure 5.2



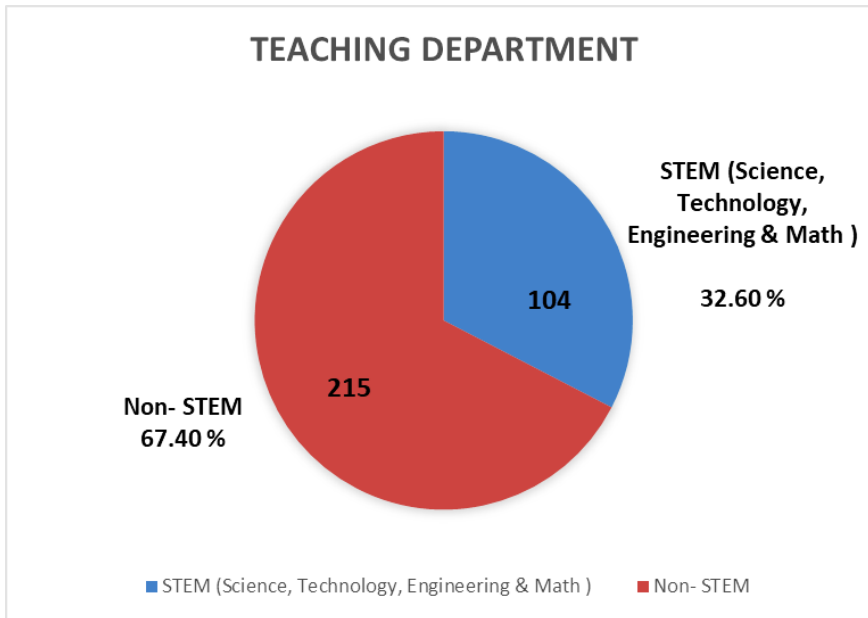
*Figure 5.2 Professional Title of Respondents*

Figure 5.2 shows that out of the 319 respondents, there were 65 lecturers, 112 assistant professors, 82 associate professors, and 60 professors. Thus, the majority of the respondents were assistant professors by 35.11%.

### 5.2.3 Teaching Department

The participants were randomly selected from varying colleges. Figure 5.3 depicts the STEM (Science, Technology, Engineering, and Math) colleges vs non-STEM colleges.





*Figure 5.3 Teaching Department*

Figure 5.3 presents the dispersal of respondents based on the colleges in which they teach their BL courses. 32.60% teach in STEM colleges versus 67.40% who teach in non-STEM colleges. Most of the respondents teach non-STEM courses.

### **5.2.4 Previous Experience**

Previous experience teaching a DL course was not a requirement. The distribution of the answers is depicted below in Figure 5.4.

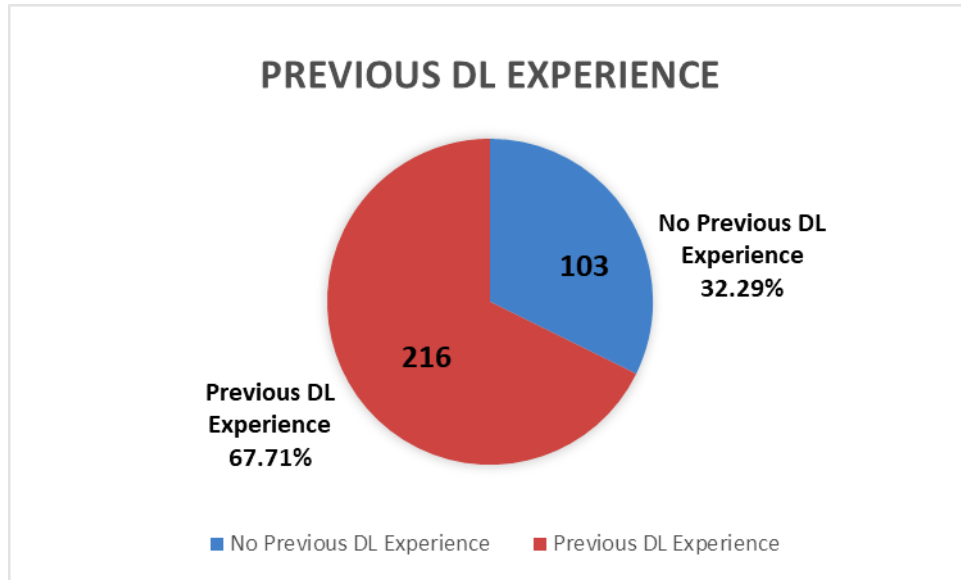


Figure 5.4 Previous Experience

Figure 5.4 shows that out of the 319 respondents, 216 have had previous experience teaching a DL course, which equates to 67.71%.

### 5.3 Critical Factors

The following sections reveal the respondents’ results regarding their perceived importance of 18 critical factors, which have been previously discussed in Chapter 3, and have been grouped into 5 characteristics: learner, instructor, course, LMS, and organization. Appendix I also presents the data in terms of frequency numbers.

The critical factors will be categorized based on the average mode results. To calculate the average mode results, the mode per item is first calculated by choosing the most frequent response based on the ranking categories (ie “*Extremely Important*” with a score of (5) to “*Not Important*” with a score of (1)). Then the average mode is calculated based on the following equation.

$$\text{The average mode} = \frac{\text{mode (item 1)} + \text{mode (item 2)} + \dots + \text{mode (item n)}}{\text{number of items}}$$

The average mode results have been classified to ensure consistency of the discussion and have been presented to show how they correspond to the differences related to the rankings in the questionnaire. The average mode results will be categorized as follows:

- Principal: these are factors with a mode of 4.01 – 5.00 (this corresponds to the ranking of Extremely Important in the questionnaire)
- Valuable: these are factors with a mode of 3.01 – 4.00 (this corresponds to the ranking of Very Important in the questionnaire)
- Moderately Beneficial: these are factors with a mode of 2.01-3.00 (this corresponds to the ranking of Moderately Important in the questionnaire)
- Not as Central: these are factors with a mode of 1.01 – 2.00 (this corresponds to the ranking of Slightly Important in the questionnaire)
- Not Valuable: these are factors with a mode of 0-1.00 (this corresponds to the ranking of Not Important in the questionnaire)

### **5.3.1 Instructor Characteristics**

The following section will present the perceived importance of the critical factors, within the instructor dimension, on the participants' CIU decisions. These factors were identified in the literature and discussed in Chapter 3, section 3.3.1.2. The 5 factors within this dimension include: Instructor Teaching & Learning Style, Instructor Attitude, Instructor Control, Instructor Responsiveness, and Academic Workload & Time Allocation.

#### **5.3.1.1 Instructor Teaching & Learning Style**

Figure 5.5 exhibits the responses relating to the level of importance of Instructor Teaching & Learning Style on instructors' decisions to continually teach their BL courses.

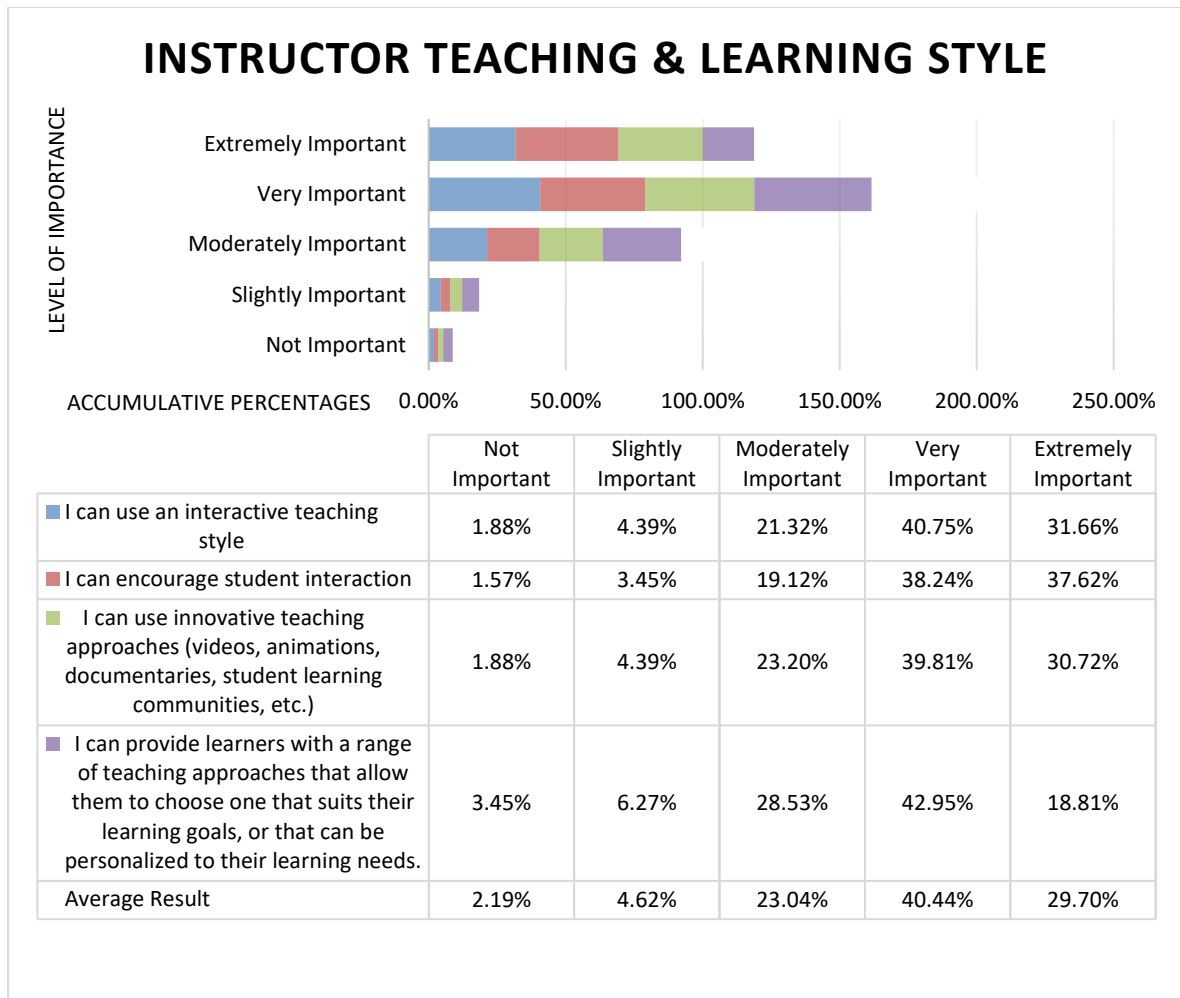


Figure 5.5 Instructor Teaching & Learning Style

As shown in Figure 5.5, the highest average response is 40.44%, (corresponding to 129 instructors) which responded as Very Important. While the lowest average response is 2.19% (corresponding to 7 instructors) which responded as Not Important. Also, this factor resulted in an average mode of 4.0. Thus, indicating that the instructors recognize Instructor Teaching & Learning Style as a *valuable* factor which influences their decisions to continually teach their BL courses and use the associated LMS.

### 5.3.1.2 Instructor Attitude

Figure 5.6 demonstrates the responses relating to the level of importance of Instructor Attitude on instructors' decisions to continually teach their BL courses.

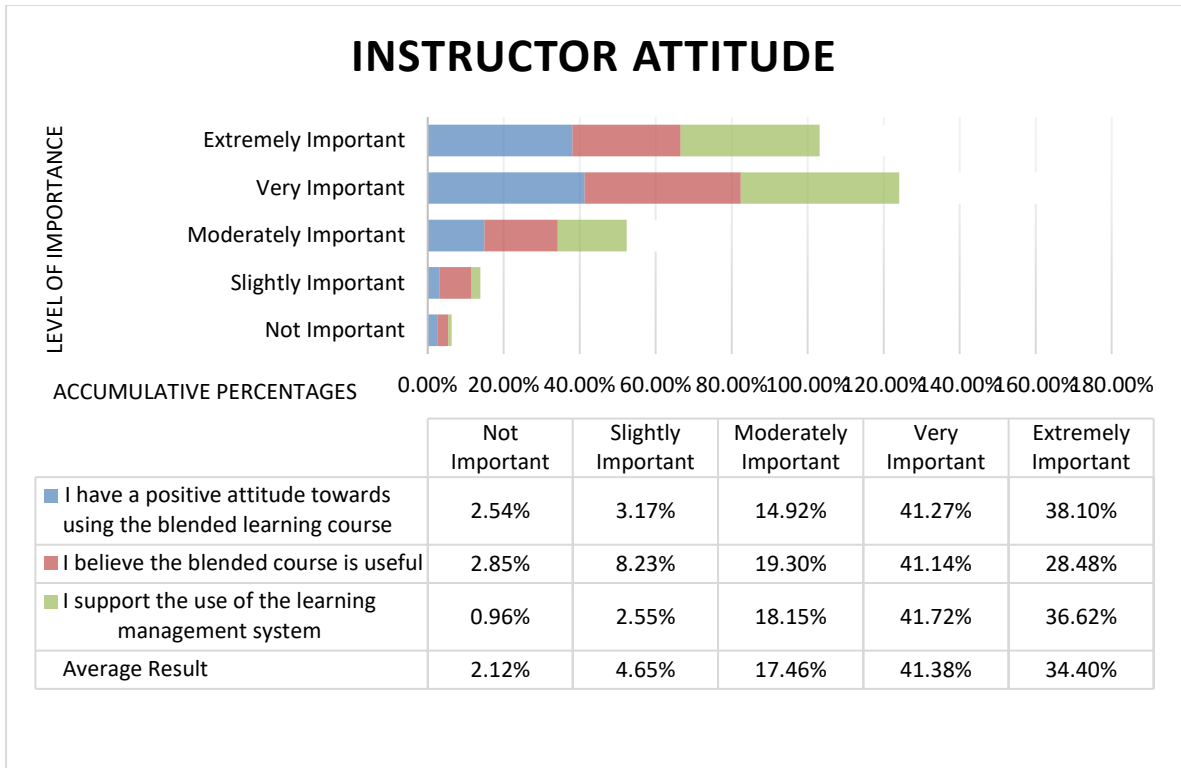


Figure 5.6 Instructor Attitude

As shown in Figure 5.6, the highest average response is 41.38% (corresponding to 132 instructors), which responded as Very Important. While the lowest average response is 2.12% (corresponding to 7 instructors), which responded as Not Important. Also, this factor resulted in an average mode of 4.0. Thus, indicating that the instructors perceive Instructor Attitude as a *valuable* factor which influences their decisions to continually teach their BL courses and use the associated LMS.

### 5.3.1.3 Instructor Control

Figure 5.7 presents the responses relating to the level of importance of Instructor Control on instructors' decisions to continually teach their BL courses.

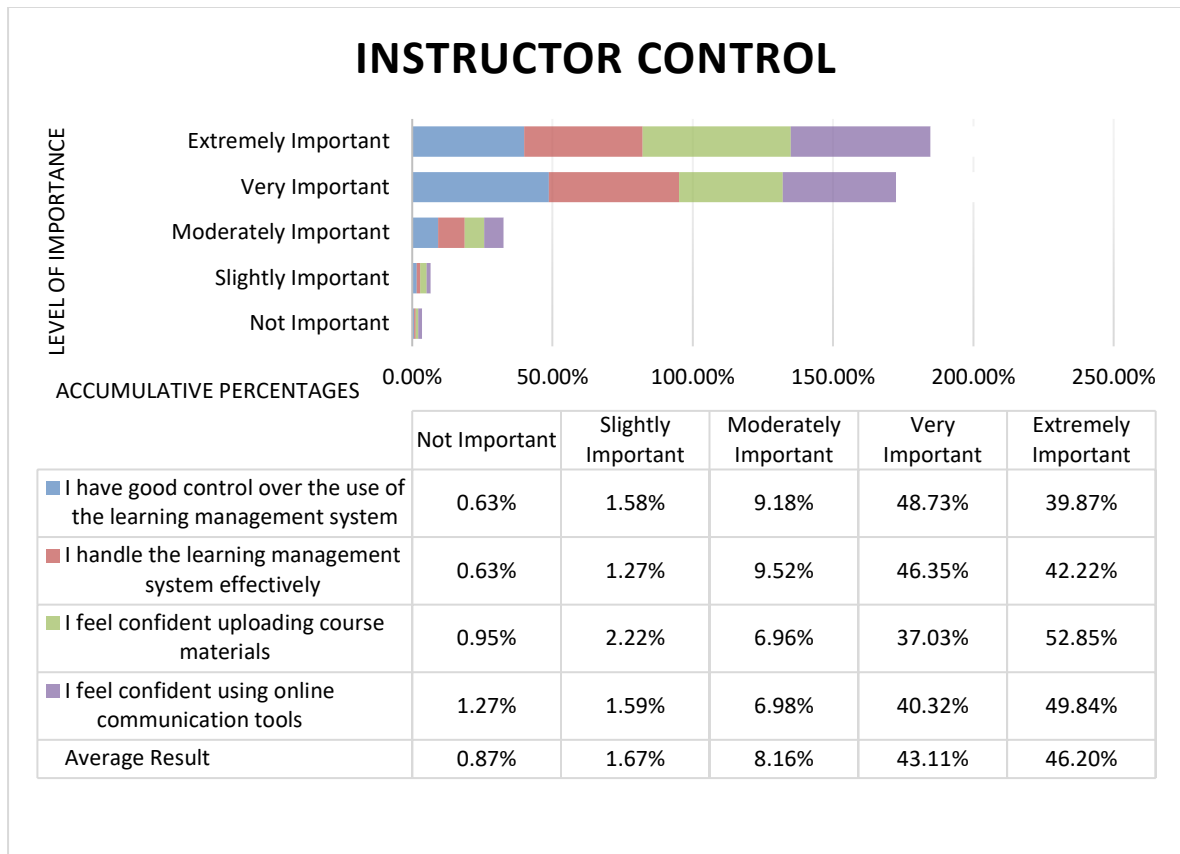


Figure 5.7 Instructor Control

As shown in Figure 5.7, the highest average response is 46.20% (corresponding to 147 instructors), which responded as Extremely Important. While the lowest average response is 0.87% (corresponding to 3 instructors) which responded as Not Important. Also, this factor resulted in an average mode of 4.5. Thus, indicating that the instructors identify Instructor Control as a *principal* factor which influences their decisions to continually teach their BL courses and use the associated LMS.

### 5.3.1.4 Instructor Responsiveness

Figure 5.8 displays the responses relating to the level of importance of Instructor Responsiveness on instructors' decisions to continually teach their BL courses.

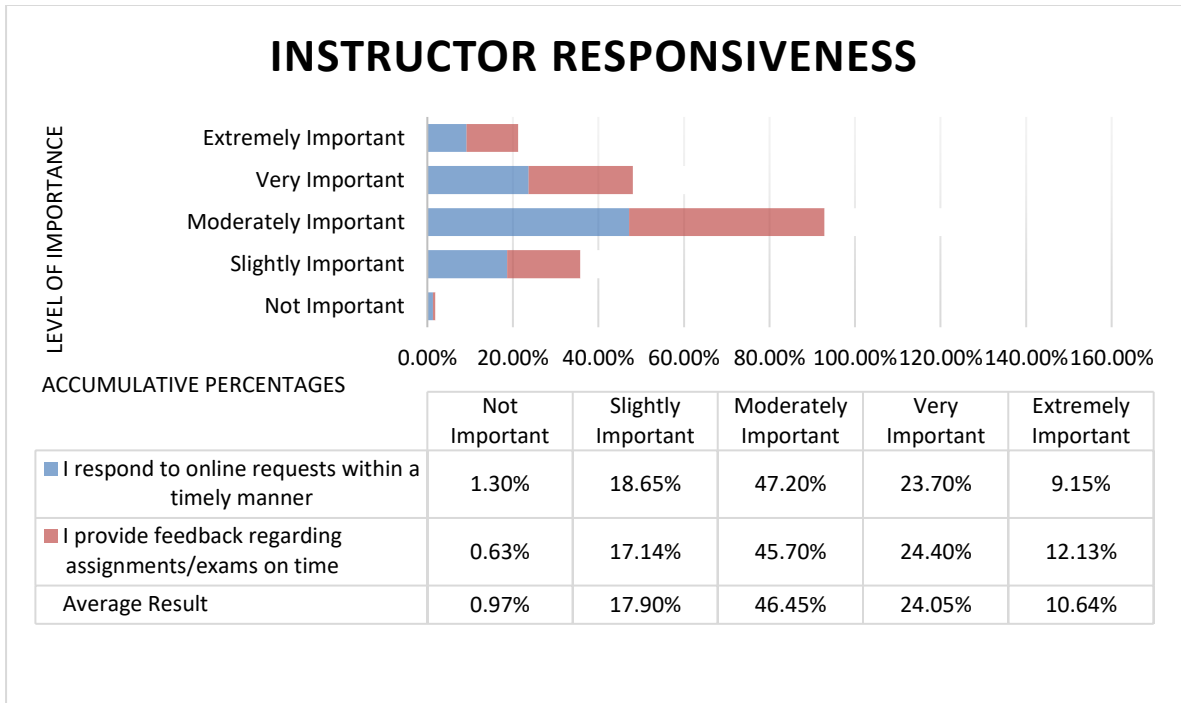


Figure 5.8 Instructor Responsiveness

As shown in Figure 5.8, the highest average response is 46.45% (corresponding to 148 instructors), which responded as Moderately Important. While the lowest average response is 0.97% (corresponding to 3 instructors) which responded as Not Important. Also, this factor resulted in an average mode of 3. Thus, indicating that the instructors perceive Instructor Responsiveness as a *moderately beneficial* factor which influences their decisions to continually teach their BL courses and use the associated LMS.

### 5.3.1.5 Academic Workload & Time Allocation

Figure 5.9 exhibits the responses relating to the level of importance of Academic Workload & Time Allocation on the instructors' decisions to continually teach their BL courses.

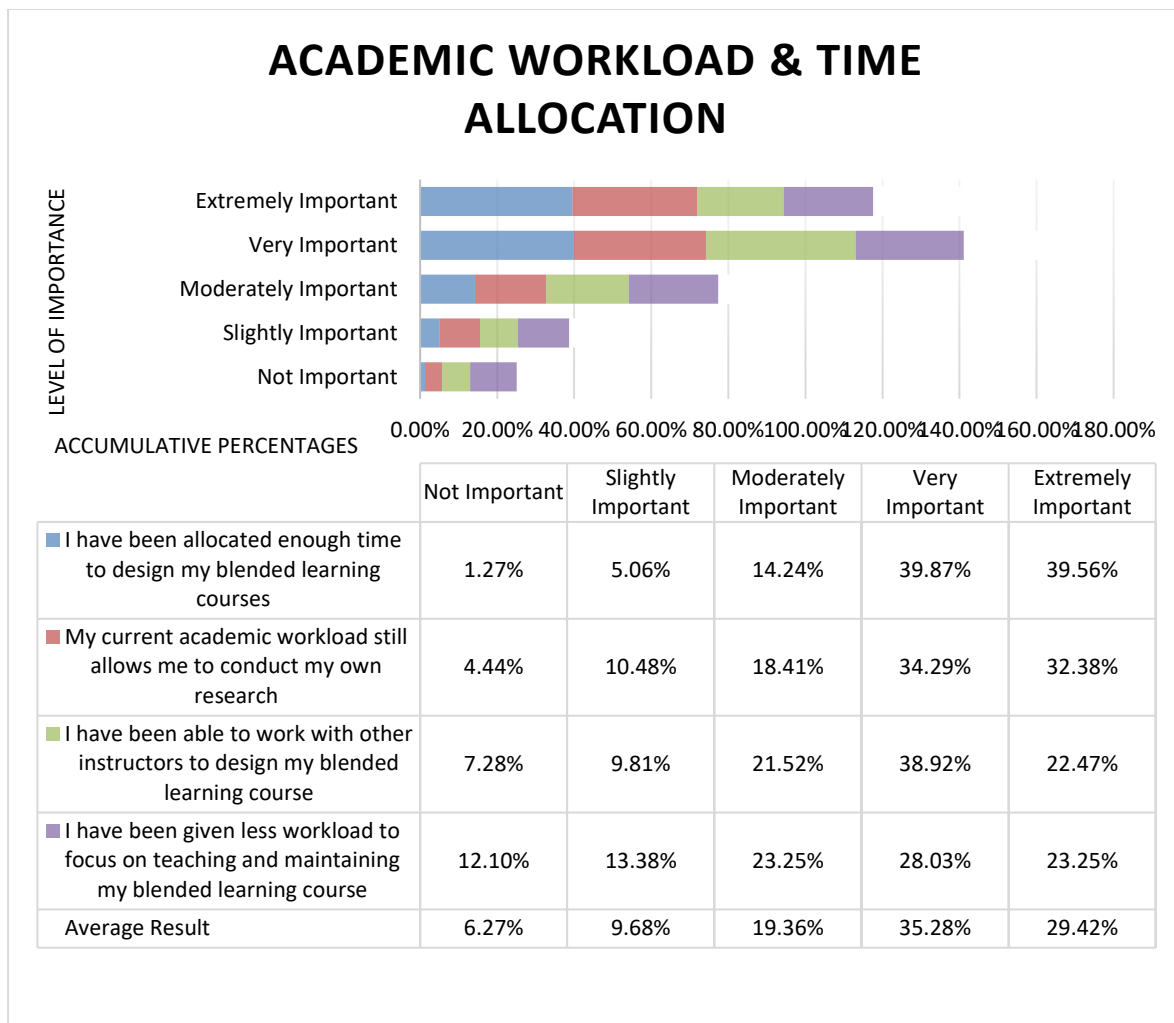


Figure 5.9 Academic Workload & Time Allocation

As shown in Figure 5.9, the highest average response is 35.28% (corresponding to 113 instructors), which responded as Very Important. While the lowest average response is 6.27% (corresponding to 20 instructors), which responded as Not Important. Also, this factor has resulted in an average mode of 4.0. Thus, indicating that the instructors recognize Workload & Time Allocation as a *valuable* factor which influences their decisions to continually teach their BL courses and use the associated LMS.

### 5.3.2 Learner Characteristics

The following section will present the perceived importance of the critical factors, within the learner dimension, on the participants' CIU decisions. These factors were identified in the



literature and discussed in Chapter 3, section 3.3.1.1. The 5 factors within this dimension include: Learner Computer Anxiety, Learner Technological Experience, Learner Self-Efficacy, Learner Control, and Learner Personal Innovativeness.

### 5.3.2.1 Learner Computer Anxiety

Figure 5.10 displays the responses relating to the level of importance of Computer Anxiety on instructors' decisions to continually teach their BL courses.

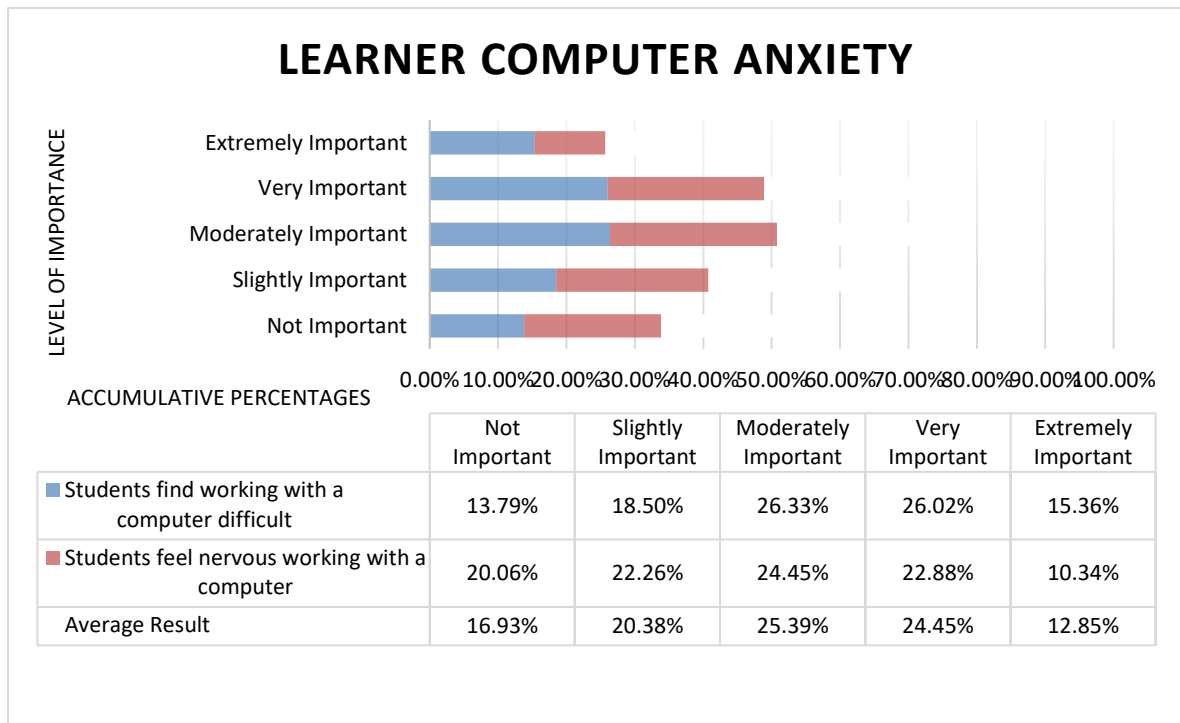


Figure 5.10 Learner Computer Anxiety

As shown in Figure 5.10, the highest average response is 25.39% (corresponding to 81 instructors), which had responded as Moderately Important. While the lowest average response is 12.85% (corresponding to 41 instructors) which had responded as Extremely Important. Also, this critical factor resulted in an average mode of 3.0. Thus, indicating that the instructors perceive Learner Computer Anxiety as a factor which is *moderately beneficial* towards their decisions to continually teach their BL courses and use the associated LMS.

### 5.3.2.2 Learner Technological Experience

Figure 5.11 represents the responses relating to the level of importance of Learner Technological Experience on instructors' decisions to continually teach their BL courses.

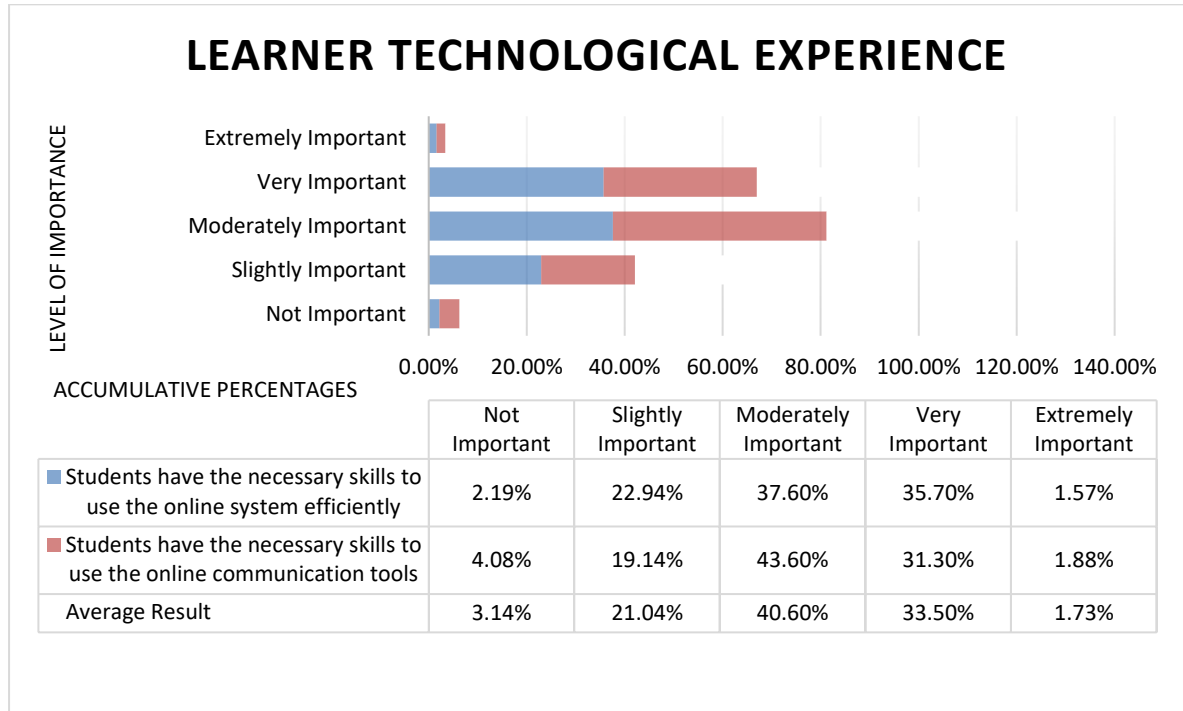


Figure 5.11 Learner Technological Experience

As shown in Figure 5.11, the highest average response is 40.60% (corresponding to instructors 130 instructors), which responded as Moderately Important. This indicates that While the lowest average response is 1.73% (corresponding to 6 instructors) which responded as Extremely Important. Also, this critical factor resulted in an average mode of 3.0. Thus, indicating that the instructors believe that Learner Technological Experience is moderately beneficial towards their decisions to continually teach their BL courses and use the associated LMS.

### 5.3.2.3 Learner Self-Efficacy

Figure 5.12 presents the responses relating to the level of importance of Learner Self-Efficacy on the instructors' decisions to continually teach their BL courses.

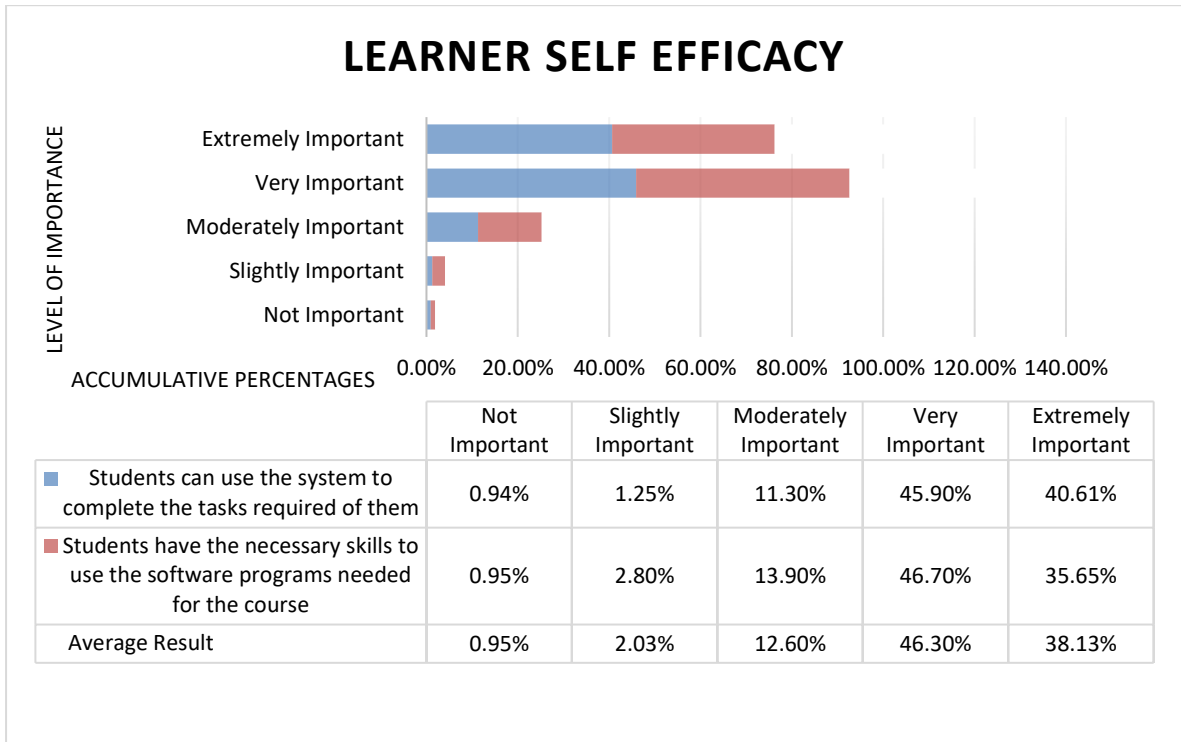
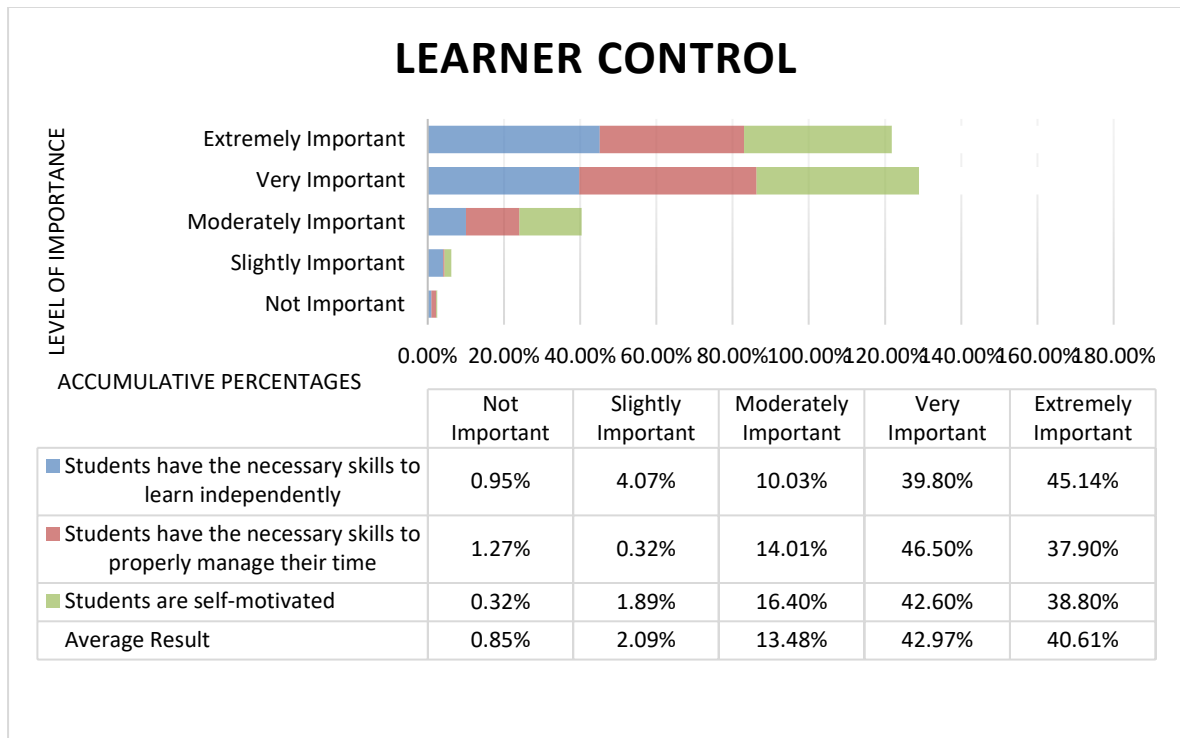


Figure 5.12 Learner Self-Efficacy

As shown in Figure 5.12, the highest average response is 46.30% (corresponding to 148 instructors), which responded as Very Important. While the lowest average response is 0.95% (corresponding to 3 instructors) which responded as Not Important. Also, this critical factor has resulted in an average mode of 4.0. Thus, indicating that the instructors recognize Learner Self-Efficacy as a *valuable* factor which influences their decisions to continually teach their BL courses and use the associated LMS.

### 5.3.2.4 Learner Control

Figure 5.13 presents the responses relating to the level of importance of Learner Control on instructors' decisions to continually teach their BL courses.



*Figure 5.13 Learner Control*

As shown in the Figure 5.13, the highest average response is 42.97% (corresponding to 137 instructors), which responded as Very Important. While the lowest average response is 0.85% (corresponding to 3 instructors) which responded as Not Important. Also, this critical factor has resulted in an average mode of 4.33. Thus, indicating that the instructors consider Learner Control as a principal factor which influences their decisions to continually teach their BL courses and use the associated LMS.

### 5.3.2.5 Learner Personal Innovativeness

Figure 5.14 demonstrates the responses relating to the level of importance of Learner Personal Innovativeness on instructors' decisions to continually teach their BL courses.

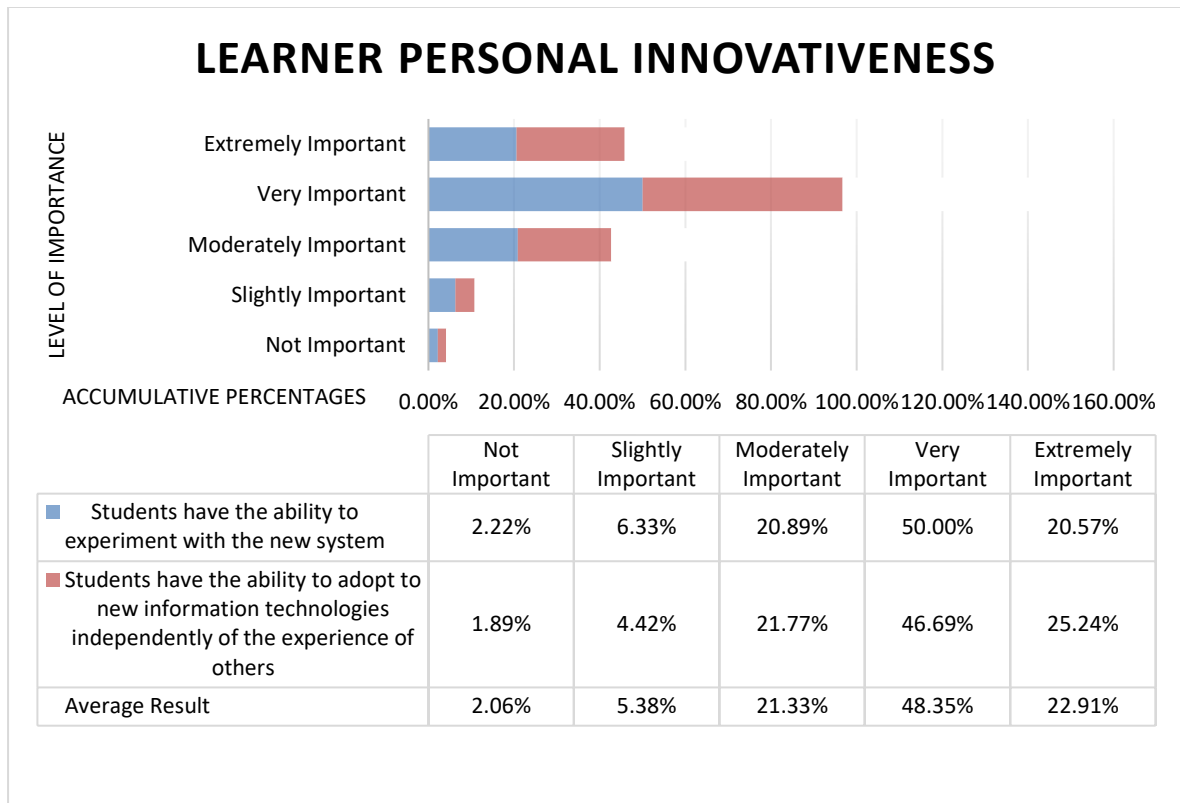


Figure 5.14 Learner Personal Innovativeness

As shown in Figure 5.14, the highest average response is 48.35% (corresponding to 154 instructors), which responded as Very Important. While the lowest average response is 2.06% (corresponding to 7 instructors) which responded as Not Important. Also, this factor has resulted in an average mode of 4.0. Thus, indicating that the instructors perceive Learner Personal Innovativeness as a *valuable* factor which influences their decisions to continually teach their BL courses and use the associated LMS.

### 5.3.3 Course Characteristics

The following section will present the perceived importance of the critical factors, within the course dimension, on the participants' CIU decisions. These factors were identified in the literature and discussed in Chapter 3, section 3.3.1.3. The factors within this dimension include: Material Quality & Learning Resources and Course Flexibility.

#### 5.3.3.1 Material Quality & Learning Resources

Figure 5.15 demonstrates the responses relating to the level of importance of Material Quality & Learning Resources on instructors' decisions to continually teach their BL courses.

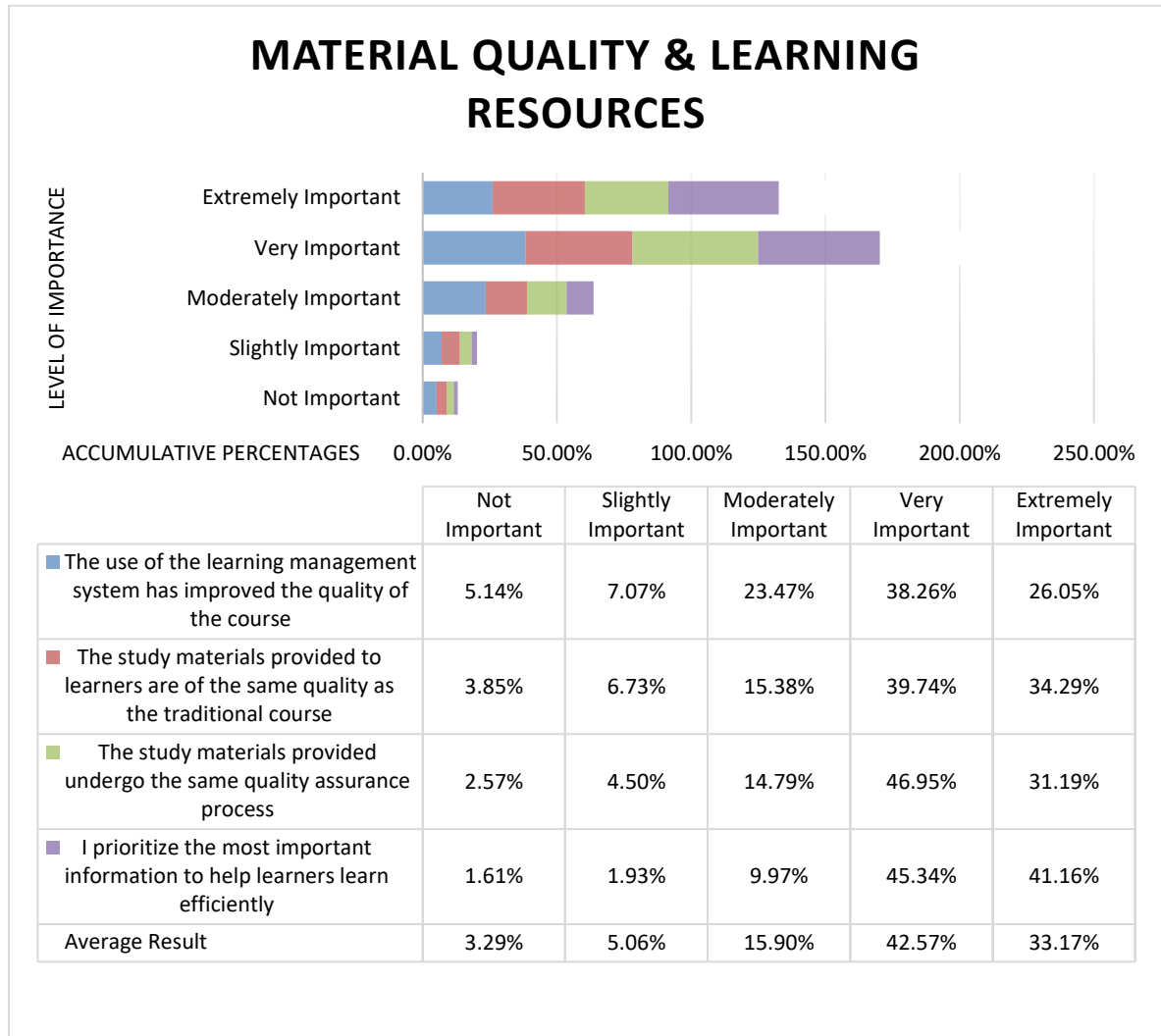


Figure 5.15 Material Quality & Learning Resources

As shown in Figure 5.15, the highest average response is 42.57% (corresponding to 136 instructors), which responded as Very Important. While the lowest average response is 3.29% (corresponding to 11 instructors) which responded as Not Important. Also, this factor has resulted in an average mode of 4.0. Thus, indicating that the instructors perceive Material Quality & Learning Resources as a *valuable* factor which influences their decisions to continually teach their BL courses and use the associated LMS.

### 5.3.3.2 Course Flexibility

Figure 5.16 presents the responses relating to the level of importance of Course Flexibility on instructors' decisions to continually teach their BL courses.

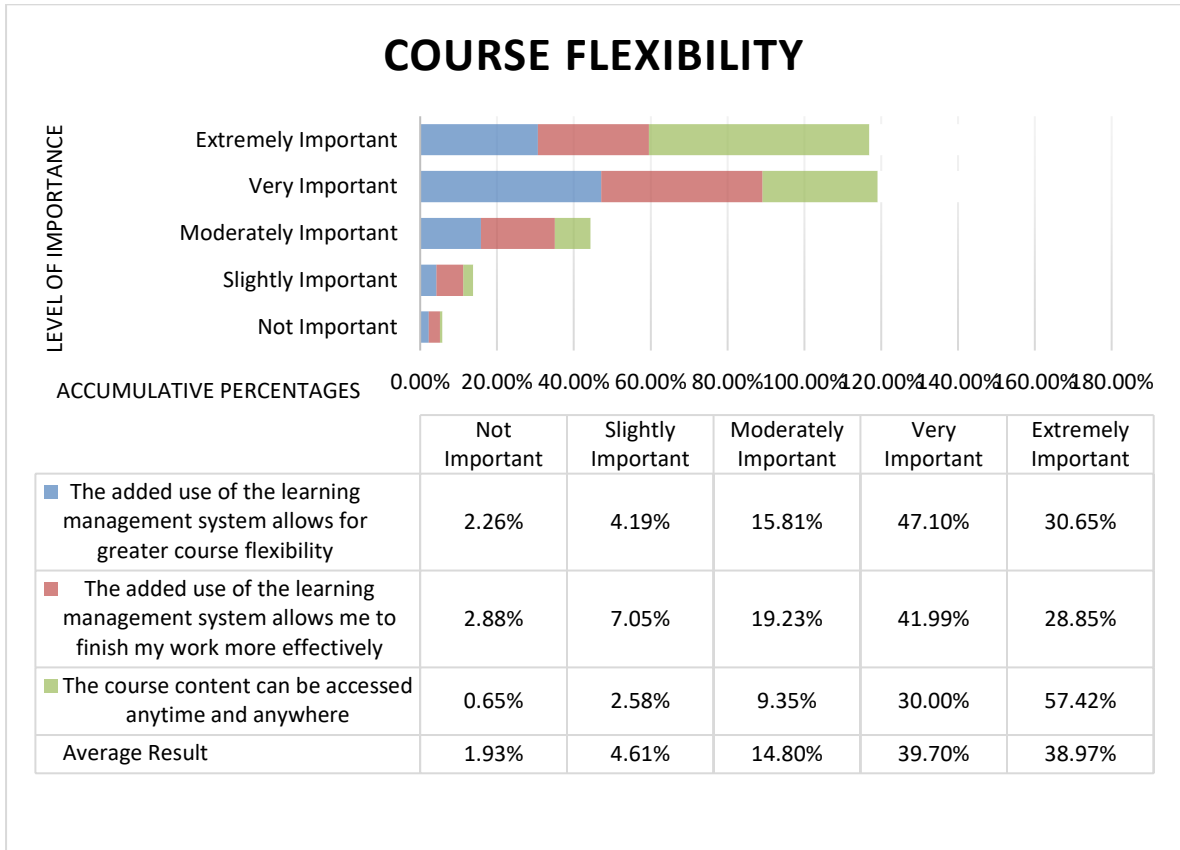


Figure 5.16 Course Flexibility

As shown in Figure 5.16, the highest average response is 39.70% (corresponding to 127 instructors), which responded as Very Important. While the lowest average response is 1.93% (corresponding to 6 instructors) which responded as Not Important. Also, this factor has resulted in an average mode of 4.33. Thus, indicating that the instructors recognize Course Flexibility as a *principal* factor which influences their decisions to continually teach their BL courses and use the associated LMS.

### 5.3.4 LMS Characteristics

The following section will present the perceived importance of the critical factors, within the system dimension, on the participants' CIU decisions. These factors were identified in the literature and discussed in Chapter 3, section 3.3.1.4. The factors within this dimension include: System Quality, Information Quality, and Service Quality.

### 5.3.4.1 System Quality

Figure 5.17 illustrates the responses relating to the level of importance of System Quality on instructors' decisions to continually teach their BL courses.

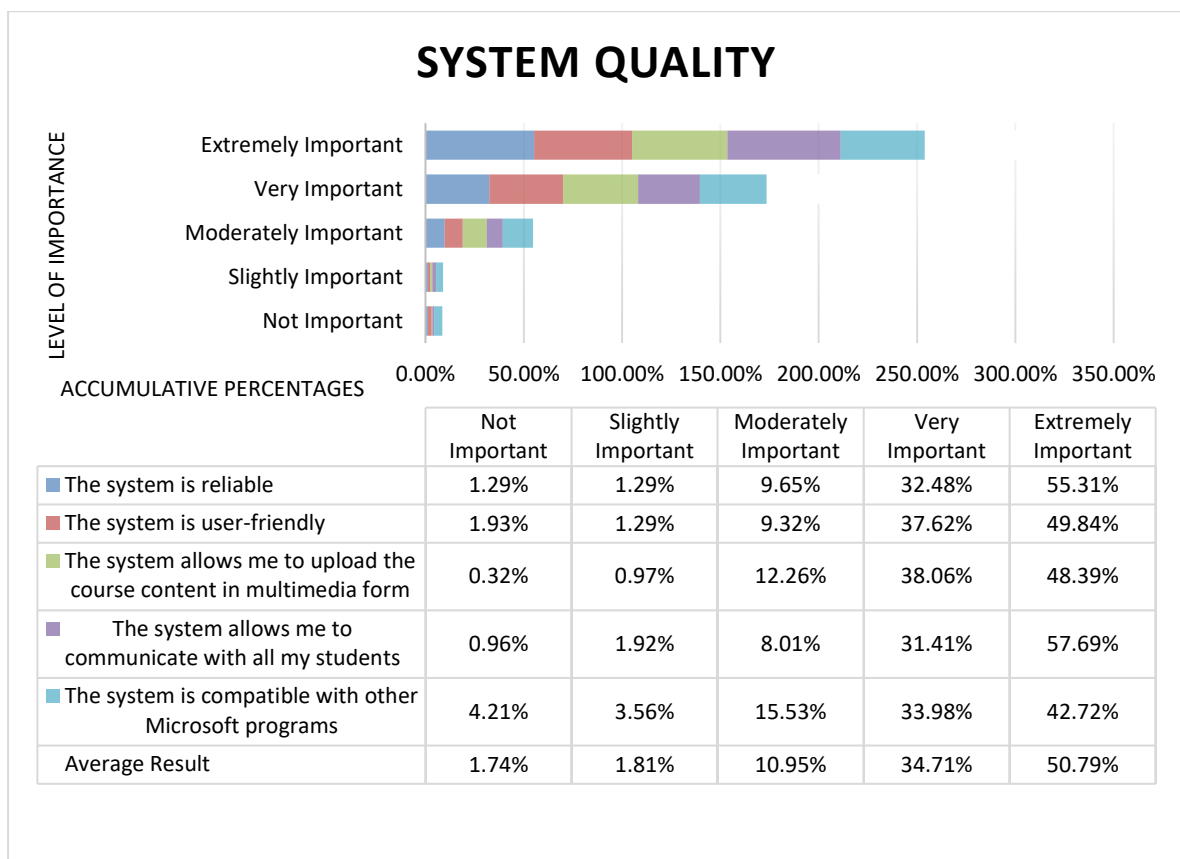


Figure 5.17 System Quality

As shown in Figure 5.17, the highest average response is 50.79% (corresponding to 162 instructors), which responded as Extremely Important. While the lowest average response is 1.74% (corresponding to 6 instructors) which responded as Not Important. Also, this factor has resulted in an average mode of 5.0. Thus, indicating that the instructors recognize System



Quality as a *principal* factor which influences their decisions to continually teach their BL courses and use the associated LMS.

### 5.3.4.2 Information Quality

Figure 5.18 demonstrates the responses relating to the level of importance of Information Quality on instructors’ decisions to continually teach their BL courses.

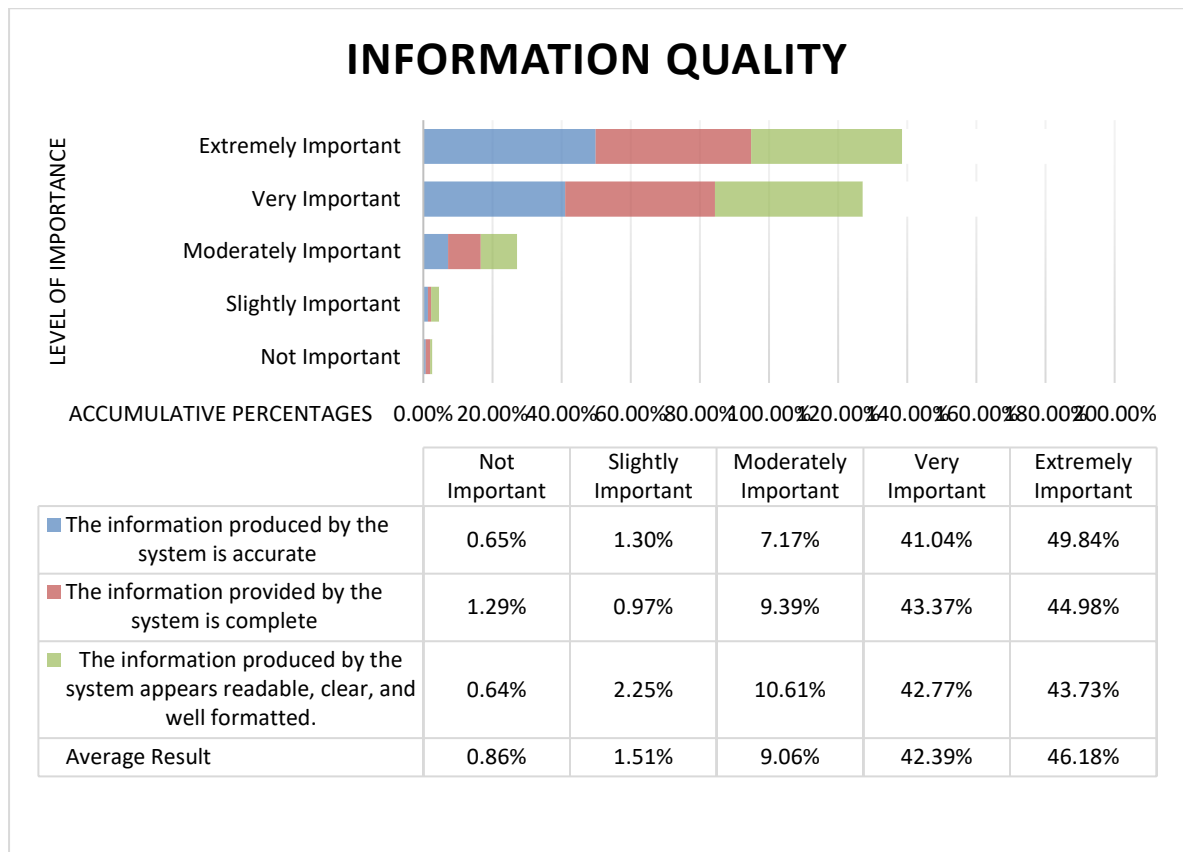


Figure 5.18 Information Quality

As shown in Figure 5.18, the highest average response is 46.18% (corresponding to 147 instructors), which responded as Extremely Important. While the lowest average response is 0.86% (corresponding to 3 instructors) which responded as Not Important. Also, this factor resulted in an average mode of 5.0. Thus, indicating that the instructors characterize Information Quality as a *principal* factor which influences their decisions to continually teach their BL courses and use the associated LMS.

### 5.3.4.3 Service Quality

Figure 5.19 demonstrates the responses relating to the level of importance of Service Quality on instructors' decisions to continually teach their BL courses.

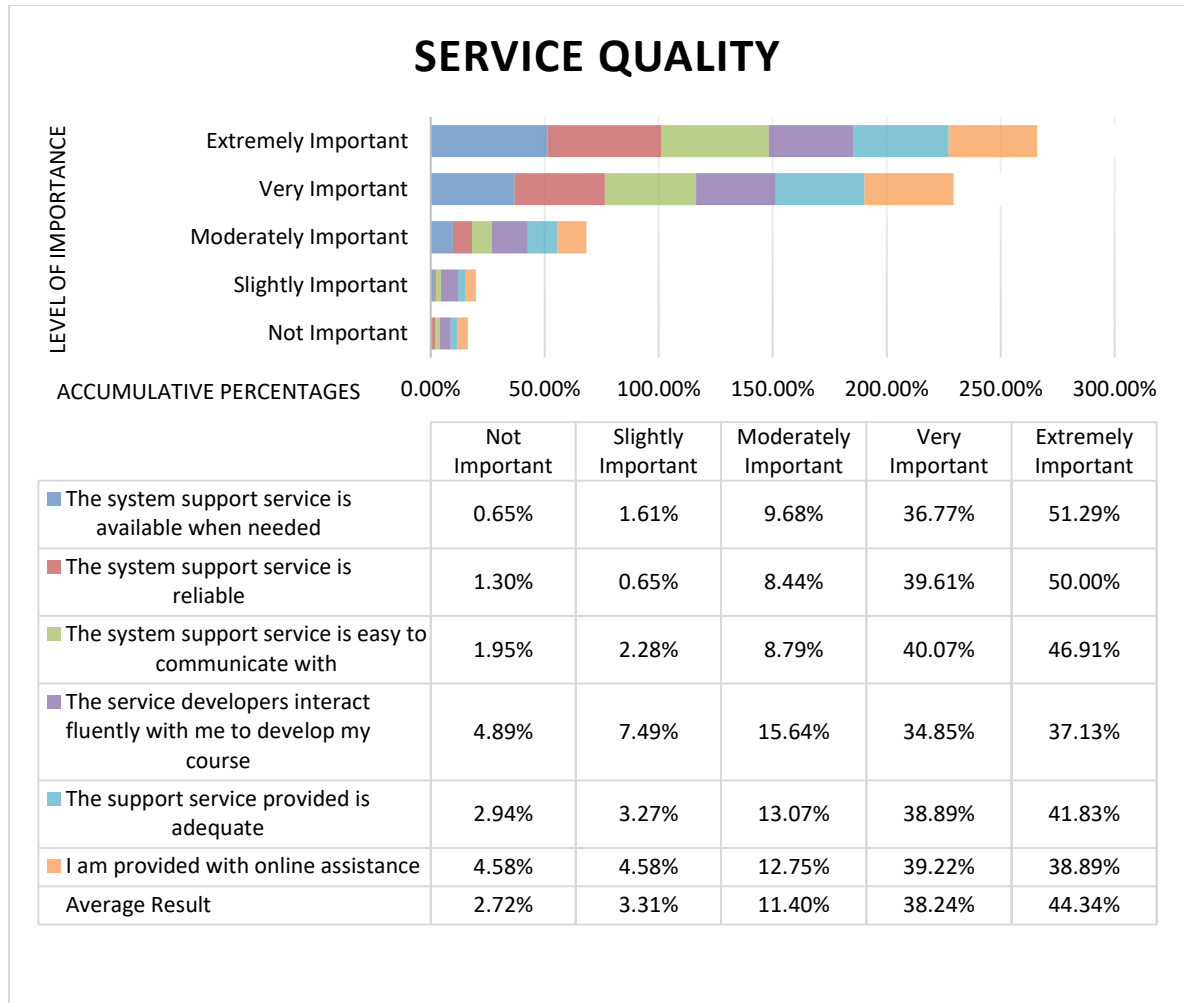


Figure 5.19 Service Quality

As shown in Figure 5.19, the highest average response is 44.34% (corresponding to 141 instructors), which responded as Extremely Important. While the lowest average response is 2.72% (corresponding to 9 instructors) which responded as Not Important. Also, this factor resulted in an average mode of 4.83. Thus, indicating that the instructors perceive Service Quality as a *principal* factor which influences their decisions to continually teach their BL courses and use the associated LMS.

### 5.3.5 Organizational Characteristics

The following section will present the perceived importance of the critical factors, within the organizational dimension, on the participants' CIU decisions. These factors were identified in the literature and discussed in Chapter 3, section 3.3.1.5. The factors within this dimension include: Organizational Support, Training & Development, and Assessment & Feedback.

#### 5.3.5.1 Organizational Support

Figure 5.20 presents the responses relating to the perceived level of importance of Organizational Support on instructors' decisions to continually teach their BL courses.

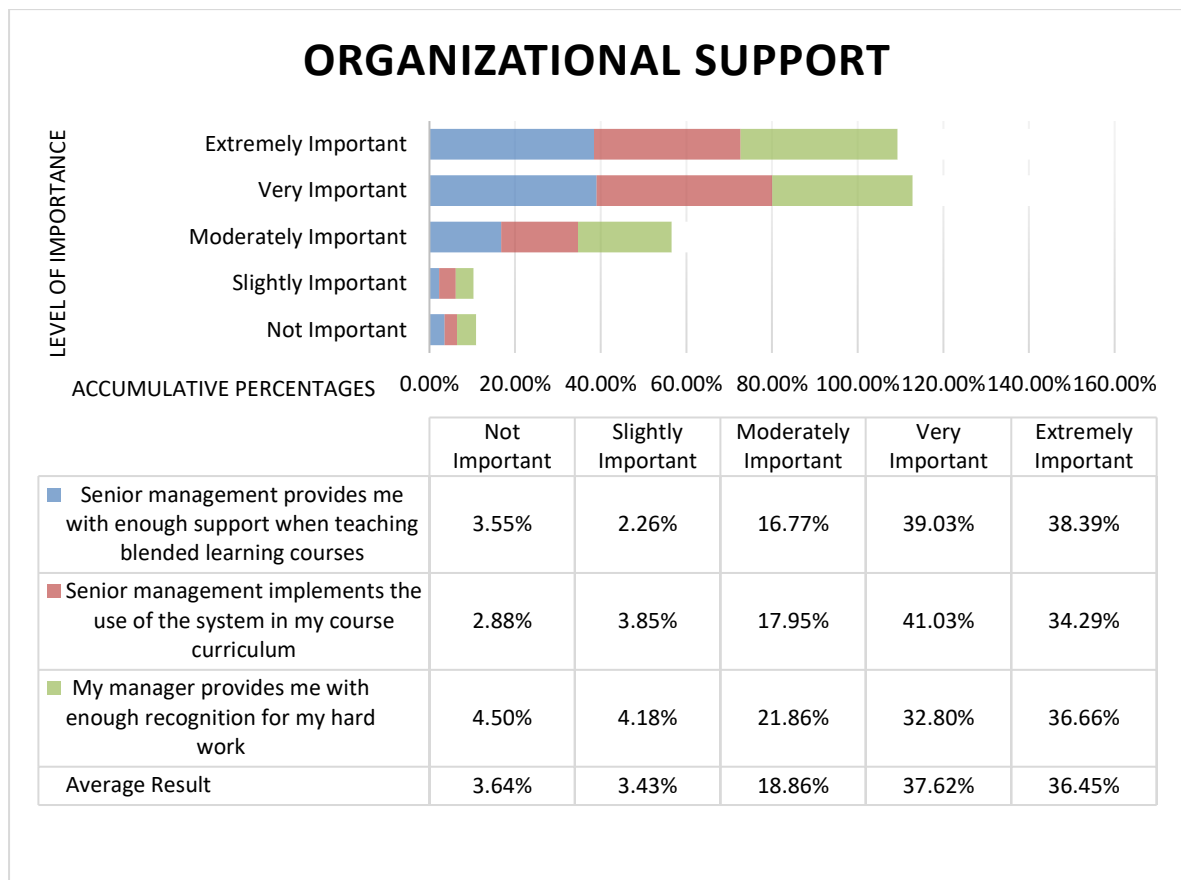


Figure 5.20 Organizational Support

As shown in Figure 5.20, the highest average response is 37.62% (corresponding to 120 instructors), which responded as Very Important. While the lowest average response is 3.43%

(corresponding to 11 instructors) which responded as Slightly Important. Also, this factor has resulted in an average mode of 4.33. Thus, indicating that the instructors recognize Organizational Support as a *principal* factor which influences their decisions to continually teach their BL courses and use the associated LMS.

### 5.3.5.2 Training & Development

Figure 5.21 demonstrates the responses relating to the perceived level of importance of Training & Development to instructors' decisions to continually teach their BL courses.

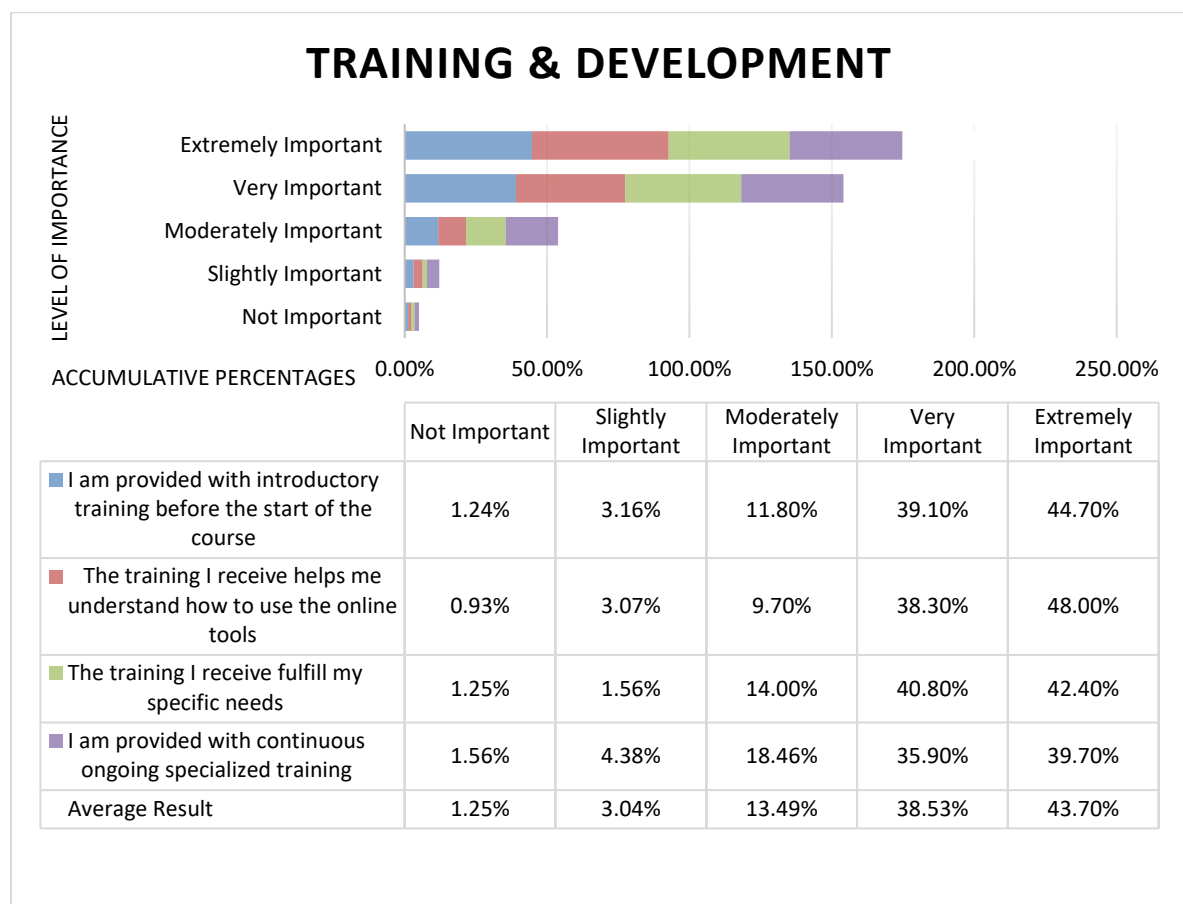


Figure 5.21 Training & Development

As shown in Figure 5.21, the highest average response is 43.70% (corresponding to 139 instructors), which responded as Extremely Important. While the lowest average response is 1.25% (corresponding to 4 instructors) which responded as Not Important. Also, this factor has resulted in an average mode of 5.0. Thus, indicating that the instructors characterize

Training & Development as a *principal* factor which influences their decisions to continually teach their BL courses and use the associated LMS.

### 5.3.5.3 Assessment & Feedback

Figure 5.22 illustrates the responses relating to the perceived level of importance of Assessment & Feedback on instructors' decisions to continually teach their BL course.

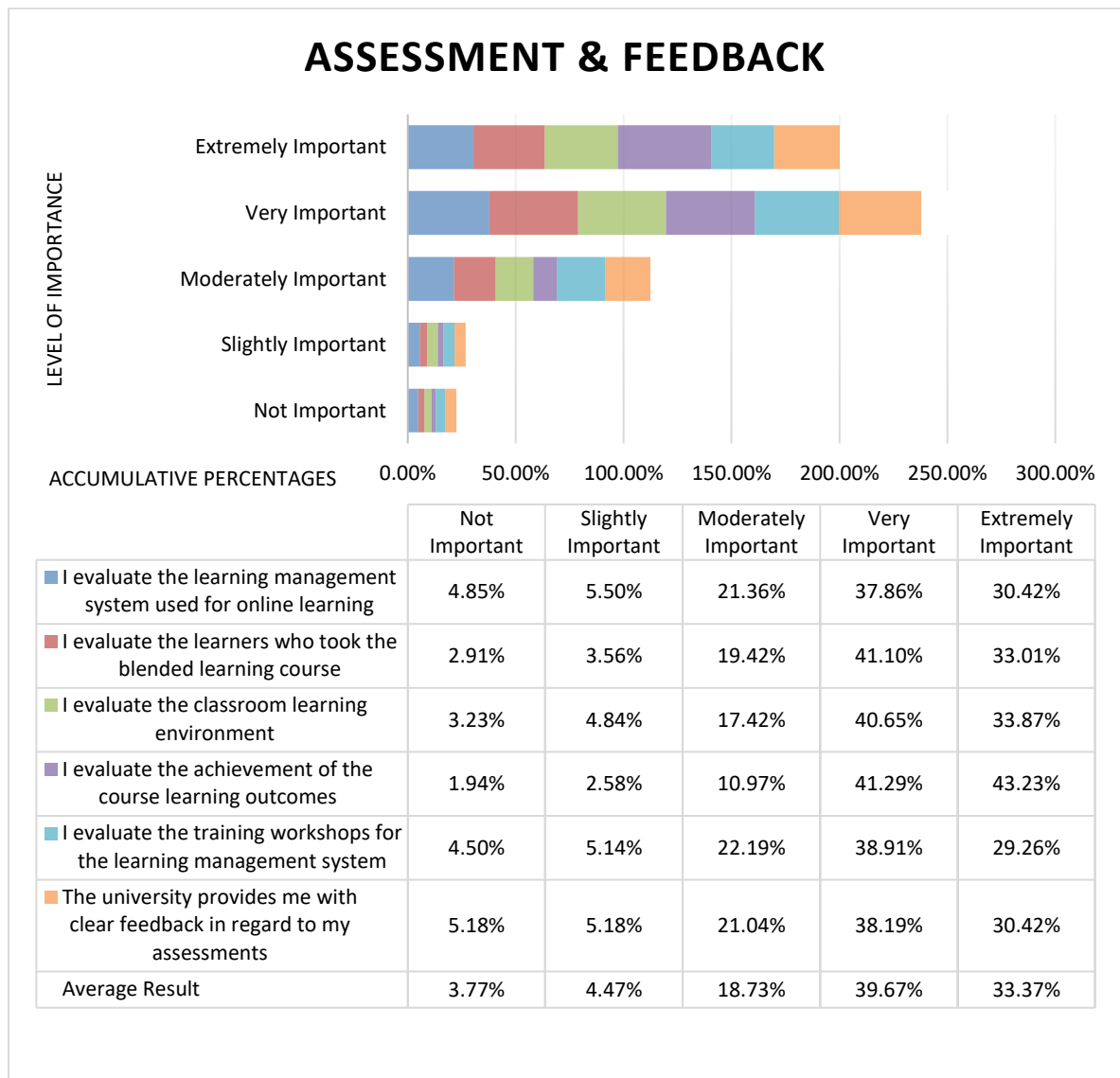


Figure 5.22 Assessment & Feedback

As shown in Figure 5.22, the highest average response is 39.67% (corresponding to 127 instructors), which responded as Very Important. While the lowest average response is 3.77% (corresponding to 12 instructors) which responded as Not Important. Also, this factor has resulted in an average mode of 4.17. Thus, indicating that the instructors perceive Assessment & Feedback as a *principal* factor which influences their decisions to continually teach their BL courses and use the associated LMS.

### 5.3.6 Ranking of Critical Factors

Figure 5.23 presents the mode results of all the 18 critical factors and prioritized in order of the most principal to the least.

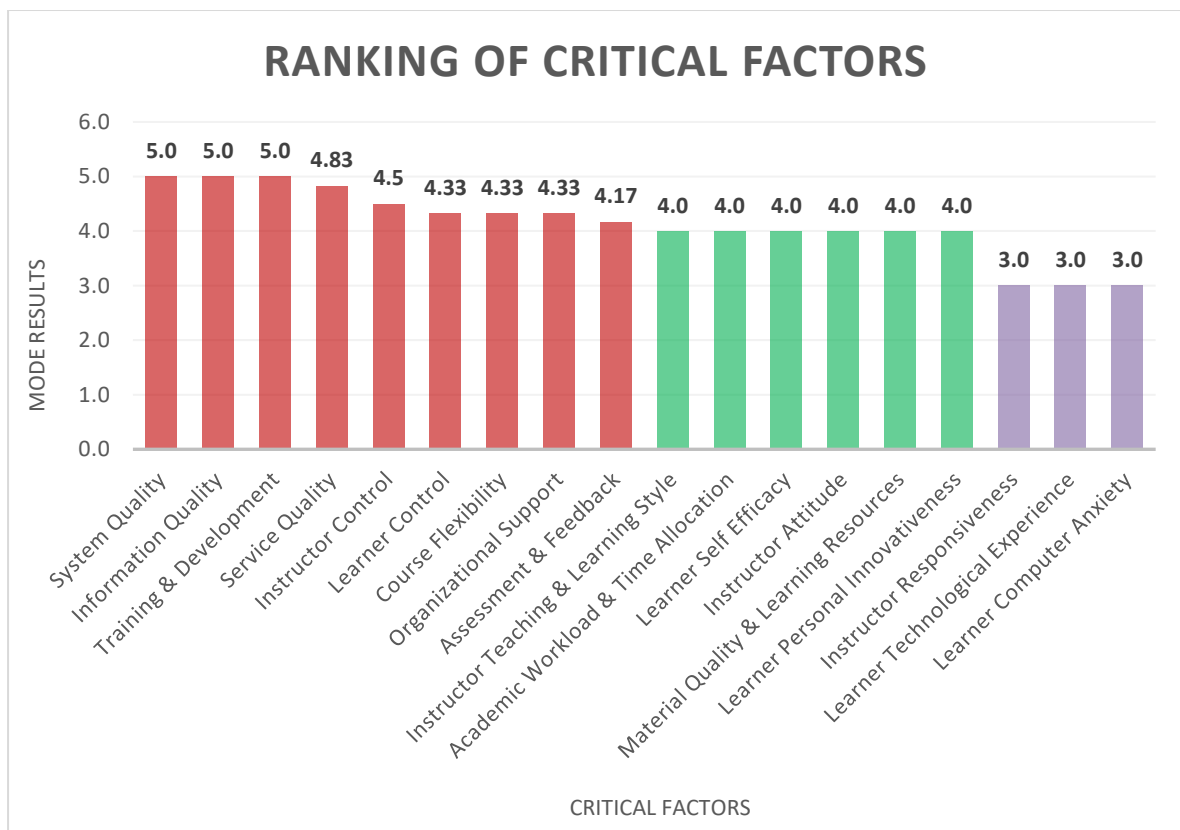


Figure 5.23 Ranking of Critical Factors

As shown in Figure 5.23, the principal critical factors are highlighted in red, the valuable critical factors are highlighted in green, and the moderately beneficial factors are highlighted in purple. The highest ranked critical factors, each with a mode of 5.00, are System Quality,

Information Quality, and Training & Development. Thus, indicating that instructors recognize these factors as most principal towards their BL continuity decisions. Other principal critical factors recognized by the instructors, which are highlighted in red, are Service Quality, Instructor Control, Learner Control, Course Flexibility, Organizational Support, and Assessment & Feedback. On the other hand, the least ranked critical factors, which are highlighted in purple and each with a mode of 3.0, are Instructor Responsiveness, Learner Technological Experience, and Learner Computer Anxiety. Thus, indicating that instructors regarded these factors as moderately beneficial towards their BL continuity decisions. While, the instructors perceived 6 other critical factors, which are highlighted in green and each with a mode of 4.00, as valuable towards their BL continuity decisions.

## **5.4 Effectiveness Measures**

The following section will present the participants' experiences of their BL courses within four effectiveness measures. The effectiveness measures include: Perceived Usefulness, Perceived Ease of Use, System Use, and Satisfaction.

### **5.4.1 Perceived Usefulness**

Figure 5.24 displays the responses concerning instructors' thoughts related to the perceived usefulness of their BL courses and the accompanying LMS.

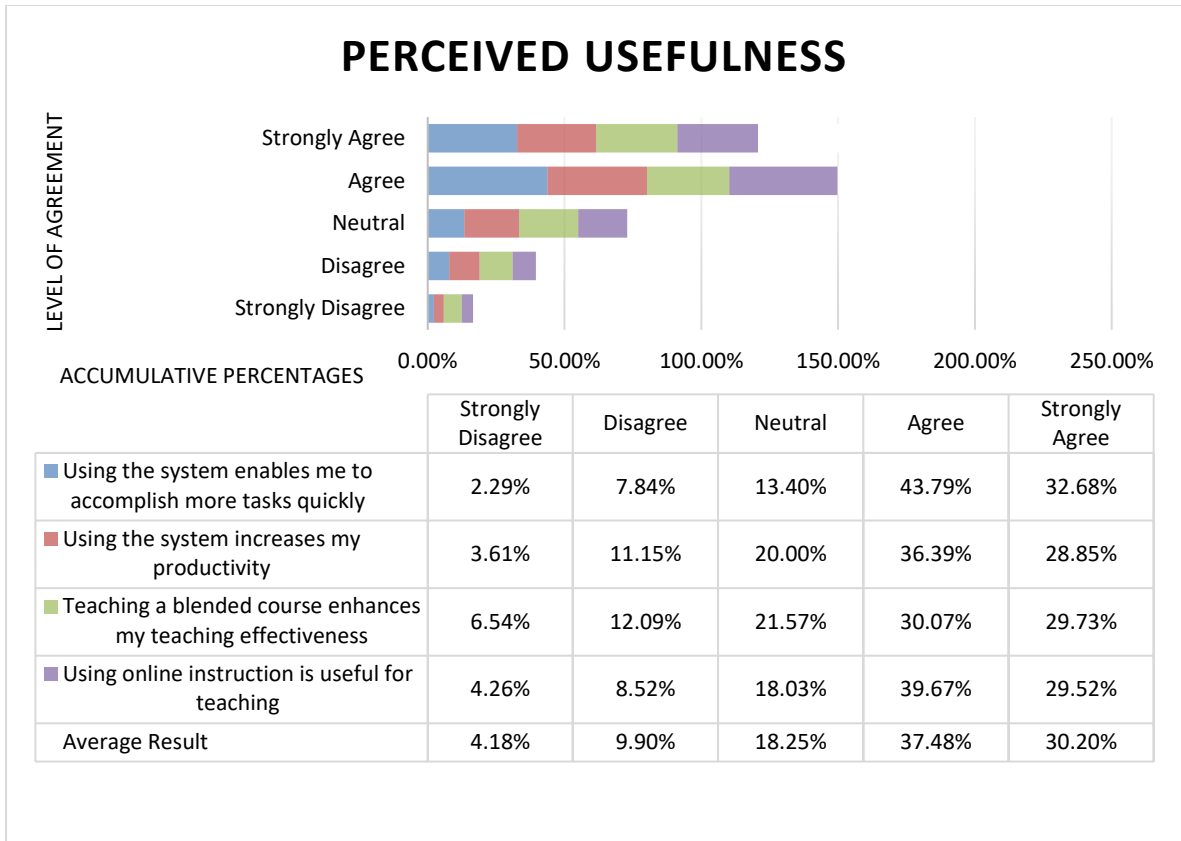


Figure 5.24 Perceived Usefulness

As shown in Figure 5.24, the highest average response was 37.48% (corresponding to 120 instructors), which responded as Agree; and the lowest average response was 4.18% (corresponding to 13 instructors) which responded as Strongly Disagree. A total of 67.68% (corresponding to 216 instructors) have provided positive responses (*Strongly Agree & Agree*) indicating that they perceive teaching a BL course as well as using the associated LMS to be useful. Moreover, this effectiveness measure has returned an average mode of 4.0 indicating that the instructors *Agree* that teaching a BL course and using the associated LMS is useful.

### 5.4.2 Perceived Ease of Use

Figure 5.25 presents the responses concerning instructors' thoughts related to the perceived ease of use of the LMS which is used to support their BL courses.



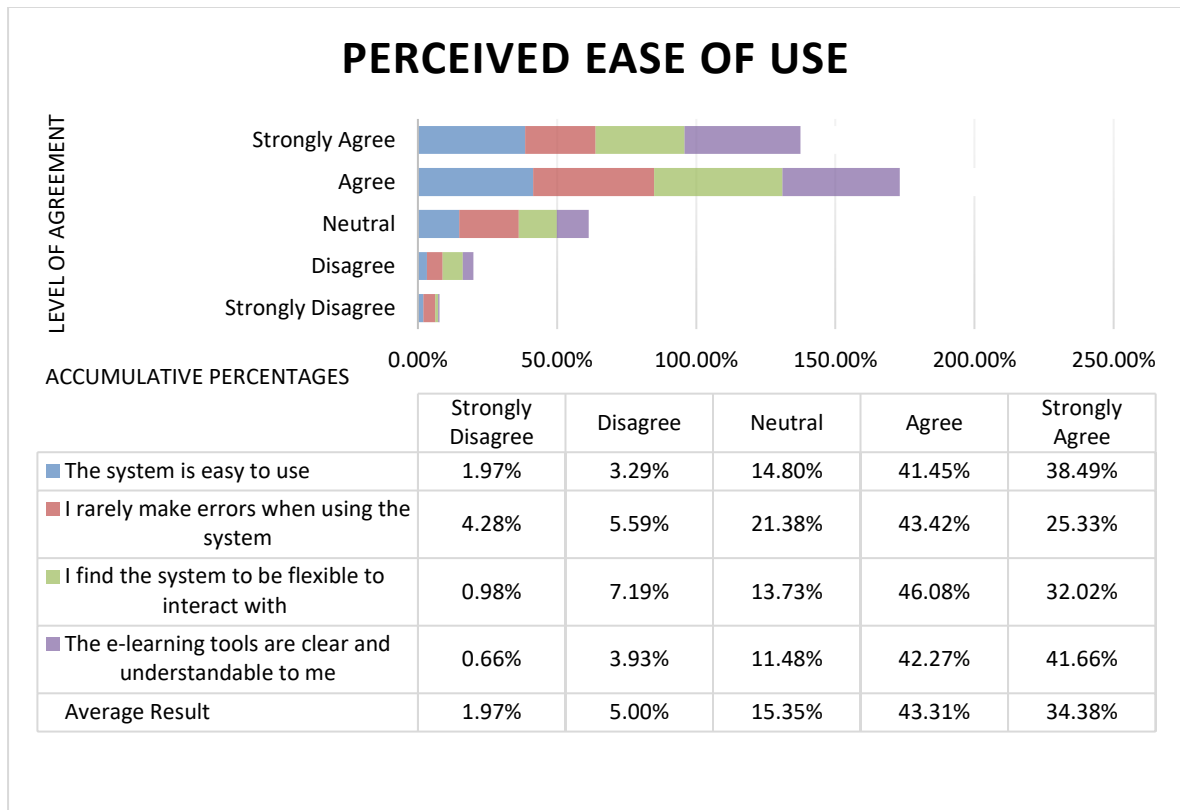
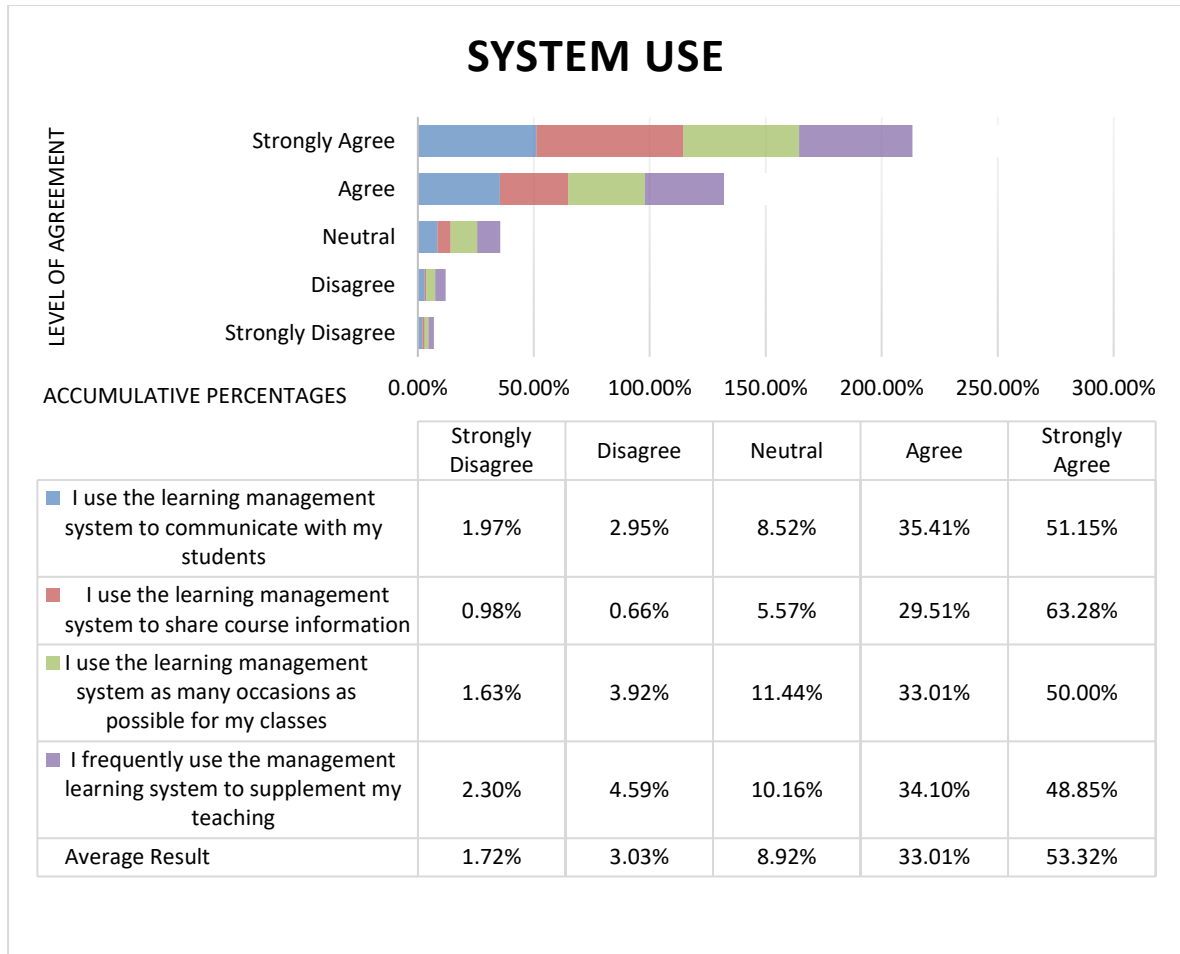


Figure 5.25 Perceived Ease of Use

As shown in Figure 5.25, the highest average response was 43.31% (corresponding to 138 instructors) which responded as Agree; and the lowest average responses was 1.97% (corresponding to 6 instructors) which responded as Strongly Disagree. A total of 77.69% (corresponding to 248 instructors) have provided positive responses (*Strongly Agree & Agree*) indicating that they perceive that the LMS, which is used to support their BL courses, to be easy to use. Moreover, this effectiveness measure has returned an average mode of 4.25 indicating that the instructors *Strongly Agree* that using the associated LMS is easy to use.

### 5.4.3 System Use

Figure 5.26 exhibits the responses concerning instructors' thoughts related to the use of the LMS which is used to support their BL courses.



*Figure 5.26 System Use*

As shown in Figure 5.26, the highest response was 53.32% (corresponding to 170 instructors), which responded as Strongly Agree; and the lowest response was 1.72% (corresponding to 5 instructors) which responded as Strongly Disagree. A total of 86.33 % (corresponding to 275 instructors) have provided positive responses (*Strongly Agree & Agree*) indicating that they frequently use and depend on the LMS to aid with their BL courses. Moreover, this effectiveness measure has returned an average mode of 5.0 indicating that the instructors *Strongly Agree* that they frequently use and depend on the LMS to assist with teaching their BL courses.

#### **5.4.4 Satisfaction**

Figure 5.27 presents the responses concerning instructors' thoughts related to their level of satisfaction with teaching a BL course and using the LMS to support their courses.

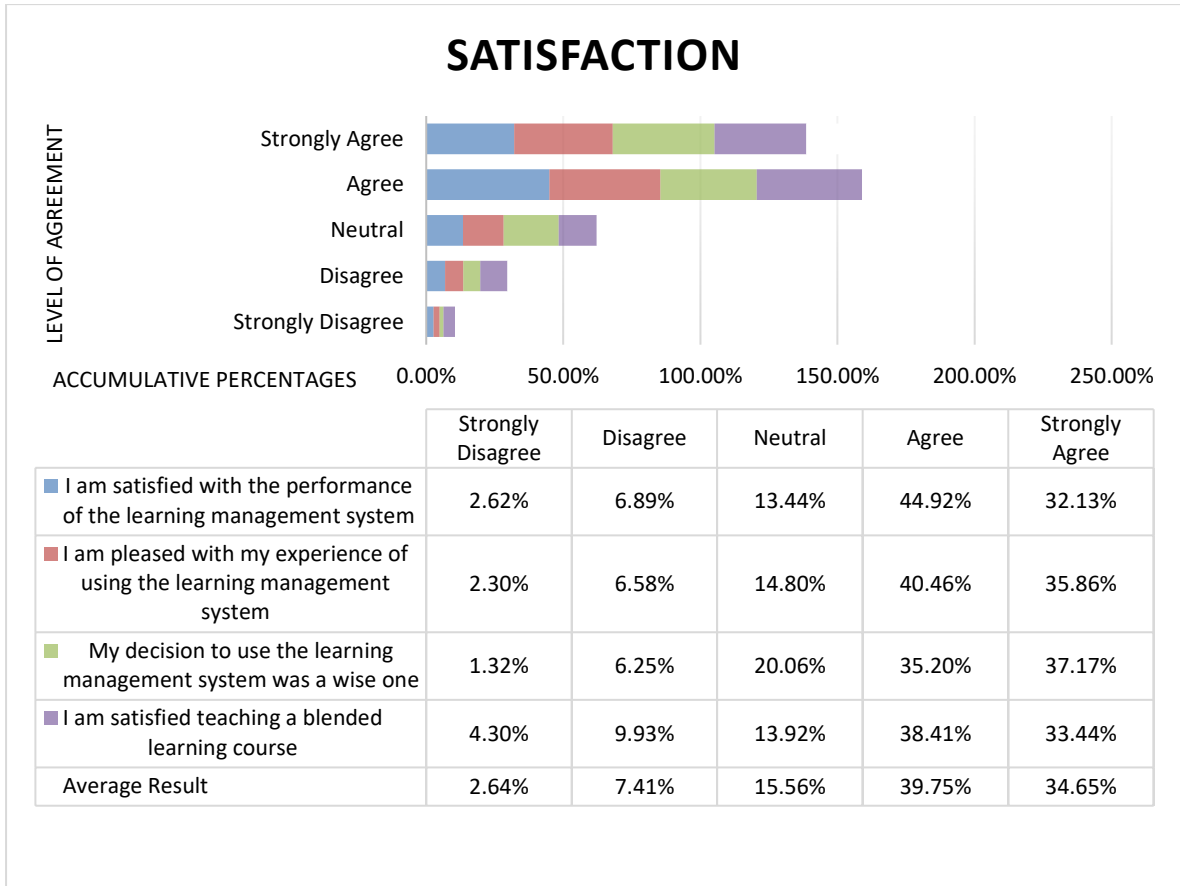


Figure 5.27 Satisfaction

As shown in Figure 5.27, the highest response was 39.75% (corresponding to 127 instructors), which responded as Agree; and the lowest response was 2.64% (corresponding to 8 instructors) which responded as Strongly Disagree. A total of 74.40% (corresponding to 237 instructors) had provided positive responses (*Strongly Agree & Agree*) indicating that they are satisfied with teaching a BL course and using the associated LMS. Specifically, 71.85% (corresponding to 229 instructors) have indicated that they are satisfied with teaching their current BL courses, while 14.23% (corresponding to 45 instructors) have indicated that they are dissatisfied. Moreover, this effectiveness measure has returned an average mode of 4.25 indicating that the instructors *Strongly Agree* that they are satisfied with teaching a BL course and using the associated LMS.

## **5.5 BL Continuity**

The following section will present the participants' overall CIU decisions. The participants' CIU decisions will also be showcased in terms of course subjects (STEM vs non-STEM) as well as previous DL experience.

### **5.5.1 CIU BL**

Figure 5.28 presents the responses concerning instructors' intentions to continually teach their BL courses and use the associated LMS.

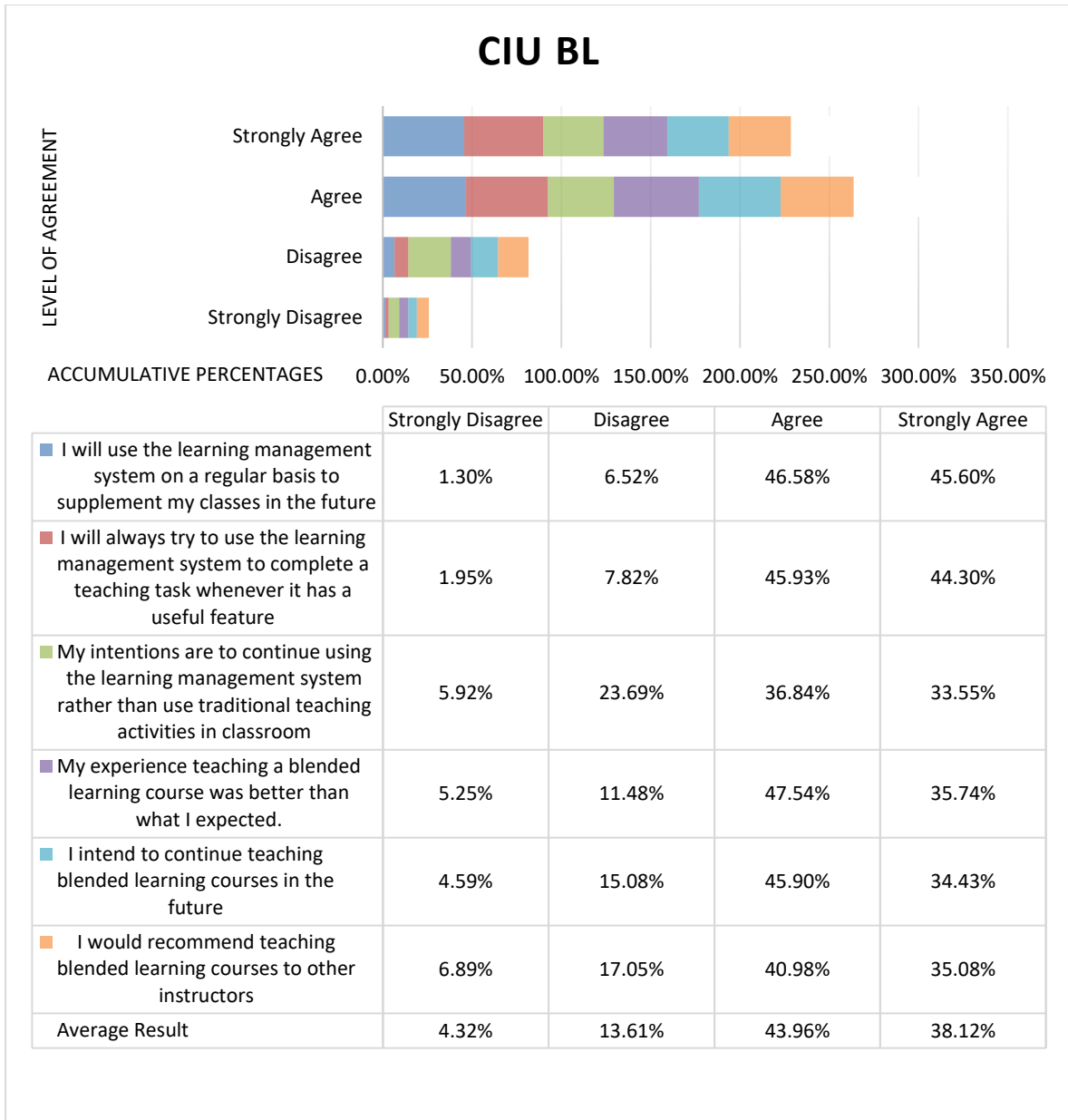


Figure 5.28 CIU BL

As shown in Figure 5.28, the highest response was 43.96% (corresponding to 140 instructors), which responded as Agree; and the lowest average responses was 4.32% (corresponding to 14 instructors) which responded as Strongly Disagree. A total of 82.08% (corresponding to 262 instructors) have provided positive responses (*Strongly Agree & Agree*) indicating that they would like to continue teaching their BL courses as well as continue using the LMS which is provided to aid in teaching their courses. In particular, an average of 76.33% (corresponding to 244 instructors) provided favorable responses (*Strongly*

*Agree & Agree*) indicating their intention to continually teach their BL courses, while an average response of 91.33% (corresponding to 291 instructors) have provided favorable responses (*Strongly Agree & Agree*) regarding their intention to continually use the LMS to support their BL courses. Additionally, when specifically asking if instructors would like to continually teach their BL courses, 80.33% (corresponding to 256 instructors) have responded that they would like to; while 19.67% (corresponding to 63 instructors) have responded that they would not. Moreover, CIU BL has returned an average mode of 3.0 indicating that the instructors *Agree* that they would like to continue teaching a BL course and continually use the associated LMS.

### 5.5.2 BL Course Type Comparison

Figure 5.29 presents the responses of instructors teaching STEM vs non- STEM BL courses in terms of their continuity decisions.

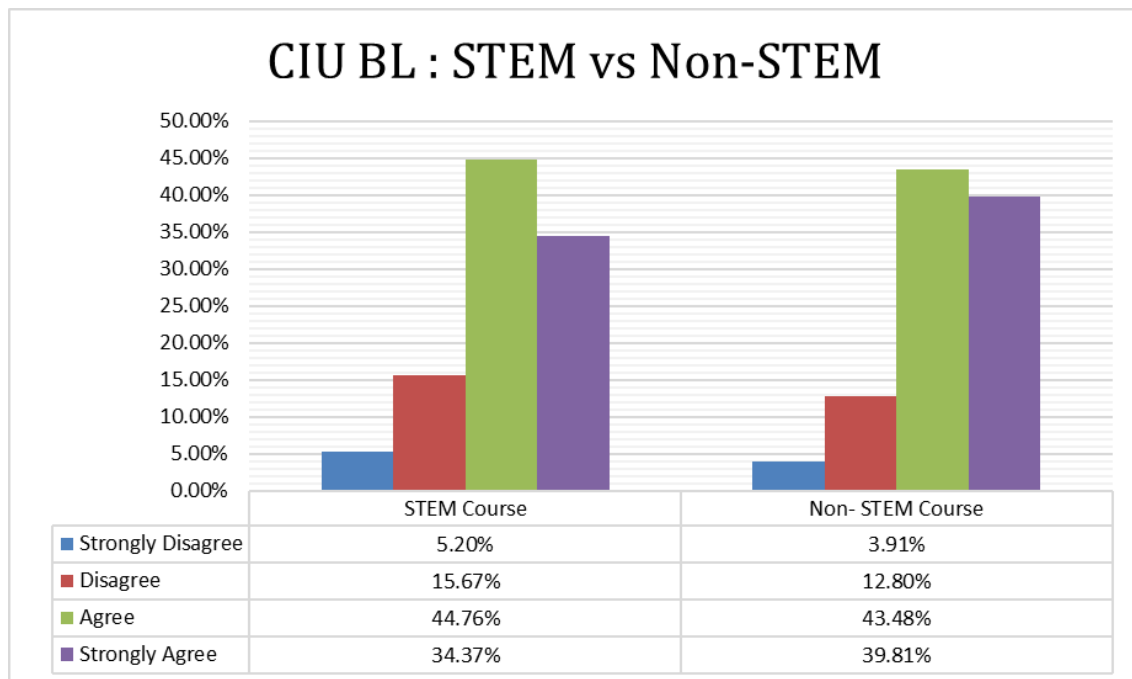


Figure 5.29 CIU BL: STEM vs Non-STEM

As shown in Figure 5.29, the highest response for instructors who teach STEM courses was 44.76% (corresponding to 143 instructors) as *Agree*, while for instructors who teach non-

STEM courses was 43.48% (corresponding to 139 instructors) as Agree. Also, in terms of instructors who teach STEM BL courses, 79.13% (corresponding to 252 instructors) chose favorable responses (*Strongly Agree & Agree*) while, 20.87% (corresponding to 67 instructors) of such instructors chose unfavorable responses (*Strongly Disagree & Disagree*). However, in terms of Non-STEM BL courses, 83.28% (corresponding to 266 instructors) of instructors chose favorable responses (*Strongly Agree & Agree*), while 16.71% (corresponding to 53 instructors) chose unfavorable responses (*Strongly Disagree & Disagree*). Thus, instructors who teach non-STEM BL courses have a slightly greater intention, by 4.15 % (corresponding to 13 instructors), to continually teach BL courses and use the associated LMS than those teaching STEM courses.

### 5.5.3 Previous DL Experience Comparison

Figure 5.30 presents the responses of instructors who have previous DL teaching experience vs those who do not in terms of their continuity decisions.

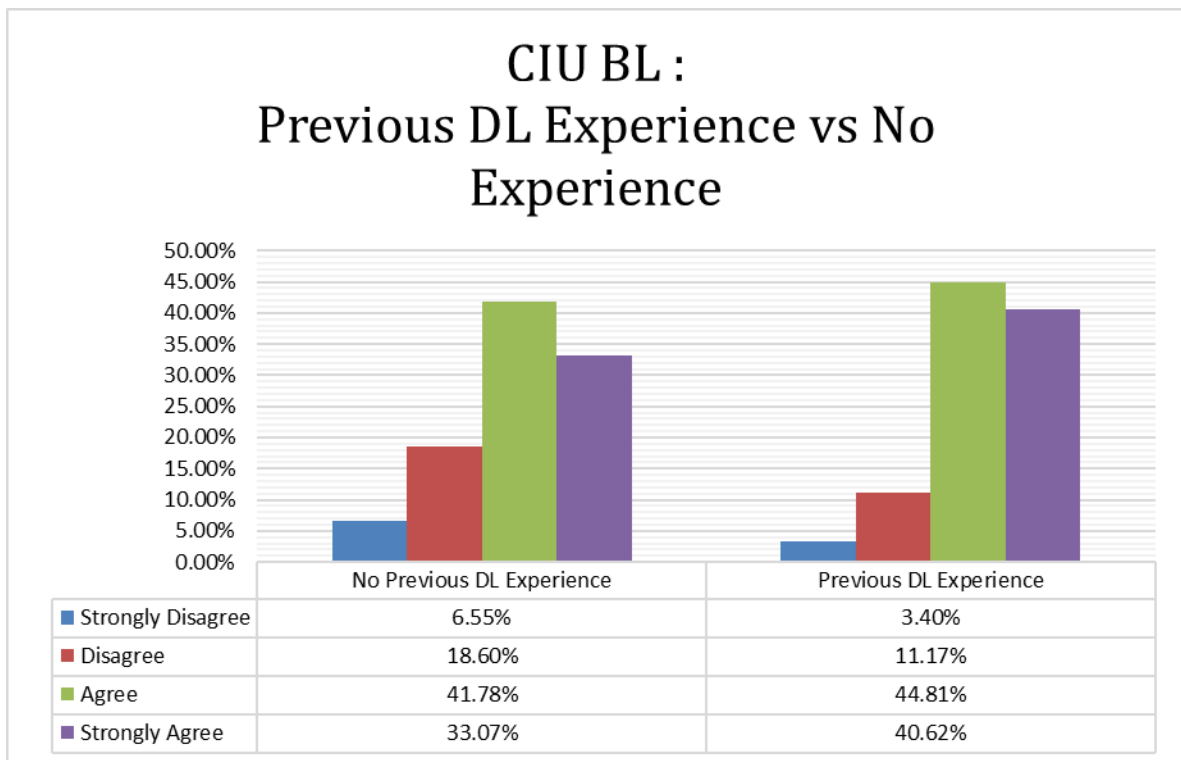


Figure 5.30 CIU BL: Previous DL Experience vs No Previous DL Experience

As shown in Figure 5.30, the highest response for instructors who have previous DL teaching experience was 44.81% (corresponding to 143 instructors) as Agree, while for instructors who do not have previous DL teaching experience was 41.78% (corresponding to 133 instructors) as Agree. Also, in terms of instructors who have previous DL teaching experience, 85.43% (corresponding to 273 instructors) of instructors chose favorable (*Strongly Agree & Agree*) responses while, 14.57% (corresponding to 46 instructors) of those instructors chose unfavorable responses (*Strongly Disagree & Disagree*). Also, in terms of not having previous DL teaching experience, 74.85% (corresponding to 239 instructors) of instructors chose favorable responses (*Strongly Agree & Agree*), while 25.15% (corresponding to 80 instructors) of those instructors chose non favorable responses (*Strongly Disagree & Disagree*). Thus, instructors who do have previous DL teaching experience have a greater intention, by 10.58% (corresponding to 34 instructors), to continually teach BL courses and use the associated LMS than those who do not.

## **5.6 Chapter Summary**

This chapter presented the quantitative analysis of the responses gathered from the 319 participants who took part in the questionnaire. All the participants currently teach BL courses at HEIs in the UAE and based on the demographic results, the respondents teach different course subjects, a majority teaching non-STEM, and approximately two thirds had previous experience teaching DL courses. The quantitative analysis shows that most of the participants have an intention to continually teach their BL courses and use the associated LMS. This is compatible with analyzing the results of the effectiveness measures, as all four measures have a direct impact on CIU BL. The results gathered from the participants show that most of them find the LMS easy to use, useful, and often use and depend on the LMS to enhance their BL courses. Also, the greater portion have expressed their satisfaction with their current BL courses and according to research, user satisfaction is one of the strongest indicators of continual use (Chiu et al., 2005; Cho et al., 2009; Hung et al., 2011; Lee, 2010; Limayem & Chung, 2011; Lin et al., 2011; Lin, 2012; Roca et al., 2006; Sorebo et al., 2009; Zhang et al., 2012).



Additionally, the analysis shows that those who teach non-STEM subjects have a greater intention to continually teach their BL courses. Also, the greater portion of instructors who chose favorable continuity decisions have prior DL teaching experience. Research does show that instructors who have had previous DL teaching experience are more satisfied with teaching future BL courses as they are more technologically prepared and feel less stress with using different teaching methodologies (Marek et al., 2021).

Moreover, a summary of the ranking of the critical factors per dimension, from instructors' perceptions, which impact their BL continuity decisions are depicted below in Table 5.1.

Ranking Description	Critical Factors per Dimension				
	Instructor	Learner	System	Course	Organization
Principal	Instructor Control	Learner Control	System Quality Information Quality Service Quality	Course Flexibility	Training & Development Organizational Support Assessment & Feedback
Valuable	Academic Workload & Time Allocation Instructor Teaching & Learning Style Instructor Attitude	Learner Self-Efficacy Learner Personal Innovativeness		Material Quality & Learning Resources	
Moderately Beneficial	Instructor Responsiveness	Learner Computer Anxiety Learner Technological Experience			
Not as Central					

Not Valuable					
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*Table 5.1 Critical Factors Ranking per Dimension*

The instructors' recognition of the critical factors, System Quality & Information Quality to be of the highest ranking is consistent with a great deal of research which shows that both System Quality and Information Quality have a direct and significant effect on CIU (Al-Samarraie et al., 2017; McGill, 2014; Roca et al., 2006; Saba, 2012). As well, the critical factors Learner Computer Anxiety and Learner Technological Experience, which are categorized as moderately beneficial, may not be of great importance from when they were first identified as the learning environment and HEIs have significantly changed over the years, especially within the UAE. Nowadays learners, within the UAE, are accustomed to using technology in their everyday lives, especially within schools and HEIs, where they use technology and various software in classes from a young age. As a result, learners are becoming more digitally aware and experienced and thus, these factors may become obsolete within the future. Finally, I had presumed that certain critical factors such as Workload & Time Allocation and Instructor Attitude would be perceived as more principal. I had originally anticipated that the critical factors that were related to the instructors' dimension would be perceived as most principal towards their decisions than others. Also, as previously discussed in Chapter 3, research does show that these factors, especially in terms of Instructor Attitude, have a great impact on instructors' level of satisfaction (Arbaugh, 2000; Ibrahim & Nat, 2019; Khasawneh & Yaseen, 2017; Zhou & Xu, 2007) which in turn impacts CIU BL.

The quantitative analysis had influenced the follow-up interviews in terms of gaining a deeper understanding of the participants' reasonings behind their responses. Particularly to understand their overall perceptions towards their current BL courses and how its implementation may have impacted their own teaching experiences and job performance. Also, showcasing the thoughts of instructors related to what drives their BL continuity decisions; and for those choosing unfavorably, what aspects, if any, could change their decisions in the future. Additionally, understanding why certain critical factors were perceived to be more principal than others and trying to identify any cultural critical factors. As previously discussed in Chapter 3, the identified critical factors within the current body

of literature do not consider cultural context nor the nature of students who study within UAE's HEIs, and thus, aiming to do so can help address these shortcomings.

## **Chapter 6: Qualitative Data Analysis: Instructors' Experiences**

This chapter will present the first part of the qualitative data analysis. As previously discussed in section 4.6.2, the qualitative data analysis chapters have been split into two predominantly because they focus on two different points in time, the present and the future. This chapter will present a summary of the data analysis process and outline the manner in which the qualitative data will be presented. This chapter will also showcase the participants' experiences teaching their current BL courses. The participants' experiences are sectioned as follows: general attitudes & opinions, benefits of the BL course, challenges of the BL course, and enhancements. This will be followed by Chapter 7, which will present the second part of the qualitative data which focuses on the participants' BL continuity decisions and the critical factors which impact those decisions.

### **6.1 Qualitative Data Analysis Process**

I had conducted follow-up interviews with 21 instructors who were employed at 20 different HEIs and were currently teaching BL courses within 20 varying course subjects. The demographic information of the participants can be found in section 4.4. The interview questions, presented in Appendix B, were designed to help answer this study's research questions. As previously mentioned in section 4.6, the qualitative analysis followed Braun and Clarke's (2006) six-step thematic analysis process: "(1) familiarization with the data, (2) generating codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) writing the report" (Braun & Clarke, 2006).

The qualitative data will be presented as follows:

1. Instructors' Experiences. This section has four embedded themes which include general attitudes & opinions, benefits of the BL course, challenges of the BL course, and enhancements of the BL course.

2. Continuity of BL (This is presented in Chapter 7). This section has three embedded themes which include on-going use of the LMS, continuous drive teaching BL courses, and future development of BL courses.

3. Critical factors (This is presented in Chapter 7). This section has five embedded themes, which include: technological factors, organizational factors, student factors, instructor factors, and course factors.

I had chosen to showcase the qualitative data in this manner to enable the unfolding of the overall narrative. In doing so, I can also provide sufficient context and an in depth understanding of the participants' future continuity decisions, which are largely based on their overall current experiences.

The below figure, Figure 6.1, demonstrates the portion of the thematic map related to Instructors' Experiences.

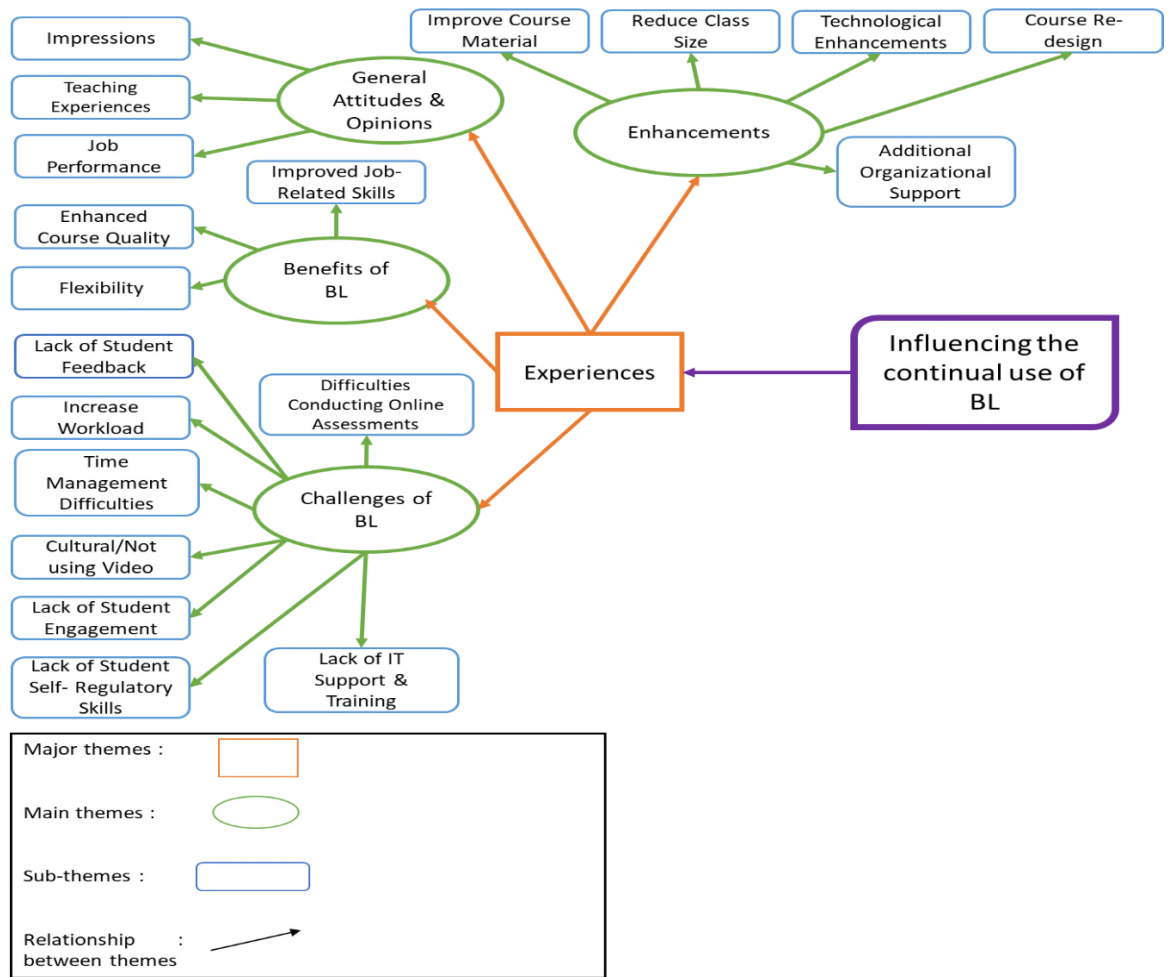


Figure 6.1 Thematic Map: Instructors' Experiences

## 6.2 General Attitudes & Opinions

This section will showcase instructors' general attitudes and opinions towards teaching their current BL courses. It has three embedded themes: Impressions, Teaching Experiences, and Job Performance. The figure below, Figure 6.2, presents the thematic map related to this section and the respective aspects which will be presented.

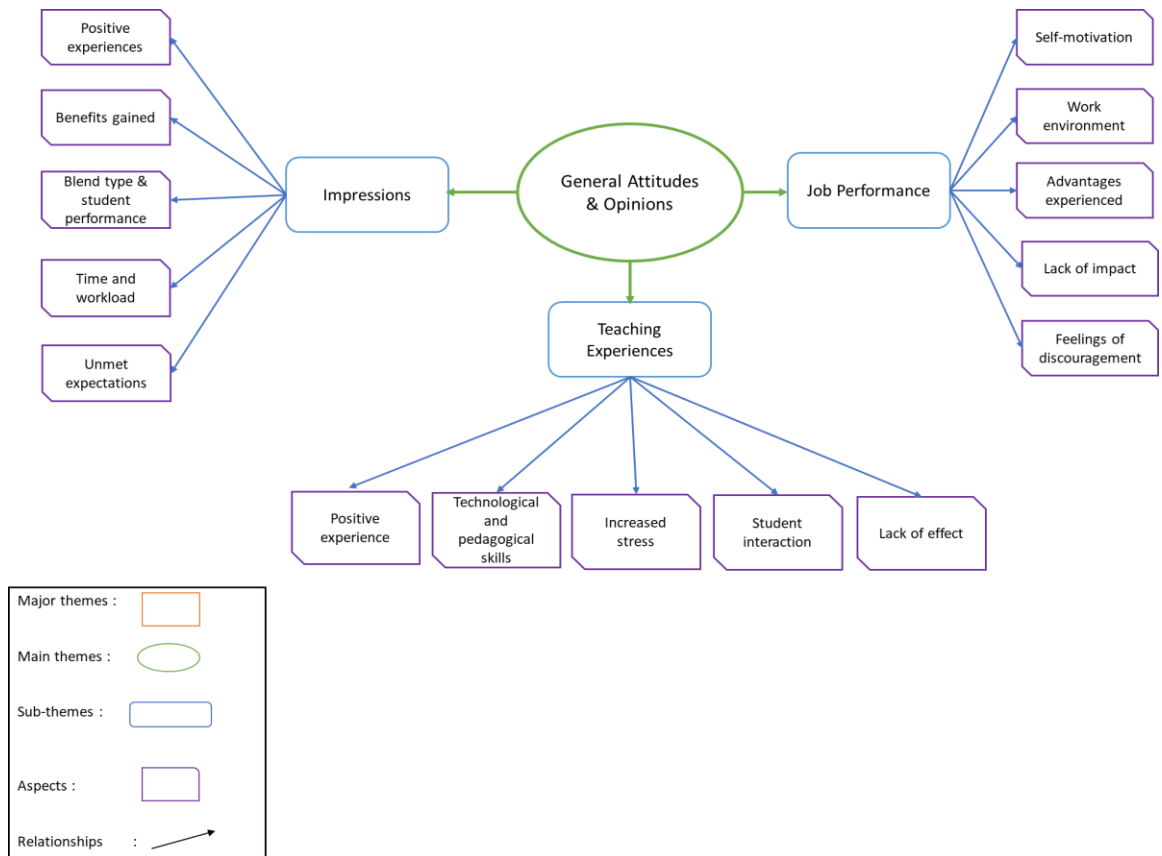


Figure 6.2 Thematic Map: General Attitudes & Opinions & corresponding aspects

### 6.2.1 Impressions

This sub-section will present the instructors’ varying impressions of adopting BL to teach their courses. The key aspects below are positive experiences, benefits gained, blend type and student performance, time and workload, and unmet expectations. Aiming to understand the participants’ overall impressions and opinions towards their BL courses is necessary as their attitudes may be affected by their students’ overall performance and learning capabilities and can influence the successfulness of a BL course and impact their continuity decisions.

Primarily, the participants had discussed their impressions of teaching BL courses in terms of their *positive experiences*. Their positive experiences were made up of either their past BL experiences or their current ones. Some had expressed positivity towards using BL and had explained how some of their positive impressions had been partially rooted from their past experiences.

I've been doing blended and online for many years now and I've also taught traditional on campus, and I find all of them to be very rewarding... the blended environment can be very beneficial for students. If a student is disciplined and they have a real interest in the course they take, then they can do very well (Ryan).

While, others had expressed their positive experiences in terms of their assumptions. Certain participants who had experienced BL for the first time, had conveyed that their experiences were contrary to their initial expectations. The adoption of BL was done steadily by senior management, which had left the participants worried that the experience would be challenging.

When it's new, you feel like it's impossible or difficult. But when we actually tried it and we saw the reaction of students...mostly it was positive...I would definitely go for the BL option again and I would encourage BL at our institution (Christina).

I was quite against it ... I actually used to think it was a buzzword...but I found that I learned an awful lot, I created completely new types of materials...so I would say overall an excellent experience...it's much easier to adapt to something like that and learn from it if you're writing your own materials (David).

Thus, irrespective of the initial pre-conceived ideas of how teaching BL would be like, the participants' attitudes towards BL had changed due to their current positive experiences.

Another manner in which the participants expressed their BL impressions was in terms of the *benefits gained*. It was repeatedly explained how the advantages which they had experienced from the implementation of their BL courses had contributed towards their impressions.

I enjoyed it pretty much because of the new online options provided to us....a lot of implemented tools and online functions allowed us to come to make full use of this newer BL...because of the many aspects of my courses that are technical, so I really enjoyed it (Helena).



We have the opportunity to enhance some techniques which is very, very important.... By having this blended...I think that we cannot go wrong because we can take advantage of both ways of...promoting knowledge and skills for our students (Kevin).

Its positive overall because it manages us to achieve a lot of things which we couldn't make only through face to face (F2F) teaching. Like now you can teach and reach the student anywhere (Majed).

Thus, the participants' perceptions of BL being advantageous compared to other teaching methods had contributed towards their positive attitudes. The instructors' positive impressions does indicate their overall satisfaction with their current BL courses and can shed light on the probable favorability regarding their BL continuity decisions.

An additional aspect of the participants' BL impressions related to *blend type and student performance*. Most participants expressed mixed impressions towards their BL courses as they had faced difficulties with the implementation of their BL courses. However, their acknowledgement that BL would be the future of higher education in the UAE and the benefits which they knew BL could offer, had contributed towards their overall mixed impressions.

My impression is sort of mixed, I think depending on how the blending is done...blended that we did was two thirds online and then F2F for the rest and for all exams... It wasn't nearly as good as just doing online...nor was it as good as doing just F2F (Jerry).

Whether we like it or not...It is the future. It is very useful if used correctly. But my main concern is it takes a special type of learner to join a university that follows only a BL system...unfortunately up until now I never seen a learner who is...how can I put it, ready for this type of smart education (Mohamed).

I do think for first year first semester students, it's not entirely ideal, because they don't necessarily have the maturity levels to deal with the independent

tasks...However, I do think older students are more able to cope with it, cause they're already getting ready for going to the workplace. So, it then has its merits (Grace).

Thus, their mixed impressions were a result of the type of blend adopted and their students' inability to perform as well within the BL environment. The concept of blend type was a reoccurring issue which was brought up by several participants during various stages of the interviews, as they had believed that the type of blend adopted had caused difficulties for both them and their students. On the contrary, others had expressed positive impressions due to their students' performance. This was particularly true for Albert who had proclaimed that *"I now have a positive view because I have seen that the students' interest and the students' output is not affected in a major way"*. Their views had also changed from their initial pessimistic feelings, as a result of the overall course outcome.

Moreover, an alternative aspect of the participants' BL impressions related to *time and workload*. The time and effort required to implement and teach the participants' new BL courses had constructed some of their mixed impressions.

It was not easy, we had to change the preparation, change the class activities, so it required extra effort...on the other hand, it was an opportunity and a new learning experience where you can challenge yourself and your students (Mina).

We had double preparation to do and double effort to pass the information properly to the students. It was hard work to make the exams online, to avoid cheating, and then be able to follow up with everyone...but at the same time, it is like a new experience. It was a new challenge that was good sometimes (Lillian).

Thus, the majority of the participants' mixed attitudes are comprehensible, as they had expressed a range of different emotions and experienced varying benefits while simultaneously facing several difficulties. They had also clarified on numerous occasions how they believed that BL could be advantageous to both them and their students despite the challenges faced.

Lastly, a further aspect of BL impressions related to the participants' *unmet expectations*. Contrary to what had occurred with those who expressed positive impressions, others were met with extreme disappointment after having initially expressed positivity and feelings of excitement once their BL courses first began. The participants' negative impressions towards BL was also a result of their disappointment regarding their students not progressing academically as they had initially anticipated.

Student attention or we could say engagement is much lower when they take the classes that are online...when we go to the assessment...you get shocked from the result...many students score very low grades, compare this to two years ago when we just had traditional F2F delivery (Fares).

I cannot transmit more than...50% of what I used to be able to transmit during my F2F teaching sessions...I use a lot of these online instruments...I tell them to watch the videos every week...But it's just not the same...It's not working at all (Catherine).

Thus, as a result of their current experiences, they considered that using the traditional F2F teaching methods would be more suitable. This was particularly true for Catherine, who had conversed about her successful experiences teaching BL courses within a different country, however felt that using BL as a teaching methodology for her students in the UAE was not appropriate as they were unable to excel with the inclusion of the online environment.

The participants' negative accounts have provided a glimpse into the challenges faced and may possibly indicate their probable unfavorable BL continuity decisions. Also, by gaining an in-depth understanding into all the participants' varying impressions, their emotions regarding the implementation of BL and teaching of such courses was explored. This is important in aiming to further comprehend their general attitudes and overall perceptions, particularly that instructors' emotions as a result of BL implementation has been insufficiently researched.

## 6.2.2 Teaching Experience

This sub-section will present the effect that BL courses had on the participants' overall teaching experiences. The key aspects below are positive experience, technological and pedagogical skills, increased stress, student interaction, and lack of effect. Teaching experience is another component which ought to be looked at as it can enable greater insight into the instructors' overall attitudes and opinions of their current BL courses. Also, by shedding light on these participants' perceptions towards changes in their teaching experiences, it can help address shortcomings in literature, as there is insufficient research which describes instructors' BL teaching experiences.

Primarily, the participants had discussed their BL teaching experiences in terms of its *positive experience*. They viewed that the adoption of BL had enhanced their teaching experiences.

I think it has enriched my teaching experience. That's the way I would put it...I was definitely able to get the best out of both learning models... It is challenging at first because it puts a lot of pressure on you as an academician but that's the learning curve you have to go through (Albert).

It was a rewarding experience for me because I think I learned a lot, I developed different materials and it's a different teaching situation and it must help you (David).

I found it to be a modern way of teaching...once we got used to it and we adapted our teaching material to it, it turned out to be a very positive experience for me (Helena).

Similarly, Grace expressed her positive teaching experience which had allowed her to become “*more aware of creating learning materials which could be accessible for all types of students*”. The adoption of BL had provided the participants the opportunity to learn how to create new digital course material suitable for the online environment which was also perceived to improve the quality of their courses.

An additional manner in which the participants had expressed their BL teaching experiences was in terms of enhancing their *technological and pedagogical skills*. The possibility of learning how to further use technology within the entire teaching and learning process and adopting various teaching styles, suitable for the online environment, had contributed towards their positive teaching experiences.

It has enriched it, of course. For many years I had been used to one mode of teaching F2F. But all of a sudden when I was forced to do it, I became more determined to succeed and I became more flexible. I have become more eager to learn something. Something in you has changed for the better. I even became much more interested in improving my IT skills (Shannon).

It was a new challenge, but it definitely affected me positively because I had to find and learn new ways and new techniques to let the idea pass to the students. So, let them understand virtually what I'm usually used to do on the board (Lillian).

A number of participants had expressed how the implementation of a new teaching methodology had provided them with the opportunity to learn to be more flexible and open towards the idea of adapting different teaching styles which would suit the online learning environment, especially that many were teaching digitally for the first time. This in turn may impact the participants' decisions for BL continual use.

Additionally, an alternative manner in which the participants conversed about their BL teaching experiences was in terms of *increased stress*. Others had expressed how adopting BL courses had negatively impacted their teaching experiences due to the added pressure involved with teaching online classes.

It put in a lot of responsibility on me as an instructor, because now I have to depend on my ability to convey the concepts correctly using, let's say a much harder mode of delivery because 50% of the classes are now online (Mohamed).

Comparably, Giovanni described his experience as "*very stressful*" and had elucidated that using BL had "*diminished [his] academic experience*". Similar accounts had expressed

negative teaching experiences due to the increased stress and believed that the inclusion of online classes had somewhat jeopardized their level of motivation and care towards the teaching and learning process.

Moreover, an additional aspect of BL teaching experiences related to *student interaction*. There was an overall feeling of frustration with the lack of interaction which the participants had with their students, which had created negative teaching experiences amongst some.

It made my teaching experience more challenging...it tends to be daunting for us professors. It's like you're sitting in a room, talking to a screen for 2 hours and at some point, you feel like you're talking with yourself (Lara).

It's definitely a negative teaching experience now...I'm somebody who's done a lot of blended courses and I really enjoy that format...but it's not working for students here...especially those who are young and...they want the constant interaction that comes with traditional F2F teaching (Catherine).

Therefore, the participants' negative teaching experiences could interpret the majority of the participants' overall mixed impressions towards their BL courses, as teaching experiences may contribute towards instructor attitudes and overall perceptions towards BL.

Lastly, an alternative aspect of the participants' teaching experiences related to BL's *lack of effect*. A minority of the participants had communicated that their teaching experiences were unaffected as they felt that there was no obvious change in the way in which they taught their courses.

I use a lot of technology in my F2F classes, so I would say there wasn't as big of a transition for me... I already used our LMS and other software about as much as I could in a F2F context...so for me it didn't really affect my teaching experience (Jerry).

There is no effect really because what I do in front of students could also be the same on what I do with my online classes...in terms of preparation in terms of the delivery, it does not make any difference at all...it's just a different way of teaching (Aiden).

Their previous experiences teaching BL courses within different HEIs had also contributed towards their feelings that their teaching experiences were unaffected with the implementation of their current BL courses.

### **6.2.3 Job Performance**

This sub-section will portray the effect the adoption of BL courses had on the participants' job performances. The key aspects below are self-motivation, work environment, advantages experienced, lack of impact, and feelings of discouragement. It is valuable to understand the participants' beliefs of how the adoption of BL and the use of the associated LMS had influenced their perceived job performance, as it can contribute towards gaining a better understanding of their overall opinions and attitudes towards their current BL courses. Additionally, according to the TAM model, perceived usefulness; which is defined by "the degree to which a person believes that using a particular system would enhance his/her job performance" (Davis, 1989, p. 320); has an impact on an individual's attitude towards the use of the system.

Primarily, the participants described job performance in terms of *self-motivation*. Several of them had discussed how the implementation of BL courses had motivated them to succeed in adopting and teaching a BL course which they believed had contributed positively towards their overall job performance.

It definitely improved...It made me more determined to succeed...I became motivated to improve as a teacher...I would think of ways to arouse my students' interest...when it came to my students' feedback, it has been amongst the highest of all faculty members...it was even higher than two of my other traditional F2F courses (Shannon).

I had to work more on the material that was presented online as this was the main link between me and my students...if they have to concentrate on something. It would be the screen...the PowerPoint presentations...which they liked, and they thought the new digital material was very beneficial (Lara).

It has actually made me more active myself...with the addition of online teaching now, you have to spend more time preparing digital material and online recording...So, I think it shouldn't really reduce your performance at all because you are teaching classes online (Ethan).

Similar accounts did indicate that the creation of digital course material had required more effort, however, they were more determined and inspired to improve the overall quality of their courses, which they believed to have improved their overall performance.

Another manner in which the participants expressed changes in their job performance was in terms of *work environment*. Having more opportunities to work on varying academic aspects from the comfort of their home was perceived to have resulted in improvements in job performances.

I was more comfortable at home, so I felt I was more productive...I had more time and energy to work on my own research...I even had more time to think of other things which I did not have the time or energy to do when I was teaching all the time in the classrooms (Christina).

My job performance has definitely improved enormously...I found it wonderful because at work I find it very difficult to work on things, like projects. If it's not teaching and it's not prepping the classes. I find other things difficult to work on because the office is just not the place for me to do that (David).

Thus, the participants' felt that their new work environment at home was more suitable, relaxing, and stress free, which was believed to have attributed to their increased job performance.



An additional aspect of job performance related to the *advantages experienced*. The varying benefits which the participants gained from adopting their BL course was believed to have impacted them positively.

It definitely helped improve my job performance...it was more beneficial for me because of the use of many of the new software I used when teaching online...So, the access was easier and also when I teach some of the classes online now I have control over their computers and I can troubleshoot any issue they might have (Helena).

Thus, several participants portrayed feelings of happiness in terms of being able to accomplish more compared to when teaching their traditional F2F courses and viewed BL as useful in terms of being able to improve their overall job performance.

Furthermore, an alternative aspect of job performance was related to BL's *lack of impact*. A few participants had believed that teaching BL courses and changing the mode of delivery had no effect on their overall job performance.

I'm familiar with video conferencing as a work tool. I actually have a lot of experience understanding what you have to send to someone in terms of presentations or digital materials ...so it didn't affect me at all...it was a very natural format for me (Fernando).

If I see the feedback that I received; it seems that my job performance has not changed...definitely the technology did not affect this, that is the important thing...But I suspect that when I am F2F with someone, I am better than being behind the screen (Kevin).

Kevin's own suspicion of possible changes in job performance is in line with research presented by Uttl et al. (2017). They had reported that instructors often misinterpret students' positive perceptions as feedback related to their personal job performance rather than students' contentment with the quality of instruction.

Lastly, another aspect of job performance related to the participants' *feelings of discouragement*. A few participants discussed how teaching BL courses had negatively impacted their job performance as a result of the difficulties faced and negative feelings when teaching their BL courses.

I have stayed motivated unlike a lot of my colleagues...but I am definitely less enthusiastic about teaching...I've had a lot of moments of despair when I thought, you know, there's nothing going through. I didn't get these moments of despair when we were in class full time (Catherine).

There's less enthusiasm when you've been teaching many classes online for a long time...You're unable to build the relationships with your students...I'm teaching classes of 60...and you don't see them as much...it just becomes quite demotivating (Grace).

Although, the participants had tried to stay positive throughout their courses, the discouragement which they had experienced halted them from exerting more effort into trying to create a more successful BL experience for them and their students.

Thus, by showcasing the participants' varying thoughts regarding possible changes in job performance, it has provided insight into further comprehending their overall mixed attitudes and opinions towards their current BL courses. Also, it has contributed to the shortcomings in the existing literature, as insufficient studies portray changes in job performance as a result of BL implementation.

#### **6.2.4 Summary**

This section had presented the general attitudes and opinions of 21 participants. Most of the participants had expressed overall mixed perceptions and attitudes towards the adoption of their BL courses, which may impact their future BL continuity decisions. Their perceptions were comprised of their impressions, changes in teaching experiences, and overall job performance. The majority had believed that teaching BL courses had improved their overall job performance, which in turn would reflect positively on their attitudes and

opinions of their current BL courses. However, there were mixed opinions regarding changes towards their teaching experiences. Moreover, the vast majority had described mixed impressions regarding their BL courses. This was a result of the numerous challenges faced as well as varying benefits which they experienced and know could be reaped from the adoption of BL. The specific benefits which the participants had experienced will be discussed in the subsequent section.

### 6.3 Benefits of BL Courses

This section will present the benefits which the participants had experienced while teaching their current BL courses. The benefits identified include flexibility, enhanced course quality, and improved job-related skills. The figure below, Figure 6.3, presents the thematic map related to this section and the respective aspects which will be presented.

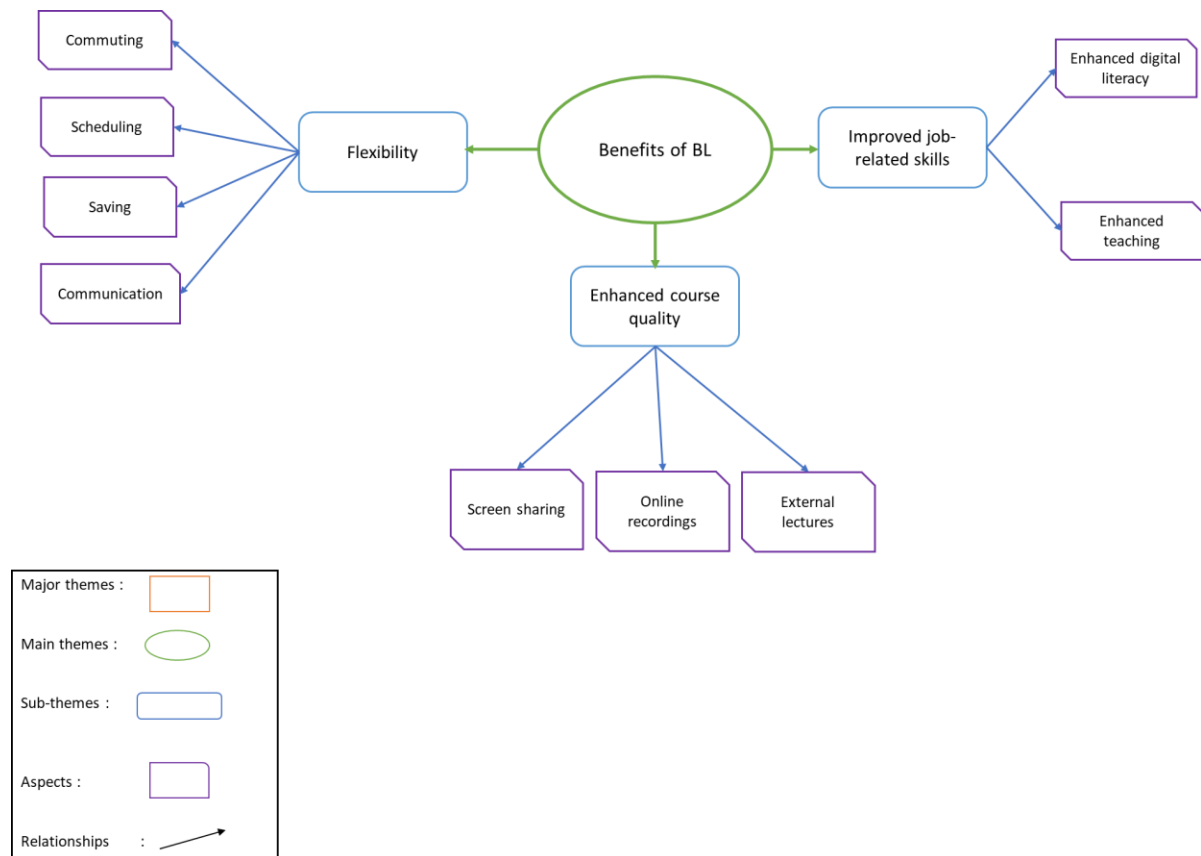


Figure 6.3 Thematic Map: Benefits of BL & corresponding aspects

### 6.3.1 Flexibility

Almost all participants described situations in which they had experienced a greater sense of flexibility from teaching many of their class sessions virtually. The key aspects below are commuting, scheduling, saving, and communication.

Primarily, the participants discussed flexibility in terms of *commuting*. Working from home was said to be extremely beneficial especially for those who lived in different cities from where their HEIs were located. This was particularly true for Mina who had asserted that teaching from home had “*saved a lot of time, because the commute is 2 hours each way*” which had allowed for further time to deal with other work-related matters. Additionally, Christina expressed a similar situation and elucidated that she “*started having more time for research because [she] did not waste time on going to work every single day*”. Thus, the participants believed that lack of commuting required on a daily basis was an added advantage of teaching their BL courses.

An alternative manner in which the participants described flexibility was in terms of *scheduling*; particularly in relation to it being more adaptable. They believed that the adoption of their BL courses had provided them with more flexible scheduling opportunities. This had often made them feel that their schedules were not as packed, and they were no longer rushing in between classes.

The fact that we were working distantly too, it tends to have a lot of advantages. Basically, you don't feel you're crammed with time. You don't feel you have to rush yourself to the office nor you have to rush yourself to the classroom (Lara).

I feel it's sometimes more efficient than before...moving from one class to another...its sometimes easier to just join in on an online class...you can use the full time of the session (Majed).

This had resulted in them feeling that, during the online sessions, more teaching could be accomplished; especially, as previously mentioned in section 6.2.3, the participants had felt more comfortable and energetic teaching from home.

We were allowed to work from home so we had more time in general for class preparation, we also had that extra time to spend with our families...even the students have more time to spend with their family cause they're not coming and spending the entire day on campus (Ryan).

Hence, there was a general perspective that working from home had allowed them to relax and focus more on work as well as other work-related projects, which translated into a greater level of satisfaction.

Furthermore, an additional aspect of flexibility related to *saving*. It was expressed how no longer commuting daily to work had allowed instructors to save money on certain transportation expenses such as gas. Shannon also believed that teaching more from home had allowed for further savings in terms no longer needing to buy as much “*new professional clothing*” (Shannon). She had perceived this to be most advantageous for women who often spend more time and money getting ready for work.

Lastly, an alternative aspect of flexibility related to *communication*. Once BL courses had been adopted, various forms of communication such as online chat rooms, WhatsApp groups, and online office hours, had been implemented. Certain participants believed that teaching their BL courses and working a great deal from home had provided them with the flexibility of communicating with their students beyond the traditional set office hours. The inclusion of online chat rooms allowed them to respond to students’ queries in a timely manner as it was easy for students to send chat requests which they “*could respond to faster during the class discussions*” (Fernando). Concurrently, the incorporation of WhatsApp class groups had also allowed them to quickly respond to students’ requests after class times.

I would get probably half a dozen WhatsApp messages a day when there wasn't an exam, and when there was an exam I was getting WhatsApp messages all time, but that was great because they could send me a question and then I could just send them a voice recording to explain the particular topic (Jerry).

The implementation of online office hours was also seen as advantageous as it had provided them the opportunity of supporting triple the number of students they normally would, as it was much easier for students to join the online office hours rather than physically meeting on campus.

### **6.3.2 Enhanced Course Quality**

The enhancement of course quality was a common advantage expressed by many, which had predominately stemmed from the added features of online teaching. The key aspects below are screen sharing, online recordings, and external lectures.

Principally, the participants had discussed enhanced course quality in relation to *screen sharing*. The use of online screen sharing was seen as beneficial as it had allowed the participants to explain certain course concepts in a clearer manner.

The way I could present these materials was really excellent...teaching things like complexity clauses. I was able to manipulate parts of sentences and show them how it's done because they often read words but don't think of the ideas...when you're doing it on a screen in front of them then they are more focused (David).

When I teach some of the classes online now, I can share my screen and help the students with any problems they may have...The courses I teach, a lot of software are involved. A lot of hands on activities, programming, data analysis, data modeling, so I need to demonstrate to students (Helena).

The use of screen sharing was also helpful in providing quicker feedback and support as they could see their students' screens. This was particularly important to participants who taught STEM courses, as it had helped in teaching technical aspects and also checking if their students were able to solve certain concepts correctly. Lilian also discussed "*the possibility to share some websites from the screen and show examples*" which was helpful when students were unable to grasp certain topics. Thus, the inclusion of online screen sharing was perceived as an added value, compared to when teaching F2F courses, which had led to an improvement in course quality.

An additional manner in which the participants conversed about enhanced course quality was in terms of using *online recordings*. As previously mentioned in section 2.5, the MOE had mandated the recordings of all online sessions once various BL courses were adopted. The inclusion of these online recordings was seen as advantageous by many.

We are recording classes at my institution so this is an option that my students like because they can re-watch it later...they can go back and look at the lectures...They then watch videos and can ask questions about the recorded lecture during the next F2F session (Wilson).

A lot of my lectures were not taught live. I had some that were prerecorded so students had access to them all the time which allows them the flexibility of doing the tasks based on that...also they could ask me questions during the live sessions and I would explain to them what was not understood (Fernando).

We had a requirement that came down from the ministry to record lectures, so I was able to do that and then I can slice or edit them apart and kind of put like I'll say highlights...So to me they were quite advantageous...because especially with English for second language students. If they hear it a second time, then maybe it sinks in better (Catherine)

Thus, the inclusion of online recordings was beneficial in terms of helping facilitate the learning process as well as allowing the participants make better use of the F2F sessions, as these sessions were considered limited.

Moreover, an alternative aspect of enhanced course quality was related to *external lectures*. The inclusion of online teaching permitted the incorporation of more online workshops, webinars, and guest lectures.

These are some advantages that can only be in a BL mode with some online classes. Yeah, I mean you cannot organize with Europeans or Americans webinars every

week if you're in campus and teaching only F2F. Of course, now, we can take advantage of this (Kevin).

The simplicity of setting up additional guest lectures from anywhere around the world was seen as a principal benefit of BL to certain participants, due to their course subjects which required guests to be invited on various occasions to provide lectures or different workshops.

### **6.3.3 Improved Job-Related Skills**

The improvement of different job-related skills was another common advantage experienced by many. The key aspects below are enhanced digital literacy and enhanced teaching.

The participants had conversed about the improvement of their job-related skills in terms of *enhanced digital literacy*. As a number of them had not had the opportunity to previously teach any type of DL course, an enhancement in IT skills was commonly expressed.

Up to the start of this, my IT skills had been ok...I could deal with this and that, like the basics. But I had not been really confident...since the start of giving courses online, using this blended approach.... now I can tell you with great confidence that I can teach any online class for more than three hours (Shannon).

Thus, once the BL courses were adopted, the participants were motivated to better learn how to efficiently use the LMS and any other accompanying software, as having the necessary digital literacy is seen as compulsory in successfully teaching within the online environment.

Meanwhile, an additional aspect of improved job-related skills was related to *enhanced teaching*. The improvement of different teaching skills to suit the online environment was seen as an added benefit of the implementation of their BL courses.

I learned how to specifically let students be interested and engage them more...I started using triggering ways to engage the students in different ways during the



online teaching...which sometimes was even more engaging than in the physical classroom (Christina).

Similarly, Fares asserted that he had improved his online teaching skills as he had to learn how to “*customize [his]teaching to this new model* “ and understand “*how to talk online to students and how to better deliver the material*”. Thus, the adoption of BL, motivated the participants to learn different ways to adapt their teaching styles to engage students and ensure that they were able to grasp the course material in the online environment. Ultimately, they had demonstrated feelings of proudness for significantly improving their job skills as they knew it was necessary for their BL courses to be successful.

### **6.3.4 Summary**

This section had presented the benefits which the participants had experienced when teaching their BL courses. The majority of the participants identified the following benefits: flexibility, enhanced course quality, and improved job-related skills. Thus, portraying such benefits is necessary in providing further understanding towards instructors’ overall experiences of their current BL courses. As well, the identified advantages shared by the participants are a result of actual teaching which research insufficiently addresses and alternatively focuses on students’ experiences. Also, other common advantages of BL, which are often presented in research studies and portrayed in section 3.2, were identified by the participants as challenges, which will be discussed in the subsequent section. This in itself showcases the necessity of identifying benefits from an instructors’ perspective particularly in the context of the UAE, as culture can play an important role in impacting instructors’ own experiences.

### **6.4 Challenges of BL Courses**

This section will present the challenges faced by the participants while teaching their BL courses. The challenges identified include increased workload, time management difficulties, cultural/not using video features, lack of student engagement, lack of student self-regulatory skills, lack of student feedback, difficulties conducting online assessments,

and lack of IT support & training. The figure below, Figure 6.4, presents the thematic map related to this section and the respective aspects which will be presented.

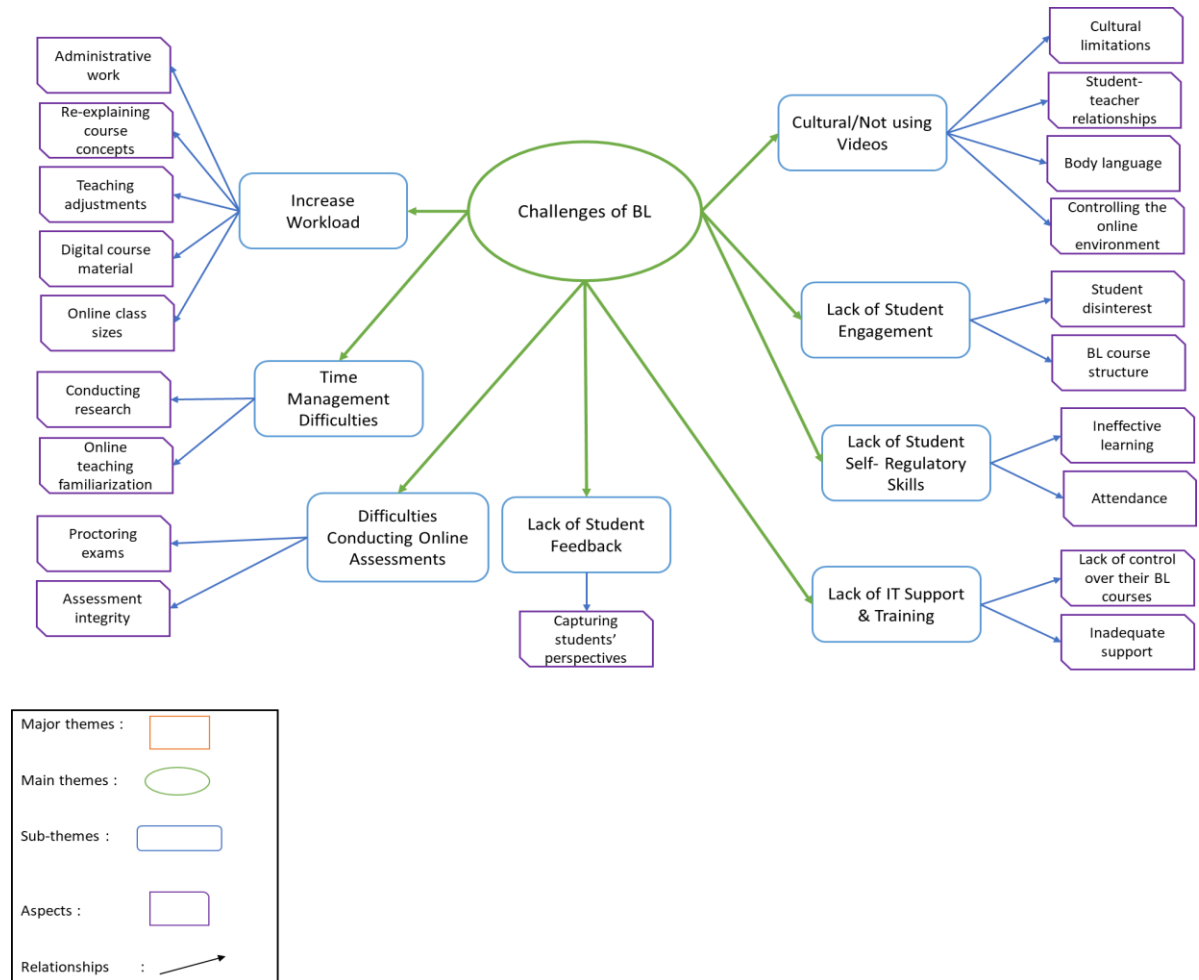


Figure 6.4 Thematic Map: Challenges of BL & corresponding aspects

### 6.4.1 Increased Workload

One of the most common challenges discussed, amongst the majority of the participants, was the increase in workload. The key aspects below are administrative work, re-explaining course concepts, teaching adjustments, digital course material, and online class sizes.

Primarily, the participants described the increased workload in terms of *administrative work*. An increase in administrative workload, was experienced by certain participants, who often found themselves working almost double the amount they usually would, compared to when teaching their traditional F2F courses.

We are all working more than 60 hours...and most of our work is admin work...interacting with the students and dealing with their complaints because we keep changing the way we are blending our courses (Giovanni).

The students, the administration, everybody thought that because you are at home most days of the week practically you work all day long. So that was a big challenge and on top of this there was more bureaucracy...I would say at least 4 times as much...So bureaucratically that was not a good idea...we had more reports, we just had a nightmare (Kevin).

Thus, the increase in administrative workload had left the participants feeling frustrated with the implementation of their BL courses and had partly contributed towards their negative experiences.

Another manner in which the participants considered the increased workload was in terms of *re-explaining course concepts*. This was seen as a disadvantage of their BL courses as there were many instances where the participants found themselves needing to further help their students understand the course material.

Although all the instructions were given in those six or eight hours, the students had to have a lot of one to one with the faculty and because of that, it stretched beyond the six or eight hours of studio work...We had to give much more (Albert).

You do the recorded versions of the lecture and then you have to have an online session with them in case they have any questions to ask and then you end up actually lecturing again. So, you are effectively double teaching (Ethan).

I received several mails from students telling me that it is hard for them to follow. Please can we see you in extra office hours F2F so we can ask questions...so this was also a double work for me because my fixed office hours are known through the week. I then had to multiply them to help the students understand (Lillian).

Thus, the participants felt that the implementation of BL had required a lot more time to be devoted to re-explaining course concepts to students, as a result of the difficulties faced from the inclusion of the online environment. Their workload had also significantly increased due to the initial time it took to re-create the online course material as well as the considerable increase in office hours provided to students.

Additionally, another aspect of increased workload related to *teaching adjustments*; particularly in terms of adapting their teaching methods to suit the online environment.

I have to make sure that I have conveyed the idea behind what I'm trying to teach. It takes more effort this way. It takes a new technique that we had to learn. When you're teaching and they're away and you want to make sure that they get the logic. You will have to follow-up and ask more questions to make sure that through their answer they understood the logic (Mohamed).

I have to spend more time in that constant communication loop with students for follow up...any time you teach virtually you have to over-communicate...there's a lot of repetition involved.... your strategic communication has to be increased in order to make sure that things are sinking in, and that they're going to complete their assessments on time (Fernando).

The participants had proclaimed that the students who took part in BL courses were unable to understand course concepts as clearly as they normally would in a F2F environment. Thus, they had to spend considerable time and effort to adapt their teaching methods to ensure that their students were able to grasp the course concepts. Even though this had contributed to an overall increase in workload, it was seen as necessary to ensure the successfulness of their BL courses.

Moreover, an alternative aspect of increased workload related to *digital course material*; particularly in terms of creating and updating existing course content to suit the BL courses.

You have to continuously change things...make changes to the assessments and especially to the course material...you need to maintain the quality of the course...and there are a lot of expectations from the students and your institution to adapt quickly and know how to do things (Mina).

You need to take time to find and adapt your exercises. I've created a whole raft of new exercises. There's a whole series of new things and I've started again preparing my classes in greater detail...So yeah, a lot of changes which took a lot of effort (Catherine).

I had to adapt all my activities because of the change of the way of teaching and learning...we need to keep our database up to date... so there were a lot of changes in respect to the course material made to my course (Helena).

There was a general perspective that the existing material was completely unsuitable for the blended mode and as a result they had spent considerable time and effort re-creating digital course material which would suit the online environment. As well, the re-creation and updating of course material was also seen as necessary to make up for the lack of sufficient F2F interaction. For example, Ryan explained how he “*had to spend more time looking for video materials, looking for PowerPoints, looking for things to enhance the classroom, and integration of interaction*”. Thus, the inclusion of a large number of online classes, had required an emphasis on creating digital course content to enhance the level of student engagement and overall interest with the course.

Lastly, a further aspect of increased workload related to *online class sizes*. As previously mentioned in section 2.5, once BL courses were adopted within various HEIs, senior managers had decided to join different course sections together during the online sessions.

I have 40 students...imagine when you have a quiz...when you have a project, you need to grade for 40 students...the workload increased...and making the balance between work and life, is now a little bit more challenging (Fares).

The increase in number of students was perceived as significantly challenging especially to those who taught courses that required a lot of one to one discussion. Thus, certain participants found themselves exerting a lot more time and effort to deal with the larger number of students in order to ensure that they received the same quality of instruction as they normally would during their F2F courses.

### **6.4.2 Time Management Difficulties**

Another common challenge discussed among several participants was related to time management difficulties. The tremendous increase in workload experienced, as discussed in the previous section, was believed to have resulted in time management difficulties. The key aspects below are conducting research and online teaching familiarization.

Primarily, the participants had discussed time management difficulties in terms of *conducting research*. Many had elucidated the struggles of efficiently managing their time, as they felt that they were ambushed with a great deal of workload, which had hindered their ability to conduct their own research.

I used to publish 12 high quality papers per year. This year, I will be happy if I have four and these four are a remainder of the ones I had written from last year. So, I had absolutely zero time to work on something new (Giovanni).

I could not publish the way I wanted, I could not review research papers the way I did, because I felt I was mentally occupied all the time by figuring out the online teaching part. (Shannon)

This was perceived to be frustrating as many could not publish academic papers as they were accustomed to doing, parallel to their teaching.

Meanwhile, an alternative manner in which the participants described time management difficulties was in terms of *online teaching familiarization*. This was challenging for certain participants as they had spent a great deal of time learning how to teach in the online environment, which they found to be quite different than F2F.

I had to get to know my students and try to communicate with them more when I was teaching the online part...when I attempted to do certain class activities, it would take more time with a particular topic...and then at the end we had to move faster to finish the syllabus (Mina).

Almost everything now has to be 1 to 1 and it takes a lot of time. You now have to give them assignments where you are demonstrating certain facets of how that assignment needs to be done...the same goes for design and construction coursework...you need to demonstrate how to do the coursework...It was very time consuming...it put a lot of stress on the faculty (Albert).

Thus, the difficulties associated with time management was endured the most by those who had no prior DL teaching experience, as the inclusion of the online environment took a considerable amount of time getting accustomed to.

Furthermore, participants who taught certain course types which include more practical teaching found more difficulties in time management as a result of the immense time required to explain certain course concepts online compared to doing so F2F. The issue of time management was not discussed amongst a majority of participants; however, Kevin had expressed his opinion on the matter as an administrator.

I saw many people struggling as regards to time management...if you look from the deliverables from other colleagues, what I demanded them to prepare and send me...I can tell you that time management was definitely an issue for many (Kevin).

Thus, the participants' inability to properly manage their time was a result of the stress involved of teaching many online classes as well as the added workload required when

teaching BL courses, such as the re-creation of course material, recording the lectures, and uploading them daily onto the LMS.

### **6.4.3 Cultural/ Not Using Video Features**

Another main challenge, which is cultural in nature, relates to students not using video features during their online classes. The key aspects below are cultural limitations, student-teacher relationships, body language, and controlling the online environment.

Primarily, the participants had discussed the challenge of students not using video features in terms of *cultural limitations*. Both male and female students often disagreed to switch on their cameras due to cultural issues, self-consciousness, anxiety, and privacy concerns.

Ladies in particular say we cover our hair or faces... The students would also explain that we don't want anyone to take photos or videos of us. I understand because of the culture...also the boys...they would come to me and say, I live in a small studio that's not very nice, I don't want anyone to see where or how I live. Please avoid me all types of embarrassment. This is something personal (Shannon).

You don't see students at all...it's a nightmare to only have blank screens. It's outrageous really...and even if I try to impose it upon my students, they don't like it because you know how it works here. They don't want to show that privacy (Wilson).

Thus, there was a sense of extreme irritation with this situation, which often made the participants feel quite distant, as a result of not seeing their students' faces for the majority of the course.

Another aspect of students not using video features related to *student-teacher relationships*. The distance which participants felt from not seeing their students' faces, as often as they normally would within their F2F classes, often translated into difficulties building relationships with their students, especially with the larger class sizes.



There were issues with having this sense of contact with the student, so students were required to turn on the camera, and some of them were very, very reluctant to do so, especially some young ladies did not want to have the camera on all the time (Grace).

I have to make a much more concerted effort...even though I see them sometimes on campus...it takes me time to remember students' names, or sometimes I am able to remember faces. But of course, when we have a lot of online classes and no cameras are on, so it makes it extremely difficult to put a face to the voice...you have to make a big effort to try and build that personal connection when doing so online (Jerry).

The difficulties regarding building an instructor-student relationship was similarly conveyed by certain participants who also spoke of situations where students would also “*refuse to use the audio [function] as well*” (Mina).

It's too many students and they're not putting their cameras on nor their microphones...when you've got 25 you just don't have the time...body language saves you a huge amount of time, but because you don't have it all the time now, it's just very difficult (Catherine).

Thus, keeping track with students' queries alongside teaching had become difficult as the students had often decided to type in the online chat instead of actively speaking and participating during classes.

Moreover, an alternative aspect of students not using video features related to *body language*. The lack of body language and being unable to see the student's facial reactions was a common concern expressed by many. However, a few participants had also explained that the lack of bandwidth capabilities of the LMS was another reason in which they could not see their students' faces.

It's a bit impersonal in a sense...because you don't see a face, you can't concept check...You can't see students...if you're a teacher, you're spending a lot of time looking at students' reactions to what you say...see if they're grasping your ideas. You clearly can't do that online (David).

When you're teaching online and none of them turn the camera on, or a microphone. Yeah, I have no idea who they are...at least in the classroom you can see them. You can see who's engaged. You can see who needs help by just looking at their reactions (Grace).

The participants had stressed that they often depend on body language and facial expressions to understand how their students engage with the course material. Thus, the inability of watching their students' facial expressions was seen as detrimental, as it was difficult for the them to understand if their students were grasping the course material or needed further help re-explaining course concepts.

Lastly, an additional aspect of students not using video features related to *controlling the online environment*. The cultural limitations and privacy concerns had created further challenges such as not knowing “*if students [were] attending when conducting lessons online*” (Aiden). Likewise, Christina expressed how teaching online classes became challenging for her and many other instructors which she had spoken to as often times they were unaware of “*who's behind the screen or next to the screen and who's doing the projects and other things*”. Being unable to see the students created worry amongst a number of participants who felt that it became difficult to control the learning environment and thus, questioned whether their students were actually attending or learning during the online sessions.

#### **6.4.4 Lack of Student Engagement**

Another challenge discussed by all the participants is the lack of student engagement, during the online sessions, of their BL courses. The key aspects below are student disinterest and BL course structure.

The participants had described the lack of student engagement in terms of *student disinterest*. It was commonly discussed how the lack of student engagement is a concerning factor within HEIs in the UAE, yet became particularly prominent when taking online classes, as it became extremely difficult to attract students' attention.

Student engagement really is a very big problem...How you're going to redirect and refocus the student's attention so that they will understand the lesson?...Now I suspect that they may not be attending then eventually they would be reviewing the video for their own benefits in order to get something for examination purposes only (Aiden).

I think that class size is really of utmost importance in this case. When you have a big class in an online setting then you are bound to have students that don't want to participate for sure...They would turn off the camera and they did not want to participate again (Kevin).

Similar accounts portrayed how several students would be seen logging in for their online classes while being pre-occupied with other things, such as being at work, sitting at a café, or driving.

Engagement is much lower when they take the classes that are online...I cannot see many students because they turn off their camera but some, I could see play with their mobile phone...sit in a room with other people. So, you cannot follow the students to make sure they are with you...you notice only a few students are really keeping track with you. I know they are not really concentrating because of the lack of participation (Fares).

What I saw visually was literally students just sitting back looking at you...they were sitting at their desks or at their coffee shop, or wherever they were...when we were online, so it was the challenge of keeping them engaged and getting them to realize that they needed to take part...and analyze what was being said as they were going, not just absorb (Fernando).

These kinds of situations were believed to be totally unacceptable and was perceived as proof that students were not taking the online classes seriously as they do with F2F sessions.

The students disinterest and disengagement during the online classes left the instructors feeling disappointed. Especially since they had spent a considerable amount of time and effort converting their courses and re-creating digital course content, as previously mentioned in sections 6.4.1 & 6.4.2.

They seem like they are uninterested or disengaged...when you ask them if they have any points they would like to discuss or any issues they would like me to re-explain...not all the students even participate and when they do, they usually type in the chat...it is definitely frustrating as an instructor and disappointing to a certain degree (Mina).

There was a general perspective that many students were believed to be so unmotivated to the point that they rarely asked any follow-up questions, even after watching the pre-recorded sessions which had been previously uploaded.

Additionally, the participants' believed that the use of the online environment had made it extremely challenging to manage students' disinterest.

You don't have full control over your audience in a way that if someone loses interest or gets out of focus, you will not be able to sense that the same way you would do if you were teaching F2F sessions...the student for instance, turns off their camera, you lose control (Helena).

It was hugely difficult because there are a lot of students who are not participating and engaging... they seem pre-occupied with other things...you have perhaps one group who is but the others not really. You can't just nudge them as I do in a traditional class (Catherine).

As a result, it often became difficult to ensure if the students were paying attention and understanding what was being conveyed. It had also required a lot of effort to find different ways of trying to engage their students and encourage them to participate during the online classes. Hence, there was a sense of urgency of finding various ways to enhance participation and engagement to try and solve the drastic drop in students' interest. Giovanni spoke of such

extensively and explained that due to after course surveys being conducted at his HEI, “students have admitted that they didn’t participate in all the classes the whole semester, they participated in two or three classes only”. Thus, there was a general perspective that senior managers ought to permit instructors to provide certain grades for participation, which was believed to be the only solution to impose participation, if BL courses were to be provided in the future. Further enhancements related to student engagement will be discussed in subsequent sections.

Moreover, another manner in which the participants discussed the lack of student engagement was in terms of the *BL course structure*. The challenge of student disengagement was believed to be a result of the number and duration of the online classes.

The session is for two hours...Which is staying in front of a screen for a student is such long time...I received several mails from students telling me that it is hard for them to follow (Lillian).

Thus, it was believed that due to their “*limited attention span online*” (Wilson), students had encountered difficulties paying attention and participating throughout the duration of the online sessions.

#### **6.4.5 Lack of Student Self-Regulatory Skills**

Students’ lack of self-regulatory skills was another common challenge discussed among most of the participants. The key aspects below are ineffective learning and attendance.

Primarily, the participants discussed the lack of student self-regulatory skills in terms of *ineffective learning*. There was a general perspective concerning how a large portion of students, who study at HEIs in the UAE, lack the necessary skills related to self-directed learning and self-motivation.

Most of them are not pro-active in their learning, they are just not self-motivated enough for the type of courses I teach, and when you add in some online courses, it becomes a catastrophe...We need you to listen, to merge neurology to the lectures.

But do the students actually do the work? No...It was simply impossible for some of the students to learn this way... Especially when you have very precise concepts (Wilson).

Similarly, Helena stressed that students “*have the responsibility to go back and use the time in [their]week to research what their professor has been saying for the last three hours* “. Thus, students’ lack of self-directed learning was believed to be detrimental in effectively learning the course material using BL as a teaching methodology.

I could just tell that they had not absorbed what they had been doing the previous eight months...they weren't unfamiliar with the concepts which I know were presented in the intro courses...I could just tell that conceptually they didn't process what they learned (Fernando).

Similar accounts expressed discontent with their students seeming unable to efficiently learn using BL. It was perceived to be largely a result of their dependence on instructors and their inability to take control over their own learning process.

Additionally, another aspect of the lack of student self-regulatory skills related to *attendance*. The students’ lack of self-motivation, in particular, was believed to be the purpose for the noticeable reduction in attendance during the online classes.

Sometimes students would log in and then walk away...I'll ask someone a question and they're not there, and then I'll say, are you there and there's no response, so I know they've logged in, but they're not in the classroom (Kevin).

There were similar accounts which revealed how the situation had become quite upsetting as students were uninterested in participating and taking part in the online discussions due to their lack of self-motivation.

#### **6.4.6 Lack of Student Feedback**

Another challenge faced by many was the lack of student feedback. The key point below is capturing students’ perspectives.

The main aspect of the lack of student feedback related to *capturing students' perspectives*. The participants had discussed the challenge surrounding the inability of understanding their students' opinions in terms of the new teaching methodology and their impressions towards the re-created course material.

We need to find a way to fine tune the course, so it is more productive this way. But that in itself is difficult because usually you enhance your course based on feedback, but I cannot get real feedback from the students this way (Wilson).

When I'm in class, I see the reaction of the students and maybe emphasize on things as a result of their reactions and ...spend more time on some material but when I teach many of the classes online, it was a challenge to try and know they're feelings and how they are perceiving the material (Christina).

Thus, the lack of student feedback was perceived to hinder the necessary quality improvement process as the participants were adamant that gathering effective student feedback is necessary in understanding challenges which students may face as well as providing insight into their perspectives of teaching quality, which may be used to make impactful enhancements. As well, it was believed that the lack of student feedback made teaching the BL courses much more challenging as they were unsure if their students were acquiring the necessary knowledge.

#### **6.4.7 Difficulties Conducting Online Assessments**

Difficulties conducting online assessments was another common challenge discussed amongst the participants. The key aspects below are proctoring exams and assessment integrity.

The participants had described the difficulties of conducting online assessments in terms of *proctoring exams*. The structure of the BL course was one where many of the class examinations were conducted online, which had caused challenges with invigilation.

I cannot properly proctor online in the same diligent manner which is done on campus...even if I put all sorts of proctoring technology, the 100% foolproof factor of seeing whether the assessment is happening in the right way or not is not going to happen. That will only happen if I do a brick and mortar standard examination (Albert).

No software can detect and debrief cheating...some students still cheat during the exam. Even sometimes you find an answer like half a page that is copy and paste from Google...how come? even when we are using Respondus Monitor and Lockdown Browser...which just blocks everything...still, it turns over cheating (Fares).

Thus, there was a belief that as a result of conducting online assessments, instructors would have less control over the environment as they were unable to see students' rooms from various angles. It was also commonly perceived that the conventional software being used, in varying HEIs, were insufficient as they had reported many instances where their students were believed to have cheated.

Another aspect of the difficulties conducting online assessments related to *assessment integrity*. Certain participants were required to re-design their examinations and pose essay like questions or those which would compel students to use critical analysis skills.

It is a genuine challenge for us to make sure that the tests we hold are characterized by integrity, so in our case we have been trying to conduct our tests in such a way that the opportunities for cheating are minimized as much as possible...you have to ask them a question which they have to think more about how to answer...not that they can find the answer anywhere (Shannon).

This was perceived to be difficult for some, as it was challenging to include such types of essay type or critical thinking questions due to the nature of their courses. Nevertheless, the issue related to re-designing online assessments was not most common, as others had indicated that they usually pose such types of questions and are accustomed to changing their exams yearly.



### 6.4.8 Lack of IT Support & Training

The lack of IT support and training was another challenge discussed by several participants. The key aspects below are lack of control over their BL courses and inadequate assistance.

Primarily, the participants described the lack of IT support and training in terms of the *lack of control over their BL courses*. There was a sense of extreme frustration as it was believed that due to insufficient training, they did not know how to proficiently use the LMS and other associated software which led to the lack of control over their BL courses.

I was not qualified. I didn't feel at the beginning that I qualified enough to teach a class via the Internet. In my previous university I was getting a prize for best teacher almost every year from the students. And I never had complaints...But since we began adopting this blended, I have got many complaints (Albert).

There was a general perspective that the participants felt ill-prepared and had required further on-going training beyond the traditional pre-semester training that was provided by the IT department. Also, there was a lack of understanding of how to use many of the features of varying software which were used for differing course subjects. For example, Mina elucidated the need for a great deal of support as she *“had many questions that needed answers”* during the semester, unlike her students who she viewed as *“smarter when using technology”*. Similarly, Giovanni asserted how he felt unprepared to teach online classes as he was *“not familiar with the features that blackboard has and not familiar with lock down browser or monitor”*. This challenge was discussed the most amongst participants who had no previous DL teaching experience as they felt they needed the most assistance throughout the semester. Thus, the lack of control experienced by the participants often led to them feeling unconfident with teaching their BL courses and sometimes would lead to demotivation and negative attitudes towards implementing BL as a new teaching modality.

Moreover, another aspect of the lack of IT support and training related to *inadequate assistance*. It was believed that many of the technological challenges faced could have been

avoided if sufficient and timely IT support was provided. This would have enabled them to use the required technology and understand how to “*take full advantage of all the features that could be used within the LMS*” (Kevin). There were many instances where participants had described their IT support as inefficient.

When we needed help with the system and the updates, the support was not as quick as I wanted. I felt we needed a bit more training and some more IT support follow up during the semester...which I think is necessary...I felt I needed someone to check up on me a month or two later and see what issues I had and maybe they could help me (Shannon).

There was some moments...some critical situations...they [IT team] were not so, let's say active as I wished...so if I was stuck... most of the time it was me who was searching for the solutions and figuring out by myself what I have to do (Lillian).

Thus, the lack of IT support was perceived to be disastrous as they had expected the IT department to provide them with enough assistance to ensure a smooth transition when implementing their BL courses and aid them with any issues which they had faced.

#### **6.4.9 Summary**

This section presented the challenges faced by the participants from teaching their current BL courses. The challenges identified include increased academic workload, time management difficulties, inability of capturing student feedback, problems with conducting online assessments, lack of student self-regulatory skills, lack of student engagement, students not using the video functions, and lack of IT support and training. The differences in the challenges identified by such participants and those most commonly presented in research, discussed in Chapter 3, indicates the significance of re-examining such disadvantages in the context of the UAE. Especially, that certain challenges such as the lack of student self-regulatory skills, lack of student engagement, and students not using the video features were considered as cultural ones due to the nature of students who study within the HEIs in the UAE. Thus, identifying these challenges has contributed towards the lack of cultural research involving the implementation of BL in the UAE. Also, understanding those

from instructors' perceptions and as a result of actual teaching is essential to provide further comprehension into their overall experiences which may also impact their BL continuity decisions. Moreover, to negate some of the challenges faced and improve instructors' satisfaction with their BL courses, certain enhancements were discussed, which will be presented in the subsequent section.

## **6.5 Enhancements of BL Courses**

This section will present the enhancements which the participants believe, if implemented, could improve the quality of their BL courses and their satisfaction with teaching them in the future. The enhancements identified include improvements in course material, reduction in class sizes, re-designing the course, technological enhancements, training, and online student assessments. The figure below, Figure 6.5, presents the thematic map related to this section and the respective aspects which will be presented.

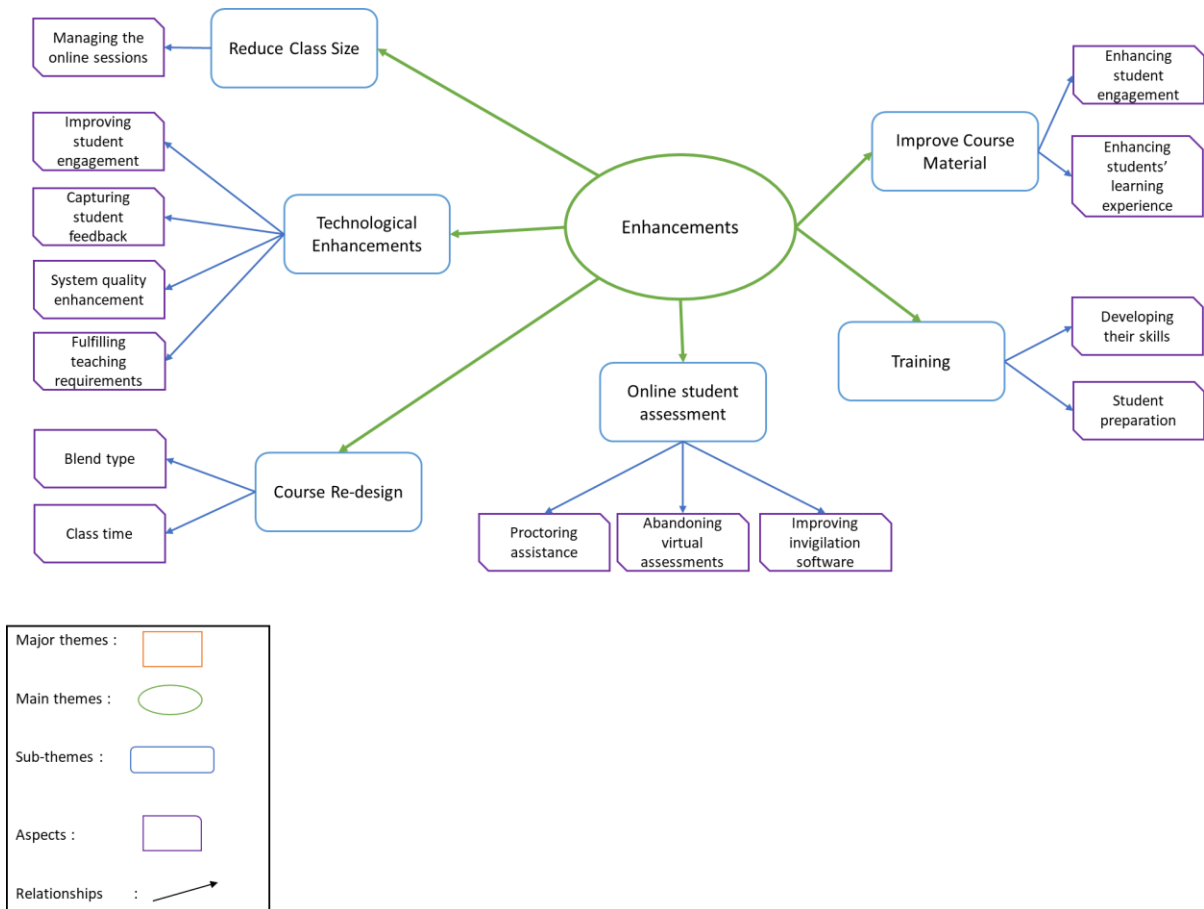


Figure 6.5 Thematic Map: Enhancements & corresponding aspects

### 6.5.1 Improve Course Material

Improving the course material was an enhancement discussed by many of the participants. The key aspects below are enhancing student engagement and enhancing students' learning experience.

The participants discussed the improvement of their course materials in terms of *enhancing student engagement*. They expressed the need to create and present digital course material in a more creative manner to counteract challenges related to student engagement, which was previously presented in section 6.4.4. The improvement of course materials is also seen as necessary in enhancing the overall quality of their BL courses.

We need to include some more interactive material for the students to engage more, to feel that they are part of this group and to lessen their passive part...the quality of the material has to be improved and I think that it has to be offered to them in a different way, in a more critical way, so they won't just be on the receiving part, they will have to engage, they will have to analyze, they will have to pitch in with comments instead of just reading the slides and listening on the other side (Lara).

Similar accounts believed that providing interactive digital material would enable thought-provoking online discussions, which is seen as necessary to provide high quality BL courses. There was also a general perspective that incorporating more visual course material, “*such as connect the dot types of graphic*” (Fernando) may aid in grasping students’ attention and improving their level of interest.

Additionally, the participants suggested the inclusion of online references to ensure that students could grasp specific concepts which may be difficult to explain virtually.

Now I'm working on matrices...I need some references online to show them how to do the thing because I'm not able to do it by hand in front of them, even if I'm working on online board, I cannot see their reaction, if I share my laptop at the same time (Lillian).

Thus, the inclusion of external online references was seen as essential to help counteract the challenges related to student engagement and enhance the BL course quality.

Meanwhile, an additional aspect of improving digital course material related to *enhancing students’ learning experience*. The participants were adamant that enhancing and developing digital course content was necessary to help ensure that students will be provided with a similar, if not better, experience than what was provided F2F.

The materials we've got...we we're constantly developing them...we're not quite there at the level for access for all. So digital course materials we still need to work on making sure that it is equal because we still have a lot of text-based work...we still need to create more interactivity (Grace).

Thus, the participants similarly emphasized that the enhanced digital material should be of the same quality as the text-based ones to provide students with a similar, if not better, course quality compared to their traditional courses.

Moreover, other participants believed that the existing material, which is mostly comprised of traditional static slides, is unsuitable for the current blended model and online teaching environment. Thus, the need to completely re-develop the course material was addressed.

We don't actually have course material designed for a BL course where the material is digital...we should re-look based on how we plan to give the classes, how we should re-design the course material and of course include digital material (Shannon).

The course material should be re-developed to be suitable to the blended model...It's totally not suitable...The material itself should be re-developed to be suitable...for example give more animations, illustration, videos, more graphics, infographics rather than just traditional slides (Fares).

In an attempt of re-creating digital material, there were suggestions involving the inclusion of short online recordings. Christina suggested that such recordings should focus on *“the most important parts of the material without interruptions and should be 20 or 10 minutes long because there's always the limitation of how much we can engage students”* (Christina). Hence, re-developing and enhancing course materials is believed to be able to negate the challenge related to the lack of student engagement. It is thus anticipated that by doing so, teaching BL courses in the future may provide students with a better learning experience than what is currently being provided.

### **6.5.2 Reduce Class Size**

Several participants expressed the necessity of reducing online class sizes. As previously mentioned in section 6.4.1, once BL courses were implemented, more than one class section were combined together during the online sessions. The challenge related to class size was emphasized to be related to undergraduate courses exclusively as they had not

been met with this type of challenge in relation to postgraduate ones. The key aspect below is managing the online sessions.

The participants had described the necessity of reducing class sizes in terms of *managing the online sessions*. It was believed that the increased class sizes had made teaching in the online learning environment more challenging.

Now you are forced to deliver your lesson to 100 students...if we would be assigned different time schedule for different classes in different time frames. We don't mind, as long as the students would be limited, let's say 20-25, because it would be very difficult to manage students who are more than 50 (Aiden).

Managing the larger class sizes remotely was more difficult than what they were accustomed to, as that they had initially expected the class sizes to be “*reduced*” so students would be “*easier to manage*” (Fares). Many of the participants who spoke of this regard, expressed how the issue related to class size was largely due to the nature of their courses which requires a great deal of group work and group discussion. Thus, reducing the number of students online is perceived to be essential to avoid any negative impact on the teaching quality and the whole learning environment.

### **6.5.3 Course Re-Design**

The need to re-design the participants’ BL courses to suit the nature of their respective course subjects was discussed. The key aspects below are blend type and class time.

Primarily, the participants expressed the need to re-design their course in terms of *blend type*. The issue involving the structure of their BL courses had been discussed extensively throughout the interviews as it is one which had impacted the participants’ general attitudes towards BL and the challenges faced.

We should move to a different type of blend. I want to have a half of my classes online and half of them in campus. So, students and instructors, like myself, that really enjoy being in campus would have the opportunity to do this...but on the other hand we could allow for professors or students that either live far and they don't want

to commute every day, or they are much more comfortable behind the camera and they want to use much more technology (Kevin).

Now our courses are not designed for a blended approach, it is designed for a full F2F teaching...we don't even have a proper established blended mode for the courses I teach...the way it is split now is not thought out properly...A look at which parts of the classes will be online and how we need to re-design these parts (Giovanni).

Other participants, such as Catherine also stressed the need for “*further research*” to be conducted which look” *into redesigning the course depending on the course subject*”. Thus, the changes in the design and blend of BL courses was considered of utmost importance to the majority, as it was perceived to be the root cause of the current BL course not being of the same standard as those being taught exclusively F2F.

Moreover, another aspect of course re-design related to *class time*. Certain participants had considered another re-structuring suggestion related to reducing the duration of the online sessions. Lara expressed how this was necessary due to “*the concentration, attention span and the interests of the students [which] will start to fade away at some point*”. As well, participants had believed that as a result of the students’ decreased level of concentration, there was an obvious decline in engagement during the online classes. Thus, it is perceived that if the online class times were to be reduced, then the students may be able to concentrate more and participate in online discussions.

#### **6.5.4 Technological Enhancement**

Numerous participants discussed the need for technological enhancements which relate to either the current LMS or other software which are being used to support their BL courses. The key aspects below are improving student engagement, capturing student feedback, system quality enhancement, and fulfilling teaching requirements.

Primarily, the participants described technological enhancements in terms of *improving student engagement*. There was a common perspective that different technological



enhancements could aid in incorporating more interactive activities which could increase student participation and interest.

We need for tools to focus and report more on what the student does...this was partially lost over the concentration on the students' physical attendance rather than their mental attendance (Helena).

If we can import Kahoot into Blackboard, or if Blackboard can have something like Kahoot, that would be beneficial. So yeah, more type of games...because currently it's just support...basically like, uh, inside the class, not just the poll...and different questionnaires, more type of interactive games and so on. And we should be able to prepare them prior to the class, because even the poll I have to do it during the class. So, I have to stop the class and do the poll (Giovanni).

As previously discussed in section 6.4.4, the lack of student engagement was one of the main challenges faced by the participants, thus, the need to work with the IT department to find varying solutions to improve the students' level of participation was perceived to be detrimental.

I would have the university purchase Nearpod for us...The problem was with the organization, it's that they did not provide a free software...but let's be honest teaching online without having one of these modern platforms. It's challenging...I've found that Nearpod was extraordinary. I think they had everything. They had this editing tool for videos. They had all sorts of different activities that I really needed for my course (Catherine).

Similar accounts asserted the necessity of purchasing other accompanying software which can be embedded within the existing LMS which could be used to improve student engagement.

Additionally, the participants discussed technological enhancements in terms of *capturing student feedback*. There was a general perspective of discovering different

technological solutions “*that can be added in the system to test student feedback throughout the course*” (Fernando) rather than relying on traditional after course surveys.

We need to talk to people in education about finding ways to catch student feedback...perhaps we can implement a diary, or some digital tool and the students can write regularly and explain their own experiences in further detail (Wilson).

Therefore, the ability to capture student feedback through the adoption of varying types of technological solutions was portrayed as essential if HEIs plan to continue providing BL courses in the future.

Moreover, another aspect of technological enhancements related to *system quality enhancement*. Improving the quality of the existing LMS was asserted by many of the participants. There was also an indication that the LMS used, in particular Blackboard, would require further enhancements regarding speed, flexibility, and ease.

Blackboard still didn't develop or customize their software to match the level of requirement needed...I think in terms of software, the development is still not according to the situation we are now dealing with (Fares).

Thus, the participants believed that this enhancement is detrimental as it directly impacts the quality of their BL courses and their overall experiences.

Lastly, an additional aspect of technological enhancements related to *fulfilling teaching requirements*. There were several varying suggestions regarding specific technological solutions which may enhance their own specific teaching needs according to their own course subjects.

I wish we had maybe a tablet where you could connect it to the system and really write on it and do the walking...It's easier to do it than using your zoom mouse...I think that was one of the things that we oversighted when we were thinking about BL and the online teaching part (Ethan).

It would be nice if you could have a screen that suddenly split into 20 parts and quickly move from one screen to the next so I can see what everyone is doing...also in terms of system quality...to actually be able to access the breakout rooms more readily and quickly (David).

The difficulties of incorporating group discussions within the online environment was discussed and a different platform which could support group activities was perceived as necessary for specific course subjects which require group discussions.

### **6.5.5 Training**

Training was another enhancement discussed by several participants. The key aspects below are developing their skills and student preparation.

Primarily, the participants described training in terms of *developing their skills*. The necessity of HEIs offering different types of continuous professional development programs was stressed amongst the participants to help with different aspects of teaching and creating digital materials for their BL courses.

There is a lot we can learn...lectures which should not be boring. It should be straight to the point...which should encourage discussion which should spark further questions so the students can discuss later. So, for sure more training in this aspect might be helpful (Christina).

We are soon getting into a program where we are going to be learning how to digitize one of our coursework...Digitizing your entire coursework. You know creating videos. That's a very, very professional way you have to go about doing it now (Albert).

Thus, the participants believed that it was necessary for them to receive adequate training and continuous professional development opportunities which aim to develop their skills in order to successfully teach their BL courses in the future.

Another aspect of training related to *student preparation*. The participants expressed the need for students to be provided with training in terms of how to use the LMS or different types of software as well as various learning skills.

We also need to train our students how to use different types of software...there's not necessarily the knowledge by students of what they are or how to use them...we need to provide specific training to students on how to be online learners because they don't have that...so our expectations of an online learner is not always met by students, not because they don't want to meet them, but they don't necessarily know what it means to be (Grace).

Similar accounts advocated the need for HEIs to offer students with development opportunities to learn self-regulatory skills which can enable them to become effective online learners rather than expect them to know how when enrolling in BL courses.

### **6.5.6 Online Student Assessment**

Various participants discussed certain enhancements needed to negate the challenge related to difficulties conducting online student assessments, which was previously presented in section 6.4.7. The key aspects below are proctoring assistance, abandoning virtual assessments, and improving invigilation software.

Principally, the participants discussed online assessments in terms of *proctoring assistance*. The need to be provided with assistance while invigilating online assessments, was expressed, and was viewed as necessary due to the lack of control over the online environment.

I teach one class of about 25 to 30, and then I teach another class about 100 to 150. To manage the 100 plus person class, you need people...like teaching assistants to basically be able to help you run smaller sections and that's online or F2F...that would be the biggest improvement (Jerry).

Due to the lack of assistance provided by senior management, the participants found themselves “*asking other colleagues to come and help while monitoring*” (Lillian). This

situation was frustrating, as it was believed that not enough support was provided by their organization in this matter.

An additional manner in which the participants discussed online assessments was in terms of *abandoning virtual exams*. A number of participants had believed that most, if not all, assessments should no longer be conducted online.

All the assessments have to be done on campus, not just the finals. Definitely, no more online assessments. Even though students still come with their laptops and connect to the system and take the exam on Blackboard, it is still easier to truly watch for any cheating during the exams (Giovanni).

All assessments should be on campus, or at least all the major ones... even though students still come with their laptops and connect to the system and take the exam on Blackboard, it is still easier to truly watch for any cheating during the exams (Christina).

Yet, it was asserted that if online assessments were to be still provided in the future then the students would need to “*adhere to very strict policies and procedures and regulations put by the university*” (Lara) to try to further control the environment and prevent cheating as much as possible.

Furthermore, another aspect of online assessments related to *improving invigilation software*. It was believed that other software, which could better aid with invigilation, should be acquired by their HEIs. It was also suggested that senior management could look at how other HEIs were tackling the challenges related to online assessments “*to find better ways to control the environment*” (Christina) and negate challenges related to cheating. Hence, this enhancement is seen as detrimental if HEIs choose to continue offering online assessments.

## 6.6 Chapter Summary

This qualitative analysis chapter presented the data analysis process and the experiences and varying opinions of 21 instructors who took part in the follow-up interviews. As previously discussed in section 6.1, this study followed a thematic analysis process, and thus, the data was split and presented within varying themes and sub-themes.

Concerning the instructors' experiences, four themes were discovered: general attitudes and opinions, benefits of adopting BL, challenges faced, and enhancements needed. The analysis demonstrated that a majority of the participants had mixed feelings and impressions regarding their BL courses as many of the instructors understood the benefits which BL could offer them and their students, however their negative experiences and the numerous challenges faced, most often related to the course type and blend type, left them somewhat dissatisfied. Research has suggested that instructors may demonstrate negative attitudes as a result of adopting the wrong blend type (Osguthorpe & Graham, 2003) and current negative experiences (Minhas et al., 2021). While, instructors may also demonstrate positive attitudes towards BL as a result of the reaped advantages (McPhail & McDonald, 2004). Thus, the overall mixed impressions, of most of the participants, is quite understandable and compatible with such research.

Additionally, there was an almost equal divide among the participants, where many believed that the adoption of BL courses enhanced and enriched their teaching experiences. While others felt that this adoption either made their teaching experiences worse, due to the stress and immense increase in workload, or others had unaffected teaching experiences. Understanding how the adoption of BL impacts instructors' teaching experiences is necessary as insufficient research has focused on such (McLean, 2006) and fails to portray instructors' emotions (De Lera Fernández & Almirall, 2009; Wang, 2014). Also, most of the participants had proclaimed that the adoption of BL improved their job performances. Job performance is another contributing component to understanding instructors' opinions and general attitudes towards BL (Kulowkowski et al., 2021), however, the relationship between BL implementation on instructors' job performances has not been sufficiently studied. Thus,

focusing on such may add to this limited research and help further understand instructors' overall mixed attitudes towards BL.

Regarding the benefits of BL courses, the advantages identified were flexibility, enhanced course quality, and improved job-related skills. These three benefits are mostly consistent with research published throughout the years. However, as there is an emphasis on studying BL in relation to students (Aramellini et al., 2021; Kavitha, 2018; Lomer & Palmer, 2021), there is a lack of sufficient research which reports the advantages of BL from an instructors' point of view, which portrays their feelings and reactions (Wang, 2014) and BL's impact on actual teaching (Stevensen et al., 2022).

Regarding the challenges of BL courses, the most common disadvantages discussed among the participants include students not using the video function, lack of student engagement, lack of student self-regulatory skills, lack of student feedback, increase in academic workload, challenges with time management, online assessment difficulties, and lack of IT support. Many of the challenges identified by the participants, were in fact presented in published research throughout the years and presented in Chapter 3 of this research study, as common benefits of BL. Examples of such include an increase in the level of student motivation (Lim & Kim, 2003); increase in student engagement (Davis & Fill, 2007; Dehler & Parras-Hernandez, 1998; Kose, 2010; Ruberg et al., 1996; Warschauer, 1997); students more easily grasping the course material (Chen & Jones, 2007); and achievement of higher student overall grades (Donnelly, 2010; Woltering et al., 2009). Thus, this distinction is an important identification as a result of the interviews conducted and portrays how more culture-based research which focuses on the adoption of BL from instructors' perspectives is necessary, as culture can play an important role in instructors' varying experiences.

Regarding the enhancements of BL courses, six improvements were identified which include : (1) increase in course quality by re-creating digital course material and adding more engaging visuals to improve students' interest and engagement, (2) the reduction of the online class sizes to enhance the learning environment, (3) re-structuring the course by

changing the blend type, (4) enhancing the technology used to supplement their BL courses, (5) improving organizational support in terms of training and continuous professional development, and (6) changing and developing online student assessments. The identification of such enhancements is useful in further understanding the participants' BL continuity decisions, which will be discussed in the subsequent chapter, as certain enhancements were conditions of the instructors' CIU BL decisions.



## Chapter 7: Qualitative Analysis: CIU Decisions & Continuity Critical Factors

This chapter, which presents the second part of the qualitative analysis, showcases the participants' intentions to continue to teach their BL courses and use the associated LMS as well as the critical factors which impact their continuity decisions. As previously mentioned, the participants' demographic information are presented in section 4.4. Moreover, the below figure, Figure 7.1, demonstrates the portion of the thematic map related to Continuity of BL and Continuity Critical Factors, which will be presented in this chapter.

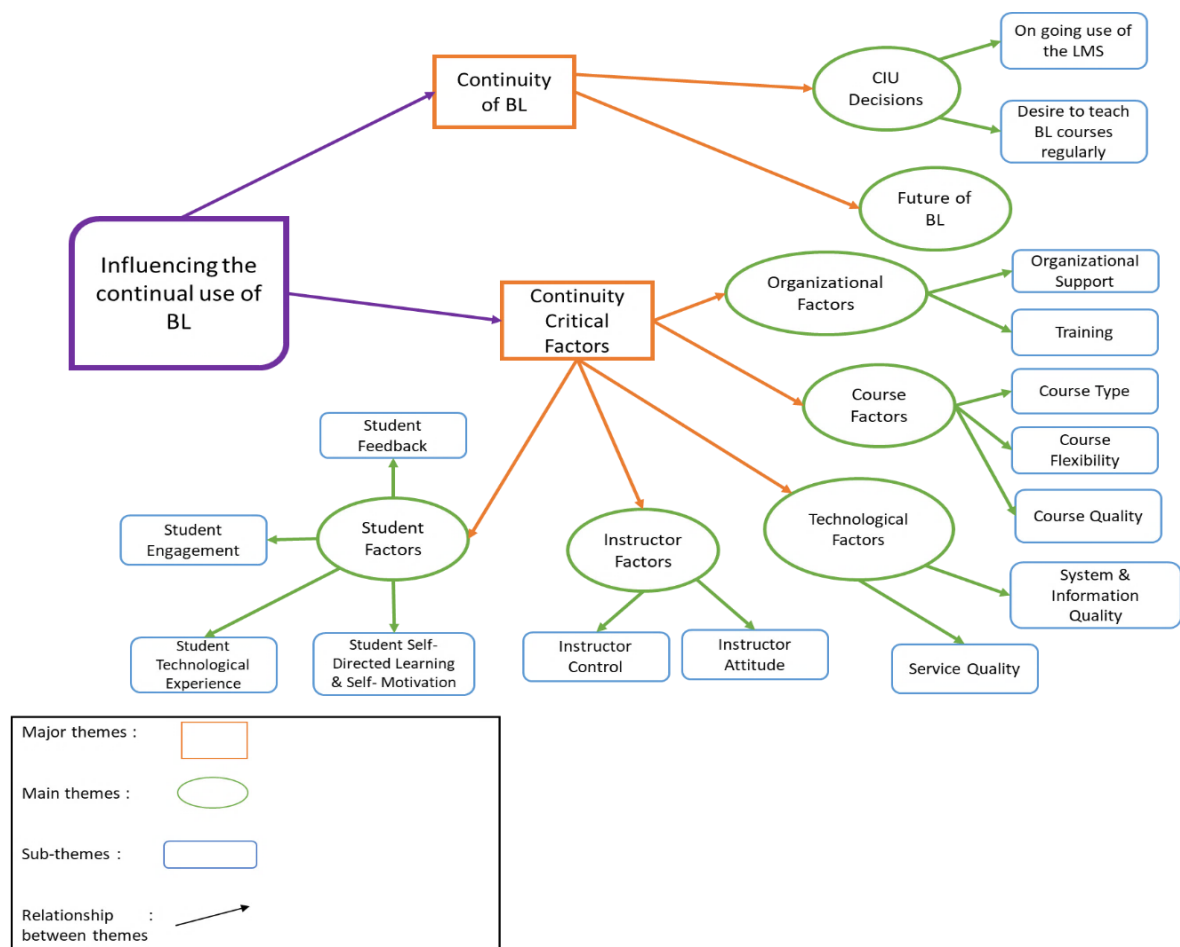


Figure 7.1 Thematic Map: Continuity of BL & Continuity Critical Factors

## 7.1 Continuity of BL

This section showcases instructors' views in terms of continuity of BL. In doing so, their CIU BL decisions will be presented and their perceptions regarding the future of BL in their respective HEIs will be portrayed. The figure below, Figure 7.2, presents the thematic map related to this section and the respective aspects which will be presented.

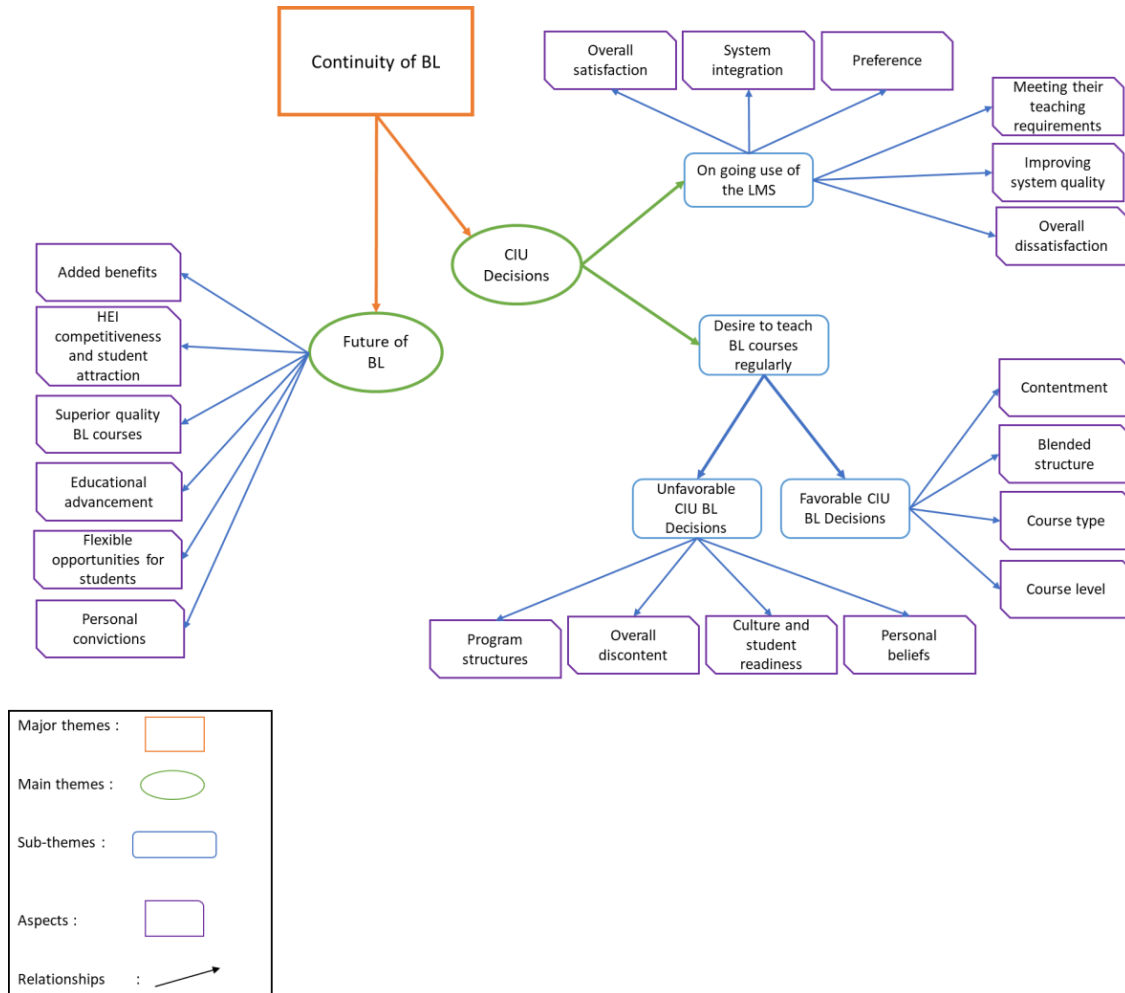


Figure 7.2 Thematic Map: Continuity of BL & corresponding aspects

### 7.1.1 CIU Decisions

This sub-section describes the participants' decisions to continue to use BL approaches by exploring the on-going use of the LMS and desire to teach BL courses regularly.

### 7.1.1.1 On-going use of the LMS

This sub-section presents the participants intentions to continue to use the LMS to supplement their BL courses in the future. The key aspects below are overall satisfaction, system integration, preference, meeting their teaching requirements, improving system quality, and overall dissatisfaction. As previously mentioned in section 2.4, there are varying types of LMS used among HEIs in the UAE, however, the most commonly adopted are Moodle and Blackboard.

Primarily, the participants discussed their on-going use of the LMS decisions in terms of their *overall satisfaction*. The participants positive experiences and satisfaction with the quality of the LMS currently being used had guided their favorable on-going decisions.

It's very practical, and also the students like it a lot...in some cases it's easier for me to share any course material, summaries of chapters, PowerPoint presentations with them through Moodle...I used to take attendance on Moodle, and they will see their attendance sheets updated. So, it is interactive...I think it's very efficient (Lara).

It is a great platform from which to build external links from. It's all in one place. It's very neat. And also, if you want to address other things, we have external links. But it's all embedded in one central area (Grace).

You need a well-rounded system...a system where there is a lot of dynamics, not only from a learning perspective. There is a lot of dynamics when it comes to evaluation, and assessment is also concerned, and I think Microsoft Dynamics offers that (Albert).

Correspondingly, Lillian expressed her favorable decision as she believed the LMS being used “*is almost complete...it has everything that we need to help with teaching online also*”. Similar accounts expressed that their decisions was due to their acknowledgement of it being of good quality, efficient, user-friendly, and interactive. Thus, their overall satisfaction had driven their favorable intentions to continue to use the LMS to supplement their BL courses in the future.

Another manner in which the participants expressed their on-going use of the LMS decisions was in terms of *system integration*. The LMS which were being used had combined different systems and software to fit their needs. Thus, the participants had communicated their favorable decisions which were a result of their happiness with the customized LMS which their HEIs had implemented.

The university has a system...it's now blended...a mix of systems and different software that we use, and we use our own system that was produced by our IT team...and we are very happy with this...we combined everything, and I think that right now we have an amazing modus operandi, so I don't want to change anything (Kevin).

The LMS I'm using now is Blackboard, but I use it with support from Pearson...When I teach economics, we have what we call The Pearson my ECON Lab, which is like the students' study support...It makes it really a total learning environment, so it's more than sufficient (Ryan).

Thus, their satisfaction with the quality of the system, especially in terms of its integration possibilities, had constructed their favorable continuity decisions.

Additionally, an alternative aspect of the participants' on-going use of the LMS decisions was related to their own *preference*. Some had expressed their favorable decisions yet had elucidated that their decisions were not based on the LMS's quality but rather their own personal convenience.

I would stay with this one simply because I know it well now...I've kind of learned with this and switching now would just be a matter of learning a new system all over again. None of them is perfect. They all have their drawbacks (Jerry).

Similarly, Mohamed expressed how Blackboard "*isn't perfect but compared to what was the old one, Moodle...this is the best one with the least glitches*". His continuity decision was thus, largely based on the belief of the LMS's ease of use compared to others.

Moreover, an additional aspect of the participants' on-going use of the LMS decisions related to the system *meeting their teaching requirements*. They had expressed their overall favorable decisions as a result of the LMS's ability to fulfil their needs; however, there was a general sense of indifference when discussing whether they would like to continue to use the LMS in the future.

We're using Blackboard Collaborate Ultra for the classes. I think in general it's OK...of course, sometimes we need to use some other software...But in a large scale...Blackboard is fine...it can handle the requests (Giovanni).

Similar accounts expressed how the LMS they were using was sufficient enough to meet their needs, however, the participants also indicated their openness towards the idea of using any other LMS which could better aid with teaching their BL courses, if the opportunity was provided.

Furthermore, another aspect of the participants' on-going use of the LMS decisions was related to *improving system quality*. Certain participants had conveyed their favorable decisions yet were adamant that the LMS being used would need to be further improved in terms of upgrading its quality to better aid with teaching in the online learning environment.

I would upgrade the video conferencing; we use MS teams...Are you familiar something called Adobe Connect? I find that to be better because I used it when I was a consultant. I find that to be a lot more useful because it has more engagement tools like polls and other things that we just don't have in MS teams (Fernando).

Likewise, Wilson explained that the tools which are currently being used "*were sufficient for the communication... but from a technical point of view, we have some issues in quality with live streaming*". Thus, enhancing communication with students, from a technical point of view, was seen as essential to improve their levels of satisfaction with using the LMS. Even though certain improvements were proposed, there was an understanding that the dissatisfaction with certain features would not convince them to use another LMS than what was currently provided and which they had grown accustomed to.

Lastly, a number of participants discussed their on-going use of the LMS decisions in terms of their *overall dissatisfaction*. Their dissatisfaction, which was related to the systems' lack of performance, functionality, and interactivity, had constructed their unfavorable decisions. As a result, the participants had suggested that adopting a different one could better aid with teaching their BL courses in the future.

It only works really well as a screen sharing thing...where you can share your screen, you could share your materials; once you start putting them in groups, once you start having them talking, coming back to you sharing their information, it doesn't work (David).

When I teach the online classes, I cannot see the students, but some universities...they are using advanced software that for example you have one screen. You can see all the students. You can interact with them. You can ask a student to share her screen at any time, so these features I didn't find in the system that we have...We also need to look for another system that have better video conferencing (Fares).

Thus, the participants' unfavorable decisions were related to their overall dissatisfaction with the quality of the LMS and its inability to meet their specific teaching requirements when teaching their online classes. They commonly felt that using another LMS would be preferable as they were aware that other types used at different HEIs were better equipped to aid with teaching within the online learning environment.

As a result, identifying these participants' unfavorable CIU LMS decisions is important as it can indicate possible difficulties of BL continuity within their respective HEIs. As previously mentioned, their BL courses followed a type of blend which included a large number of online classes and relied heavily on the use of the LMS. Moreover, the majority of the participants' focus on the overall quality of the system and the information provided by the LMS provides a glimpse of how certain critical factors related to the LMS may be perceived as principal in impacting their overall BL continuity decisions.

### **7.1.1.2 Desire to Teach BL Courses Regularly**

This sub-section will portray the participants' decisions to continue to teach their BL courses in the future. This sub-section will be categorized based on favorable and unfavorable decisions.

#### **7.1.1.2.1 Favorable CIU BL Decisions**

Many of the participants had provided favorable responses in relation to continually teaching their BL courses. However, several of them had specified that certain augmentations would need to be made to improve their level of satisfaction and their desire to teach their BL courses in the future. The key aspects below are contentment, blended structure, course type, and course level.

Primarily, the participants described their favorable CIU BL decisions in terms of their overall *contentment*. Their delightedness with their current BL courses had influenced their favorable decisions to continuously use BL as a teaching modality.

Yes, I would because of the technological aspect. That's what I like about this experience. It's a more modern approach and it's what we need moving forward...some days on campus and some days online is definitely a good compromise (Helena).

It would be really more enjoyable, you know, and I've learned from it, so I'd be happy with that and also I like just that balance...you can get the best of both when you mix them correctly...If they said you do two days online and three days in class. I'd be extremely happy (David).

Thus, the participants' favorable decisions were largely due to their positive experiences and the mutual benefits which they and their students had experienced. Their beliefs that using BL could be more advantageous than the traditional learning method also accounted towards their continual desire to teach BL courses in the future.

Another manner in which the participants discussed their favorable CIU BL decisions was in terms of the courses' *blended structure*. The blended structure relates to the blend type which their courses followed as well as the structure of their course. Similar enhancements were previously outlined in section 6.5.3, however, were re-iterated by the participants specifically regarding their CIU BL decisions.

If you're just doing half and half, then I don't see how that benefits. But if I'm doing 20% live where we can engage with the students and 80% remote which will cover a lot of the theoretical part...then you get the best of both worlds (Ryan).

It needs to be split better than the way it is now. So, for some specific topics it would be nice to do it online, but when you are doing practical things and you need to explain, and you need to solve and give proofs, it's much better to be more on campus (Lillian).

I think if more sessions of my class were F2F with only a couple of sessions being online, it would be very good...this will give the professors and the students as well a kind of break from the usual routine...because having most of the classes online definitely takes away from the quality of the course (Lara).

There were varying perspectives regarding what type of blend their courses should follow, depending on their course subjects, personal preferences, and their students' needs. Thus, their favorable CIU BL decisions were contingent on improvements being made in terms of blend type and overall course structure.

Moreover, an additional aspect of the participants' favorable CIU BL decisions was related to *course type*. The type of course, whether theoretical or practical, which was being taught using BL was in fact a contingency of the participants' decisions.

For a theory course. If I have advanced software and number of students reduced, yeah, I would love to teach this course using blended model. But for a practical course...No...I am using Linux operating system. There is no way that a student can



get some skills remotely. The only way to get these skills is physically from the teacher (Fares).

Comparable accounts were adamant that the use of BL would only be beneficial for theory type courses rather than practical ones. This was discussed amongst participants who taught STEM courses as they had faced challenges with students being unable to effectively learn the course concepts as a result of insufficient classes and labs on campus.

Lastly, an alternative aspect of the participants' favorable CIU BL decisions was related to *course level*. Their decisions were contingent on the condition of course year as there was a preference towards teaching only senior level BL courses.

If we're talking about senior courses then yes, it would work. It will actually be better for the students...but not for early stages, year 1 and 2...it has to do with student engagement and because if you go to early courses...it wouldn't work because you need to force the students to attend (Fernando).

Similar accounts had also emphasized the same condition for teaching only senior level courses using BL due to the greatest challenges which the participants had faced related to students' lack of self-directed learning, self-motivation, and levels of engagement. For example, Giovanni acknowledged his preference for such and clarified that "*it will probably even be more beneficial than the traditional way because students by default have the recordings and can study well independently*". Thus, they believed the only way to have a successful BL course would be to provide it to older students who would be able to learn independently, be self-motivated to attend the online classes, and take an active role in class participation and discussion. Hence, their continuity decisions were based on their students' abilities to excel in a BL environment which would result in a successful BL course.

#### **7.1.1.2.2 Unfavorable CIU BL Decisions**

Most of the participants disagreed with the idea of continuously teaching their current BL courses. The key aspects below are program structures, overall discontent, culture and student readiness, and personal beliefs.

Primarily, the participants discussed their unfavorable BL continuity decisions in terms of *program structures*. They had expressed their dissatisfaction with their BL courses, yet discussed their preference for having BL programs instead. The participants' decisions were largely based on their accumulative experiences with teaching BL courses in various HEIs in the UAE.

I think having many blended courses have issues because practically you deprive yourself of the advantages of teaching in a debug mode...what I want...a program that is blended with courses that are designed to be remote and courses that are designed to be fully on campus...I think this would be the best instead of a blended course (Kevin).

A BL program which combines various courses which are either fully online or fully F2F was seen as a more advantageous prospect and a more successful option for their students. Thus, their unfavorable decisions correspond to their beliefs that their current BL courses are less advantageous than their traditional F2F ones.

Another manner in which the participants expressed their unfavorable BL continuity decisions was in terms of their *overall discontent*. Their discontent was related to their negative experiences, overall dissatisfaction, and the numerous challenges faced while teaching their current BL courses.

The types of courses that I teach...they need statistics, and you know more math skills and teaching this to students who have limited, you know, I can say skills with this BL. It can be so exhausting...The student's skills also are important; I feel they need more help, and I can provide this help more with F2F all the time (Mina).

You know the culture...Sometimes students are really mindful only to their final marks. Sometimes they don't study...they don't want to learn...The students need interaction especially in the medical field...I think we would rather have F2F...we need to meet our students much more so that we can actually give guidance properly (Aiden).

Comparable accounts also expressed that their unfavorable decisions were due to the nature of the courses which they teach as well as the nature of students who study at their HEIs. They had stressed that their students could only learn in a traditional F2F setting and that any type of blended structure would still lead to an unsuccessful outcome. The participants' perceptions that BL success could never be accomplished can clarify their unfavorable continuity decisions.

Moreover, an additional aspect of the participants' unfavorable BL continuity decisions related to *culture and student readiness*.

We have to understand that culture plays a really massive part in education...I don't think it's beneficial here...half of your classes there's no physical person. I think that it's very hard for them to deal with...In another country where maybe, students are more exposed to BL from a younger age, so you know there are courses in like the States or in Australia where they have BL from grade 10...I think culture and just these students on learning experiences is something we must take into account (Grace).

The topic relating to the culture, the nature of students, and their needs depending on year type was one which was widely discussed during many instances throughout the interviews. Many of the participants' decisions were thus based on whether their students were able to excel in a BL environment and that their unfavorable decisions were based on such.

Lastly, an alternative aspect of the participants' unfavorable BL continuity decisions was related to their own *personal beliefs*. They had indicated that their decisions were a result of their personal convictions, irrelevant of their current experiences teaching their BL courses.

It's something you have been used to for many years and it is my conviction, that F2F will always be better because language is communication...I feel real teaching should always be F2F (Shannon).

Teaching is mainly a F2F exercise. Using digital tools might improve the experience, however, nothing replaces the direct physical contact between professors and students. That's my main take on it after all these sessions (Wilson).

There was also a general perspective that a teacher-student relationship could only be built through F2F courses which is essential when teaching as a profession. There was an evident attitude towards their dislike of using BL as a teaching methodology due to their disbelief that BL could ever replace F2F teaching.

The participants' unfavorable CIU BL decisions can indicate possible difficulties with future BL continuity within their respective HEIs, as their BL continuity decisions are influenced by their own attitudes, experiences, and level of satisfaction with their current BL courses, which in turn can influence the successfulness of the BL course and students' experiences and performance.

### **7.1.1.3 Summary**

In conclusion, most of the participants provided favorable decisions in terms of continuously using their current LMS in order to support their BL courses. Their favorable decisions were mostly a result of the LMS's good quality, functionality, interactivity, and efficiency. On the other hand, most of the participants expressed their unfavorable decisions regarding continually teaching their BL courses. This was due to several varying reasons regarding the nature of students who are enrolled in their courses, the course type and subject matter, the course year, the type of blend adopted, and their own personal convictions. Therefore, comprehending the participants' different CIU BL decisions and the reasonings behind them is an important original contribution of this research study. Also, by comprehending these varying reasons, it can shed light on certain perceived principal continuity critical factors, which may influence their CIU BL decisions, which will be later discussed in section 7.2.

Furthermore, as numerous BL courses were implemented throughout all the departments within their HEIs, discussions surrounding the future of BL in the UAE was considered, which will be presented in the following section.

### 7.1.2 Future of BL

This section will portray the participants' opinions surrounding the future of BL within higher education in the UAE. The key aspects below are added benefits, HEI competitiveness and student attraction, superior quality BL courses, educational advancement, flexible opportunities for students, and personal convictions.

Primarily, the participants had discussed the future of BL in terms of the *added benefits*. They had shared a common opinion that their HEIs should continue providing BL courses and further adopt BL programs in the future particularly as a result of the advantages which they had reaped from teaching BL.

I think it's quite an exciting prospect... You get lazy just teaching in a class. I think it kicked a few people. You know it got them out of their kind of rut of teaching...but it depends on if the university thinks it can attract students (David).

The adoption of more BL courses was seen as a beneficial option for a number of participants due to its ability to inspire them to develop varying digital course materials and learn new skills such as teaching proficiently online and improving their IT skills with using the accompanying LMS and other software.

Another manner in which the participants expressed the future of BL was in terms of *HEI competitiveness and student attraction*. There was a general belief that the adoption of future BL programs in the UAE was essential to compete on a global scale.

It's dangerous not to for all types of degrees, because if all other institutions around the world are doing that, and if you don't offer that, it means the students inside your country will go there and then the pool of students you have will be very limited (Christina).

Discussions at several HEIs surrounding the conversion of postgraduate programs to BL ones were already being held and were seen as a welcoming prospect. For example, Majed stressed how the adoption of MBA and EMBA BL programs at his HEI would be quite advantageous as “*it can help attract more students and it is more convenient for faculty who teach master*

*level classes*". As well, the adoption of additional undergraduate BL courses was also encouraged, however, providing theory-based BL courses was believed to be a more convenient possibility, as they do not rely on hands on teaching.

A further common view was one related to providing future BL courses strictly to older year undergraduate students. This was previously outlined in section 7.1.1.2, as this was a particular condition related to their own CIU BL decisions.

For older students, so those may be in year 3 or 4. They will be more mature. They've also had two years of full F2F...Also, if they have some blended programs where international students can come a few months of the year and the rest is online... You could also have some collaborative teaching with the online portion, professors teaching from Singapore, States, Australia...so we had very different educational experiences (Grace).

Grace's suggestion further reiterates the participants' discussions surrounding the importance of attracting students, especially internationally, as the UAE is seen as an educational hub in the Arab Region.

Additionally, an alternative aspect of the future of BL related to providing *superior quality BL courses*. Several participants asserted the need of re-designing the current BL courses for the future. For example, Catherine discussed her own previous experiences with teaching BL courses in Australia and saw first-hand how successful the adoption of BL was. She expressed her own belief of how HEIs in the UAE can achieve the same success "*provided that if enough research is done on how to re-design the curriculum and redesign course materials properly to ensure that students are receiving equivalent teaching quality*". As well, it was indicated that the changes in blend type and course structure is essential for the future in order to ensure that students can reap the benefits of BL and are provided with a better learning experience as a result of the implementation of high quality BL courses.

Moreover, another aspect of the future of BL was related to *educational advancement*. The adoption of BL in HEIs is believed to be a natural step forward as it is seen as the future of education in the UAE.

The university should, no questions asked...I think no one can deny the fact that blended mode of learning is a major way forward and that is something which higher education will need to take into consideration (Albert).

Similarly, Mohamed stressed the need to continue providing BL courses, especially that his HEI is the only smart university in the UAE, and expressed how

our chancellor has more dreams of how far this smart education can really go...So definitely we have to stay, and we have to continue what we're doing...it is definitely the future whether we like it or not.

As previously mentioned in Chapter 2, the inauguration of HBMEU in 2002 was one of the UAE's first measures in implementing technology within the educational system, and since then the UAE has set its sights on achieving the next 50 year plan of redefining the realm of education, with implementation of technology at all levels within the education sector, and aiming to become the digital knowledge hub of the MENA region. Therefore, there was a general perspective that all courses will soon follow a BL approach, as a result of existing plans within various HEIs concerning the future adoption of BL as a teaching modality across various colleges and within varying undergraduate and postgraduate programs.

Furthermore, an additional aspect of the future of BL related to providing *flexible opportunities for students*. They believed that the further adoption of BL would be essential to cater to students' convenience. Mina elaborated on such and described how providing additional BL options in the future would be extremely beneficial for “*married woman with young kids...other [students] with determination or who are outside the country, or maybe who need to go somewhere for emergency purposes*”. Lillian echoed a similar point of view and explained how it was based on her own personal experience while studying for her doctoral degree; where she had encountered personal issues, which could have helped solve if flexible BL options were offered. Therefore, there was a general perspective that the adoption of further BL courses would be extremely beneficial for many postgraduate and working students who either attend classes in the evening or commute daily from different cities.

Alternatively, it was perceived that adopting BL programs and not BL courses would be better suited for HEIs in the UAE and would be a better solution for many working students due to the flexibility of having courses fully online.

If we have blended program options which have a number of online courses then perhaps corporate executives that may want to pursue a masters' degree don't have to quit their jobs to do this...which not only will improve the quality of people in the UAE as far as adding to the talent pool but also adding to the function of your company (Ryan).

I think that offering blended programs as an option will also allow us to have international students who don't actually have to move here full time...that allows us to expand our student base a lot more....it allows us to collaborate with other universities to say we'll do this part of the course online, and you know, and that kind of thing allows a lot more collaboration (Fernando).

There was an indication of how implementing a block teaching approach for future BL programs would be the best way forward for their institutions, as it can be beneficial for both the instructors as well as the students. Some HEIs already introduce block teaching within certain postgraduate programs, however, these participants suspect that the implementation of block teaching for undergraduate students, for certain types of programs, can also help in attracting international students as they would no longer need to move to the UAE full time.

Lastly, the participants further expressed their opinions on the future of BL in terms of their own *personal convictions*. Two participants had disapproved with the idea of implementing more BL courses in the future. Aiden discussed how this was due to the fact that his HEI primarily provides medical degrees and that the “*traditional teaching would always be the most practicable way to deliver the materials that we have*”. While, Wilson discussed how he believed that the implementation of BL courses within his institution was done merely for monetary purposes in relation to student enrollment.



The increase in student enrollment will mean an increase in workload for us professors. So, I know they will continue creating these new blended programs for the institutions own benefit, but I just don't think it is right to do, professors are already overwhelmed (Wilson).

However, as a result of the discussions had with such participants, their negative attitudes towards their current BL courses seemed to be an underlying reason as to why they personally felt that the adoption of future BL programs in the UAE would be challenging. Thus, this reiterates how instructors' attitudes may in fact impact future BL continuity decisions and showcases the importance of providing an in-depth understanding of their varying opinions, emotions, and general attitudes towards their current BL courses. Nonetheless, the majority of the participants optimism towards the possibility of implementing future BL courses may shed light on future prospects of BL continuity within their HEIs in the UAE.

It is important to note that three participants had concerns regarding accreditation and legitimacy if HEIs decided to implement more BL courses or programs in the future. They expressed the importance of understanding whether the adoption of BL programs would be fully accredited by the Ministry of Education, especially that accreditation and conversion of degrees is a trivial matter in the UAE and can be a deciding factor among students who plan to continue their studies abroad. Particularly, Fares & Wilson further questioned the legitimacy of gaining a degree which follows a BL approach, as prior to the Covid-19 pandemic, many DL degrees were not given accreditation by the Ministry. On the other hand, Ryan expressed how many have the false impression that DL degrees are not of good quality and asserted that offering “*a different modality of delivery does not make it less equitable or any less beneficial*”. Ryan also stressed the need for the Ministry to accredit all BL programs in the future and provided examples of several top-notch HEIs in the world who provide exceptional quality BL programs. Thus, the discussion in this matter does warrant a serious look from the Ministry of Education to provide peace of mind to both instructors and students, as it can influence the future of BL in HEIs in the UAE.

### **7.1.3 Summary**

This section presented the participants' decisions regarding their intentions to continually teach BL courses and use the associated LMS. There was a general favorability towards continually using the provided LMS due to its overall quality and its ability to meet current teaching needs. As well, the participants' favorable decisions stemmed from their convenience of having knowledge using the current LMS as opposed to others which may not be of better quality.

On the other hand, the decisions related to continually teaching BL courses were mixed, with the majority indicating their unfavourability due to varying reasons such as course type, course year, blend type, nature of students, and their own unwillingness. More so, some of the reasonings behind the participants' decisions offer a glance into which critical factors are perceived to impact their continuity decisions, which will be discussed in the following section.

Furthermore, irrelevant of the participants' continuity decisions, there was a common opinion that HEIs in the UAE should adopt additional BL courses and programs for the future in order to be able to compete on a global scale, attract more international students, and improve HEIs reputations and rankings.

## **7.2 Continuity Critical Factors**

This section discusses the critical factors which the participants identified to influence their BL continuity decisions. The sub-sections will present the critical factors in terms of technological factors, organizational factors, student factors, instructor factors, and course factors. The figure below, Figure 7.3, presents the thematic map related to this section and the respective aspects which will be presented.

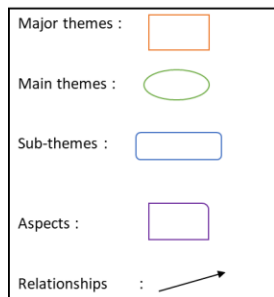
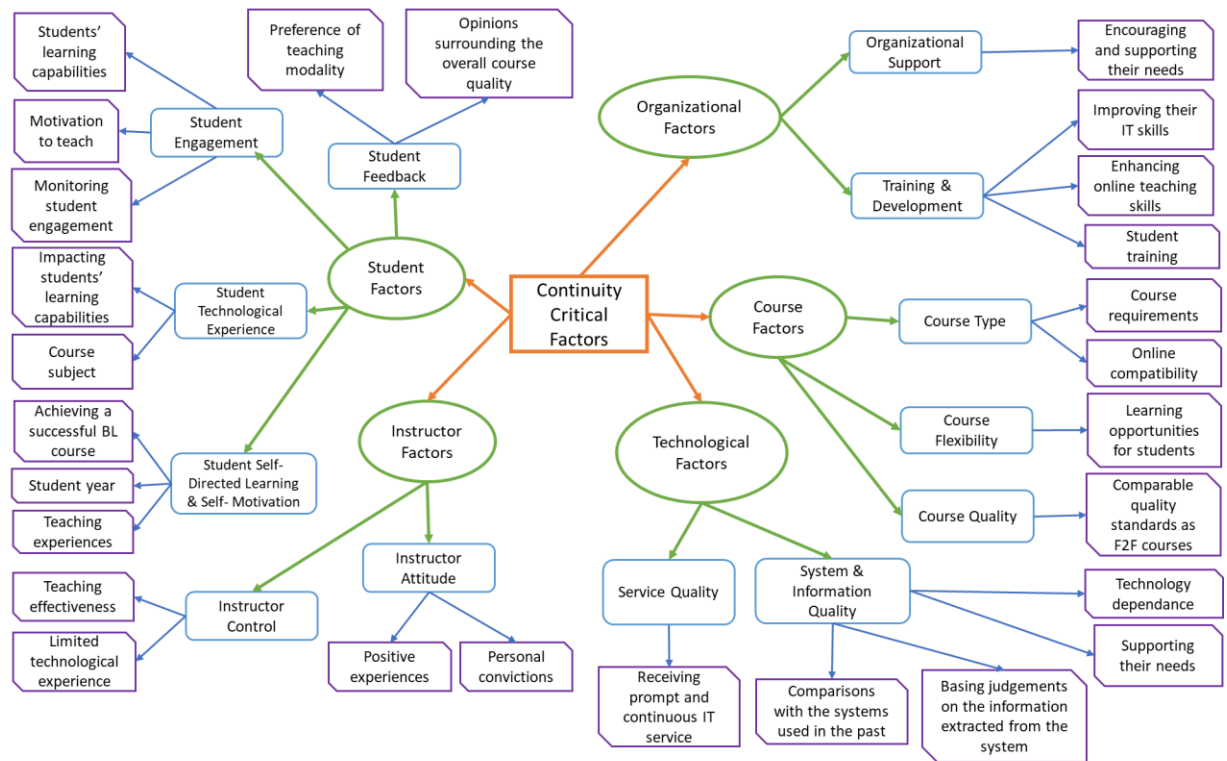


Figure 7.3 Thematic Map: Continuity Critical Factors & corresponding aspects

## 7.2.1 Technological Factors

This sub-section will present the identified continuity critical factors under the technological dimension. The factors include: System Quality, Information Quality, and Service Quality.

### 7.2.1.1 System Quality & Information Quality

Many participants expressed that fundamentally influential critical factors which impact their BL continuity decisions are System Quality and Information Quality. The key

aspects below are technology dependence, comparisons with the systems used in the past, basing judgements on the information extracted from the system, and supporting their needs.

Primarily, the participants conversed about System Quality and Information Quality in terms of *technology dependence*. They indicated the significance of these factors particularly in driving their decisions as they ultimately felt that their BL courses are “*system driven*” (Albert) & “*technology based*” (Lara).

Everything will go through the same system ...students open the zoom meeting through Blackboard. I upload the course materials, they submit assignments, there is discussion boards, all these things and this makes things much easier for me as an instructor to have everything in one place as a complete package. So, the overall system and information quality is very important to my decision (Mina).

You also need the proper software and systems in place. You need to make sure you're up to date with the software. So, the quality of the system itself is very important. Also, in terms of the recordings in terms of video in terms of like interactive software, the system needs to support all of that (Christina).

Correspondingly, there was a general perspective that a good quality system is essential to their continuity decisions as the use of the LMS is expected to “*make things more convenient*” (Jerry) as well as simplify the teaching process. If not, then they would be less inclined to continue to use the LMS to teach their BL courses.

Another manner in which the participants discussed these technological factors was in terms of their *comparisons with the systems used in the past*. Their previous experiences using different LMSs within varying HEIs had cultivated their beliefs of System Quality impacting their CIU decisions.

If we had stayed with what we used first, that would not have been so great. Our system now is much better...the LMS is very important, its quality and also what it can do for my course, like what kind of information it can also produce (Fernando).

Similar accounts had expressed their inclination towards continually using the associated LMS due to the current systems' superior quality compared to what they had used in the past.

Moreover, an additional aspect of these technological factors related to the participants' *basing judgements on the information extracted from the system*. The participants believed that the ability of the LMS to "*produce reliable information*" (Mohamed) was just as important in terms of aiding to support their BL courses.

Sometimes you can have a system with many features and sometimes there could be information overload...It's good to have where you have a system that's flexible enough to be able to use what you need or adjust what you don't (Ryan).

I need a good quality system and supporting software to use, but the quality of information that is produced from the system is just as important because we are using it constantly to support our classes (Catherine).

Hence, the type of information which could be extracted from the system was viewed as equally essential as the quality of the system itself.

Lastly, an alternative aspect of these technological factors related to *supporting their needs*. Certain participants expressed their view that if the LMS was unable to support their teaching needs then they would become less inclined to teach future BL courses.

I feel the system we are using is not supporting me enough with my needs to teach my courses. And because of this I don't want to teach BL anymore...because the system is not helping me with my online classes (Fares).

Thus, System Quality and Information Quality were detrimental to many of the participants as they had depended on the LMS to constantly support their BL courses, particularly within their current situations which included an extensive amount of online learning.

### **7.2.1.2 Service Quality**

Service Quality was another critical factor discussed amongst a few participants. The key aspect below is receiving prompt and continuous IT service.

The participants had described Service Quality in terms of *receiving prompt and continuous IT service*.

A quick response from the organization and the IT department is also very important for me...to adapt the system and to modify or upgrade the system to meet the remote teaching requirements...the response to adapt to our needs has to be quick, efficient, and effective (Lillian).

Achieving consistent prompt IT service was seen as essential in assisting them achieve sufficient control over their learning environment. As previously mentioned in section 6.4.8, the participants were often met with technological challenges which they did not know how to deal with themselves. This had left a number of them feeling unsatisfied with the use of the LMS and teaching their BL courses. Similar accounts had also asserted that if there was going to be a lack of continuous support from the IT department in the future, then it would most certainly negatively impact their on-going decisions to use the LMS, if given a choice.

## **7.2.2 Organizational Factors**

This sub-section will present the identified continuity critical factors under the organizational dimension. The factors include: Training and Development, and Organizational Support.

### **7.2.2.1 Training & Development**

Training and Development, provided by their HEIs, was one of the deciding critical factors discussed by several participants. The key aspects below are improving their IT skills, enhancing online teaching skills, and student training.

Primarily, the participants had discussed Training and Development in terms of *improving their IT skills*. They had elucidated that in order to be more inclined to continue

to teach BL courses in the future, they would require “*sufficient training provided from IT as well as enough system support*” (Wilson). Likewise, Mina conveyed this point of view and asserted the essentialness of training to her decision as “*it enhances individuals to gain better skills and know how to master these techniques*”. The lack of sufficient IT training provided had resulted in participants’ inability to efficiently use the LMS as well as other associated software such as those used for invigilation purposes.

My decision is also based on insufficient training and lack of support...cause I had to do this thing on my own. I had to learn about Nearpod and all that...I had to do everything on my own by looking at YouTube videos (Catherine).

The lack of on-going training provided made teaching a BL course more frustrating and time consuming as they often felt that they lacked the necessary control over the online learning environment which thus contributed towards their continuity decisions.

Another manner in which the participants described Training and Development was in terms of *enhancing their online teaching skills*. The implementation of further on-going training and continuous professional development programs were seen as essential to help to negate the challenges faced and enhance instructors’ abilities of successfully teaching their BL courses.

You need to have continuous professional development programs to help faculty with many aspects especially online teaching, body language, these types of things...for example, I've been given a very clear-cut instruction how I need to show you my personal background... I cannot have a background with a photograph of me and my wife in London...because that's going to be an inhibiting factor for you, but I can have you know anything that is going to be encouraging to you as a learner (Albert).

Learning how to digitize your entire coursework. You know creating videos. That's a very, very professional way you have to go about doing it now. Those are trainings which the university has to provide to help create better course material and engage my students (Lillian)

Therefore, the implementation of various continuous professional development programs was perceived to be able to help instructors acquire new teaching skills for the online environment, learn different ways to engage students during the online classes, and learn how to professionally create digital recordings to encourage self-directed learning among students as well as encourage participation and discussions.

Lastly, an additional aspect of Training and Development related to *student training*. A few participants believed that students should be provided with sufficient training to ensure that they acquire the necessary IT skills to deal with the tasks required within their BL courses.

I had a test...some students for some reason could not submit their papers and then they had to send it via email...I also had to give make-up tests for other students...you need to make sure that sufficient training is available for them (Shannon).

Similarly, Grace expressed how the inability of students being able to use the LMS or any other accompanying software effectively could impact her continuity decision due to the nature of her course which relies heavily on technology. Thus, if students were unable to use the LMS to perform what was required of them, then learning in a BL environment would become much more difficult and certain participants would feel less inclined to continuously teach such courses in the future.

### **7.2.2.1 Organizational Support**

There was a general perspective concerning how organizational support could play an important role in influencing the participants' BL continuity decisions. The key aspect below is encouraging and supporting their needs.

The participants had described Organizational Support in terms of *encouraging and supporting their needs*. They believed that the support provided by the organization could help them not only use the system provided to support their courses but also motivate them to continuously teach their BL courses.



If I feel the organization is helping me and supporting me then it tends to make things a lot easier and it could help reduce the challenges which I face...you definitely need their support to achieve a successful blended course (Christina).

The role of the organization is very critical to keep the instructors motivated to keep teaching BL courses in the future...You have to make sure that the environment and the culture of the organization is supporting enough (Majed).

Also, the organizations' "*supporting management style*" (Mohamed) as well as "*their ability to provide an environment of continuous learning*" (Aiden) had a large impact on the participants' attitudes as well as their favorable continuity decisions. Hence, if their HEIs constantly support the participants' efforts, then their willingness to continue teaching BL courses would become more favorable.

Furthermore, similar accounts believed that more organizational support was needed to further motivate and support their teaching needs.

The biggest motivator for me is if the institutional support is there to really treat these two different modes equally...but if it's not, if it's like F2F is always going to be prioritized over the online portions and the commitments not going to be there and the scheduling is not going to be there... You know what's the point? It's not worth it (Jerry).

He also stressed that his decision would be based on the organization "*creating appropriate policies and procedures for BL*". Even though the issue related to policies and procedures was only addressed by Jerry, however, it may warrant a further look by HEIs in the UAE.

### **7.2.3 Student Factors**

This sub-section will present the identified continuity critical factors under the student dimension. The factors include: Student Self-Directed Learning and Self-Motivation, Student Engagement, Student Technological Experience, and Student Feedback.

### 7.2.3.1 Student Self-Directed Learning & Self- Motivation

Student self-directed learning and self-motivation were one of the most influential critical factors which had affected almost all participants' BL continuity decisions. The key aspects below are achieving a successful BL course, student year, and teaching experiences.

Primarily, the first aspect of Student Self-Directed Learning and Self- Motivation related to *achieving a successful BL course*. The participants had elucidated that the lack of students' self-regulatory skills which is seen as "*essential for a successful BL environment*" (Catherine) had negatively impacted their continuity decisions.

The students are the most important factor...the student's maturity level, their self-efficacy, and self-directed learning. Their ability to actually do the tasks required of them when asking them to do the online classes...That's the biggest factor obviously 'cause at the end of the day our job is to ensure that students have the best learning experience possible (Grace).

Their self-directed learning, but more importantly their self-motivation...if they're not motivated, they're not going to do well in the class...You can imagine just going through the motions, so to speak...Otherwise, you know the class for them will be just about trying to pass as opposed to learning something (Ryan).

Student's self-motivation is the most important factor. They are not self-motivated at all when doing these online classes. Even though when they are taught F2F, sometimes students are still not self-motivated enough, but it is especially hard when giving some online classes. It becomes much more difficult (Aiden).

As outlined in many instances throughout the interviews, there was a general perspective that a majority of their students were not self-motivated enough to take part in a BL environment and did not know how to direct their own learning process. This was seen as detrimental to many of the participants such as Mohamed who had expressed from his own experience that "*it takes a learner to have those things for a blended course to really be successful*" (Mohamed). Hence, if the participants believed that their BL courses were unsuccessful then

this would demotivate them to continuously teach using this mode of delivery, as the ability for the students to learn and excel in whichever courses were taught was a priority for them.

Additionally, the second aspect of Student Self-Direct Learning and Self-Motivation related to *student year*. There was an emphasis on the younger students as it was often indicated that they “*are just not motivated enough to learn on their own*” (Giovanni). Many participants shared this similar perspective, however had expressed that their decisions were not based on one particular aspect but a combination of student related factors such as their “*capability to learn digitally...their self-efficacy, self-directed learning and motivation...and be as engaged as they would be as if they were sitting [physically] in class*” (Fernando). It was further indicated that there would be an unwillingness to continue to teach their BL courses if their students were unable to learn in the same manner as they would when attending their traditional courses.

Lastly, the third aspect of Student Self-Direct Learning and Self-Motivation related to *teaching experiences*. The lack of students’ self-regulatory skills were believed to affect participants’ experiences with teaching BL which had a direct impact on their continuity decisions. For example, Wilson had asserted that his less favorable decision was largely due to the “*students’ self-efficacy, their lack of self-motivation and their level of engagement*” and further explained that the majority of students were finding learning using the blended format extremely difficult and if that were not the case then perhaps, he would have had a much more enjoyable experience.

### **7.2.3.2 Student Engagement**

Most participants discussed how they perceived student engagement in particular to be a crucially important critical factor which affects their desire to continue to teach their BL courses. The key aspects below are students’ learning capabilities, motivation to teach, and monitoring student engagement.

The participants discussed Student Engagement in terms of *students’ learning capabilities*. Student engagement is viewed as essential to the successfulness of any course however, the participants stressed how it is much more impactful to the online environment.

This is largely due to the fact that having engagement among students allows instructors' the ability of "*assessing how much students are learning and grasping the course material*" (Lillian) and is perceived as essential to the learning process.

I need to feel that students are participating in my class...when they engage and ask questions, we can have discussions and it helps me get across what I am trying to teach (Fares).

Students are here to learn and when they engage and take part, that is part of the learning process...If students don't participate with you and engage, then what's the point? (Helena).

It was repeatedly conveyed how the essence of an instructors' profession is educating students and that if they felt that their students were unable to effectively learn using BL, then they would be less inclined to continue to use this modality of teaching.

Moreover, another aspect of Student Engagement related to their *motivation to teach*. Numerous participants viewed student engagement as an influential critical factor and that the lack of it could be detrimental as it has the ability of negatively impacting instructors' motivation for teaching and that without it, the quality of learning may be compromised

When there is no student engagement and participation, there is no learning. It's a total process. So, if there is no student engagement, then there's no teaching. If there is no teacher's passion and interest, there is no teaching and there is no learning...so if there is student engagement that will be perfect (Aiden).

Thus, they had revealed that they would gladly continue teaching BL courses in the future if the necessary level of engagement was present among their students. This factor was not identified in the literature review, presented in Chapter 2, as a critical factor of BL. This may be a result of the lack of cultural research which studies the critical factors of BL and those influencing instructors' continuity decisions; and thus, its identification is a significant academic contribution.

Alternatively, two participants conversed about Student Engagement in terms of *monitoring student engagement*. They had discussed how they did not face current issues regarding student engagement, however acknowledged how the obvious lack of it would definitely impact their continuity decisions in the future.

If I try everything I can to engage my students and nothing has changed, then it will eventually be a deciding factor for me...to engage your students is crucial in this situation (Jerry).

If I don't feel that the students are engaged or that they are not interested...then this is definitely a major issue and will eventually affect my decision (Lara).

Thus, their accounts had re-iterated the majority of the participants' views regarding student engagement as being an influential critical factor which impacts their BL continuity decisions.

### **7.2.3.3 Student Technological Experience**

Several participants identified students' technological experience as one of the deciding critical factors related to the continuity of their BL courses. The key aspects below are impacting students' learning capabilities and course subject.

The participants had conversed about Student Technological Experience in terms of *impacting students' learning capabilities*. They believed that learning in a BL environment would be extremely challenging for students if they lacked the necessary digital skills.

If they don't understand...they'll have very difficult time with connectivity, and if they're having a difficult time with connectivity then it becomes a very frustrating experience and when it becomes a very frustrating experience then they lose interest in the course itself, because now they're more focused on the connectivity issue than they are with the material of the course itself (Ryan).

Similar accounts had commonly expressed how the lack of students' technological skills could cause further challenges and impact the students' learning capabilities, which in turn would create an unsuccessful BL course.

Additionally, another aspect of Student Technological Experience related to *course subject*. Other participants had viewed this factor as vital to their continuity decisions because of the nature of their courses which depended on the use of technology.

Students technological experience and control of the use of the system is also very important...if they are facing some challenges in working their way around, uh, you know Teams or Moodle or stuff like this, then this is definitely a major issue...I depend on technology use for my courses, so anything related to technology for me is a main factor (Lara).

Similarly, Helena expressed how student technological experience could partly affect her BL decision as “*the students technological background would affect their use and the ability to use the technological tools*” which is necessary when taking several online classes. Students having sufficient digital literacy was viewed as a pre-requisite of BL courses and the lack of it is believed to result in students being unable to effectively learn the course material and complete the tasks required of them. Thus, the lack of student digital experience is perceived to contribute to an unsuccessful BL course which would then discourage the participants from continually using BL as a teaching modality.

#### **7.2.3.4 Student Feedback**

Student feedback was identified amongst a few participants as an essential critical factor when deciding whether or not to continue teaching their BL courses. The key aspects below are opinions surrounding the overall course quality and preference of teaching modality.

The first aspect of Student Feedback, which was discussed by the participants, related to students' *opinions surrounding the overall course quality*.

I personally would say I would go for BL, but I also need to come periodically and check the feedback of my students. We cannot ignore the students from the equation, so they have to be there because after all they are the ones who are perceiving and their opinion matters (Christina).

Likewise, Lillian stressed that student *“feedback is most important for me...to know if the students are able to understand what I’m giving and are able to understand the course.”* Understanding how the students view learning in a BL setting has been deemed necessary to comprehend *“if the students are actually learning or not using these different teaching methods”* (Fares). Student feedback is also seen as essential for instructors to understand if students enjoy the re-created course material and what adjustments can be made to improve the quality of the course.

Meanwhile, the second aspect of Student Feedback related to students’ *preference of teaching modality*. A few participants were less inclined to continue to teach their BL courses due to their students’ feedback in terms of their preference of learning in a traditional F2F setting and their difficulties of grasping the course material, as a result of the inclusion of the online learning environment. This relationship was clearly indicated as their students’ negative feedback resulted in the participants feeling less satisfied with using BL as a teaching methodology and hence, influenced their continuity decisions.

The crucial deciding factor for me is the response of the students, the students’ feedback and I can tell you that most of my students really wanted to come back to campus full time (Kevin).

Therefore, the participants’ attitudes and understanding of the benefits of BL became somewhat irrelevant compared to the feedback received, as they re-iterated how their students’ feedback was more crucial to the continuity of BL than other factors.

#### **7.2.4 Instructor Factors**

This sub-section will present the identified continuity critical factors under the instructor dimension. The factors include: Instructor Control and Instructor Attitude.

### 7.2.4.1 Instructor Control

Instructor control is another identified critical factor which was indicated to ultimately affect most participants' continuity decisions. The key aspects below are teaching effectiveness and limited technological experience.

The participants discussed Instructor Control in terms of *teaching effectiveness*. This factor was perceived to be vital as instructors are required to gain the necessary control over their learning environment by understanding how to effectively use the system in order to ensure a successful BL course.

Instructor control is definitely an important factor otherwise, I don't think I would have been able to deliver the courses if I did not know how to effectively use the LMS to supplement my classes, because a large portion of the classes were online (Lara).

Instructor control is one of the most important factors actually. To better manage...to better utilize the system and how to get the best out of the system to aid in teaching your BL courses (Mohamed).

The participants considered that the large number of online classes meant that instructor control became a pre-requisite to the success of their BL courses. It was suggested that if they do not understand how to effectively use the LMS to complete essential tasks related to their BL course, then they ultimately will not be effective in teaching, as the lack of instructor control could "*become a hindrance to the entire learning environment*" (Ryan). As a result, the participants believed that they would become less motivated to teach online, harbor negative attitudes towards BL, and be less willing to continually teach their BL courses in the future.

Additionally, another aspect of Instructor Control related to *limited technological experience*. Other participants expressed that even though they had not perceived instructor control as vital to their own continuity decisions, but they believed that it would be detrimental for many instructors who are "*less familiar with these tools*" (Helena).



If you're afraid of the technology, you won't explore all the capabilities it has to help teach your online courses. You may just say forget it; I just want to be back in the classroom...so instructor control would definitely be an extremely important factor for many professors I know (Fernando).

Likewise, Shannon provided an example of colleagues who had faced several difficulties and had expressed their unwillingness to continue to teach BL courses in the future due to the lack of control.

Faculty members who teach courses in Arabic found it extremely hard to use the Lockdown Browser and Respondus Monitor and it was not easy for them to teach online classes in general...good preparation, wise planning, mastery of IT skills... The instructor's control of the LMS and the learning environment are all very important (Shannon).

Thus, it was indicated that whether this factor impacts the participants directly, instructor control would be seen as a principal deciding factor to a majority of instructors due to its essentialness in ensuring a successful BL course.

#### **7.2.4.2 Instructor Attitude**

Instructor attitude and the willingness to teach a BL course was another identified continuity critical factor, which was discussed by a few participants. The key aspects below are positive experiences and personal convictions.

The participants had discussed Instructor Attitude in terms of their own *positive experiences*. Majed had elaborated how his own personal experience with DL courses had cultivated his BL continuity decision.

When I was studying for the ACCA I used to take some of the courses online...I really enjoyed it and they helped me a lot. I had a very good experience and so when we adapted BL courses, I was very welcoming to the idea of having some online classes take place within my course...I would also love to continue teaching more BL courses (Majed).

Similar accounts expressed that due to their previous and current positive experiences, they would gladly continue teaching more BL courses in the future, if given the opportunity. For example, David expressed how he " *was just so happy with everything and felt that teaching BL suited [him]*". Thus, his own positive outlook and pleasant experience with teaching BL courses had positively impacted his continuity decision. Instructor Attitude was not a critical factor which was commonly pointed out by a majority of the participants, however it was evident as a result of the discussions, that some of the participants' perceptions and willingness to teach BL courses, as a result of their experiences and level of satisfaction, impacted their decisions.

Furthermore, another aspect of Instructor Attitude was related to *personal convictions*. Certain participants had portrayed that their own attitude, in terms of personal beliefs towards BL courses, was one of the factors that drove their unfavorable decisions.

I would prefer F2F teaching than any other method of teaching. It's just my personal feelings, that I just like teaching F2F more...perhaps it's my belief or my personal feeling about it (Ethan).

I'm old fashioned. I just don't believe in it...I believe that F2F teaching is more effective than blended...I am willing to learn anything new, anything. But until I see something convincing. I stand by my choice (Mohamed).

Although, they had an overall positive experience teaching BL courses, they had their own personal convictions that traditional F2F teaching would always be the best mode of delivery and that their students could only genuinely learn by always attending a traditional classroom setting.

### **7.2.5 Course Factors**

This sub-section will present the identified continuity critical factors under the course dimension. The factors include: Course Quality, Course Type, and Course Flexibility.

### 7.2.5.1 Course Quality

Course quality was perceived to be an important deciding factor for a number of participants. The key aspect below is comparable quality standards as F2F courses.

The participants discussed Course Quality in terms of providing students with *comparable quality standards as F2F courses*, as they were adamant that the quality of the BL course should not be affected by the mode of teaching.

Quality definitely affects my decision...it is essential...we need to properly ensure that they are receiving equivalent teaching quality because the way it is now the courses are not of the same quality...That is very important because I think we have a long way to go and having people who truly understand how to re-design these things is essential (Helena).

Also, Albert discussed how currently surveys were taking place within his department regarding the current BL courses provided and explained that

if the results suggest that for certain courses you need to have brick and mortar...and others blended is fine...Obviously we will take all those parameters into consideration...however, quality is the most paramount thing here and definitely my decision will be based on quality.

Similar accounts had conveyed the importance of course quality and indicated that if the BL course is not of the same standard compared to when taught traditionally, then they would be less inclined to continuously teach their BL courses. The issue relating to course quality was one previously discussed, in sections 6.3.2 and 6.5.1, concerning the challenges faced and enhancements needed to improve the participants' level of satisfaction. However, it was evident that only a limited number of participants viewed course quality as a principal factor which could impact their BL continuity decisions. This could be because they viewed that they could personally improve the quality of the course moving forward, as they were the ones who would be in charge of re-creating digital course material in the future.

### 7.2.5.2 Course Type

Several participants elucidated that Course Type was an important factor which impacted their BL continuity decisions. The key aspect below is course requirements and online compatibility.

The participants had conversed about Course Type in terms of *course requirements and online compatibility*. They had expressed how certain course types were not suitable to be taught within a BL environment as certain courses required a great deal of F2F interaction with their students.

It just doesn't work for my course...we depend on a lot of lab work and not all labs are in person... so students end up winging it because they don't know what to do...they were just watching me do the lab work online...and if we are forced to reduce the number of labs to try and accommodate this BL, so I will not be able to complete my course properly...the quality will definitely be affected (Giovanni).

I also do things differently in my classes. I do activities such as role play...because I teach business law. So, one group is going to be the seller, one group is going to be the buyer, and they're going to negotiate a contract online. It's hugely difficult with all the online classes because there are a lot of students who are not participating...there needs to be a huge amount of research to get to the level where you can really, fully, clearly transpose the role play format into an electronic one (Catherine).

Similar accounts indicated that they would only be inclined to teach BL courses which are theoretical in nature. As previously mentioned in the subsequent sections, they found that teaching practical courses using their current BL approaches to be unsuccessful in terms of students' inability to effectively learn the course material and its effect on the overall course quality compared to when taught in a traditional F2F setting. It is important to note that Course Type was not a critical factor which was identified from the literature review, presented in Chapter 3, however, it is logical for a few participants to identify it as a deciding factor as they perceived that the heavy inclusion of the online environment, within their

practical courses, had made it impossible to have a successful experience. Though, as a result of the interviews conducted, I do suspect that the blend type may be the underlying issue in this case, as the participants were not in charge of structuring their courses in a manner which they perceived to be suitable for their course type.

### **7.2.5.3 Course Flexibility**

Course Flexibility was another critical factor identified by two participants. However, it was implied that it is not as principal as others. The key aspect below is learning opportunities for students.

The participants discussed Course Flexibility in terms of providing greater *learning opportunities for students*.

Let's say if you teach a masters course where many of your students are working students and you know they work in different cities, so then you would decide, yes, let me do this course as a blended one so I can give them the flexibility to take some of the classes online and maybe this would be helpful in terms of participation or engagement (Shannon).

The added flexibility was perceived as one of the greatest advantages of the adoption of BL and reaping certain benefits may somewhat influence their BL continuity decisions.

## **7.3 Chapter Summary**

This chapter presented the interview participants' CIU BL decisions and showcased the participants' perceptions regarding adopting future BL programs and courses within HEIs in the UAE. This chapter also showcased the critical factors which are perceived to impact the participants' CIU BL decisions.

In relation to CIU LMS, most of the participants expressed their intentions to continually use their LMS as they had found it to be of good quality, flexible, and able to support their teaching needs adequately. Thus, their overall satisfaction with the LMS used to support their BL courses had attributed towards their favorable continuity decisions; which

has been portrayed by several scholars to directly impact CIU LMS (Chiu et al., 2005; Cho et al., 2009; Hung et al., 2011; Lee, 2010; Limayem & Chung, 2011; Lin et al., 2011; Lin, 2012; Roca et al., 2006; Sorebo et al., 2009; Zhang et al., 2012). As well, the participants' favorable decisions stemmed from their convenience of having knowledge using the current LMS as opposed to others which may not be of better quality.

On the other hand, regarding CIU BL, the participants' decisions related to such were mixed, with the majority indicating their unfavourability. This is due to their negative experiences, dissatisfaction with the BL course and the type of blend which it followed, as well as their own convictions regarding BL being unsatisfactory to use as a teaching method especially with the nature of students who are enrolled in HEIs in the UAE. There was a majority view that their BL courses would always yield unsuccessful results due to the challenges faced and the nature of students who needed more F2F support. Success of BL courses is necessary in order to achieve BL continuity (Dhloakia et al., 2006; Stepanyan et al., 2013), and thus, the participants' view of the opposite occurring can help justify their decisions. More so, some of the reasonings behind the participants' decisions offered a glance into which critical factors are perceived to impact their BL continuity decisions. Moreover, shedding light on the reasons behind their decisions is an important academic contribution of this research study, as there is an evident lack of literature which presents instructors' CIU BL decisions in HEIs in the UAE.

As well, the majority of participants believed that adopting BL programs and courses within HEIs in the future would be necessary for the UAE to achieve their own goals. The participants believed that future BL adoption could increase student enrollment by attracting international students, provide married and working students with flexible learning opportunities, improve HEIs reputations and rankings which would enable them to compete on a global scale, and enhance the overall education sector in the UAE by allowing them to resume their place as the education hub in the MENA region.

Moreover, several continuity critical factors were identified and were split into five dimensions: Student, Instructor, Course, Technological, and Organizational. The factors

were discussed and were all described within varying degrees of importance, as not all factors presented were found to be influential by most participants. The most commonly discussed factors amongst the majority of participants included: Learner Self-Directed Learning and Self-Motivation, Learner Engagement, Instructor Control, System Quality, and Information Quality. System Quality and Information Quality have been found in research to impact CIU LMS (Al-Samarraie et al., 2017; McGill, 2014; Roca et al., 2006; Saba, 2012), and thus, the identification of these two factors were not surprising. However, other critical factors have not been found in research to be directly influential towards instructors' CIU BL decisions. There is complimentary research, demonstrated in Table 3.1, which portrays the relationship between these factors and satisfaction, which in turn impacts CIU decisions (Chiu et al., 2005; Cho et al., 2009; Hung et al., 2011; Lee, 2010; Limayem & Chung, 2011; Lin et al., 2011; Lin, 2012; Roca et al., 2006; Sorebo et al., 2009; Zhang et al., 2012).

Furthermore, Learner Engagement, which was identified by most of the participants as an influential critical factor, was not one of the 18 identified critical factors of BL, as a result of the extensive literature review presented in Chapter 3. The identification of such, is an important academic contribution, as it stems from the nature of students who study at HEIs in the UAE, as research has reported issues related to engagement among Arab students (Hiasat, 2018; Pennington, 2015). Further analysis related to the critical factors impacting instructors' BL continuity decisions are discussed in the subsequent chapter.

## **Chapter 8: Discussion**

This chapter will synthesize this study's findings and discuss their importance and significance. This chapter will also provide a critical analysis of the findings against the current literature. The discussion, presented in this chapter, has been divided into 3 sections which relate to this study's research questions.

### **8.1 Instructors' BL Experiences**

This section will present instructors' BL experiences, which are a cumulation of their general attitudes and opinions, the benefits experienced, and the challenges faced from teaching their current BL courses. This section will respond to RQ(a): *What are instructors' experiences regarding their existing blended learning courses?*

#### **8.1.1 Instructors' General Attitudes & Opinions**

To understand instructors' opinions and attitudes regarding teaching their BL courses, a combination of both the qualitative and quantitative analysis must be examined. Instructors' attitude is a vital factor contributing to the outcome of BL courses (Buchanan et al., 2013; Johnson et al., 2012; Thorton, 2010), which may impact its potential continuity.

Regarding the qualitative analysis, presented in Chapter 6, a combination of the instructors' impressions of their current BL courses, and its effect on their teaching experiences and job performance were discussed in-depth during the follow-up interviews. The figure below, Figure 8.1, provides an overview of the findings which will be discussed below within the following sections.



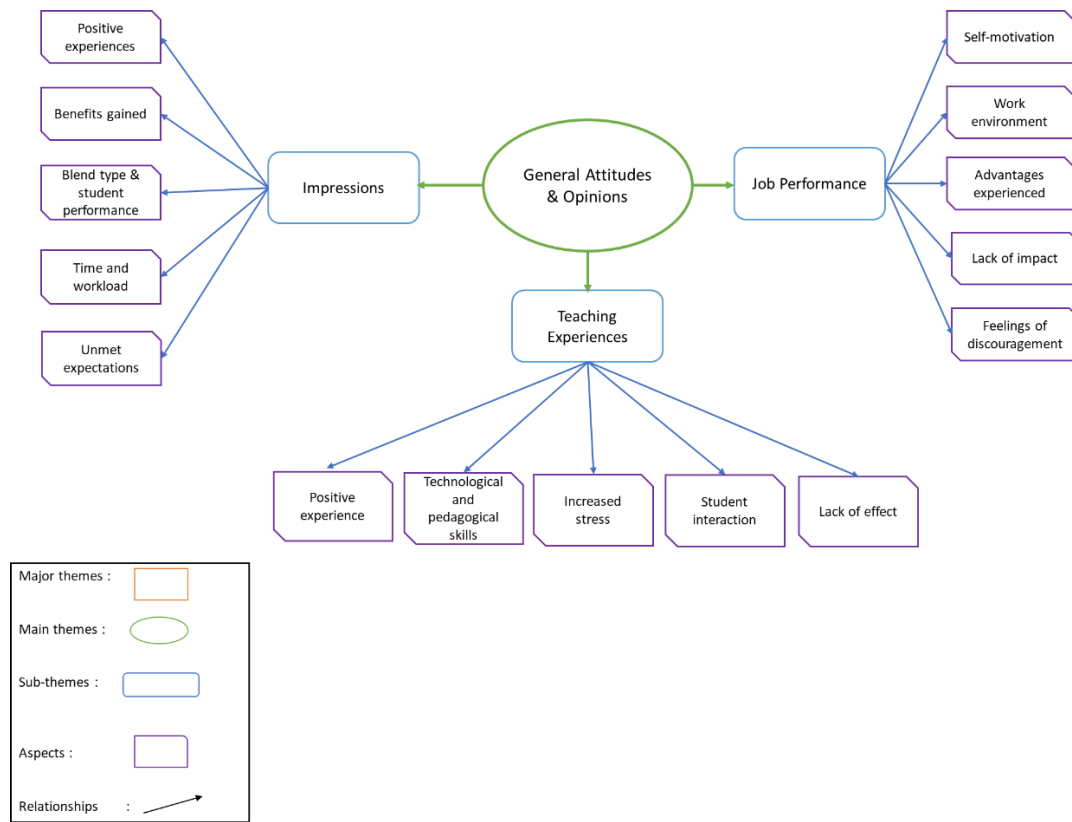


Figure 8.1 General Attitudes & Opinions

### General Impressions Towards BL Courses

More than half of the participants had expressed mixed attitudes towards their BL courses although they had all conveyed their recognition of how adopting a BL approach could benefit both them and their students. Yet, their mixed impressions were predominantly a result of the type of blend which the courses followed as well as the specific course subjects which they had felt were inappropriate for the BL environment. Certain participants, such as Grace, were also adamant that BL courses would only be ideal with students in Year 3 or 4 due to “*their maturity level to deal with the independent tasks*”. Also, it was described on several occasions that a bigger portion of the classes of the BL courses were conducted online which had resulted in several challenges faced. The main challenges which contributed to their mixed impressions involved additional academic workload as well as time spent re-explaining course concepts and creating online assessments. For example, Mina & Lilian found teaching their online classes quite exhausting as a result of double the amount of work it took to prepare for their BL courses compared to their traditional ones. Research has

reported how instructors are hesitant towards adopting BL as a result of the additional work and time required to convert their BL courses (Alghamdi 2016; Bousbahi & Alrazgan 2015). Additionally, the participants' accounts and attitudes are consistent with research related to the different ways of creating a blended environment. Osguthorpe & Graham (2003) discuss how specific blends which contain larger portions of the online environment are most undesirable as it includes weaknesses of both the online and F2F learning environment. Thus, this type of blend should try to be avoided when re-structuring courses as the aim is to ensure that the blend focuses on the strengths of the different learning environments and eliminates their weaknesses (Osguthorpe & Graham, 2003). However, despite the challenges faced, the participants comprehension of the numerous benefits which BL has to offer ultimately resulted in their overall mixed impressions.

On the other hand, there were 7 participants who had expressed overall positive attitudes regarding their BL courses. They had commonly asserted that they were pleasantly surprised with the outcome of teaching using a new modality, unlike their initial expectations of it being much harder to adapt to and that their students were not as negatively impacted by this change. For example, Christina was particularly surprised by the positive feedback received from her students and was impressed by how well her first-time experience teaching a BL course was. The comments made by those participants were not surprising as many of those interviewed had not had any previous experience teaching DL courses and did not know what to expect when senior managers had informed them of the rapid implementation of their BL courses. Research suggests that instructors are often dissatisfied with the manner in which senior management adopt and implement BL programs without communicating a clear strategy (McLean, 2005; Mozelius & Rydell, 2017; Surry et al., 2005). Thus, the participants' initial feelings of worrisome and confusion are somewhat aligned with such research. Also, they commonly discussed how by adopting BL they were able to enhance their teaching techniques and had the opportunity to re-design their courses and create new engaging material. This was particularly true for David, who was initially against the idea of adopting BL courses, but had expressed his extremely positive impression as a result of his "*excellent experience*" which allowed him to "*learn an awful lot*" and "*create completely new types of materials*". This is compatible with research which indicates that instructors

often report positive opinions and attitudes as a result of the varying advantages experienced when using BL as a teaching modality (McPhail & McDonald, 2004).

On the contrary, 3 participants had discussed their negative impressions towards teaching their BL courses, and commonly expressed that the reduction in students' grades and inability to fully grasp the course material were the main motives behind their opinions. For instance, Fares extensively spoke of this regard and expressed his utter disbelief of how low his students' grades were and the obvious lack of engagement and disinterest while teaching BL courses for his first time. Minhas et al. (2021) suggested that instructors' attitudes towards teaching BL courses may be affected by students' abilities to succeed in a BL environment and successfully take control over their learning. Thus, the participants' accounts of negative attitudes due to their students' inability of exceling in a BL environment is quite logical. Also, when instructors' expectations of their students effectively learning in an online environment is not met, they tend to view teaching BL courses as useless and can harbor negative attitudes towards its adoption (Brent et al., 2015). The issues regarding student grades were not widely discussed among the participants, however, none of them had discussed an improvement in student grades as a result of the adoption of BL. This is consistent with limited studies in the MENA region which still portray no positive changes in student grades from the implementation of a BL course (Akyuz & Samsa, 2009; Alshwiah, 2009; Alshawish et al., 2021; Kocoglu et al., 2011); even though a majority of studies in the MENA region indicate that the adoption of BL courses result in an increase in student performance (Adas & Bakir , 2013; Alsalhi et al., 2021a; Alsalhi et al., 2021b; Al- Zahrani, 2008; El-Deghaidy & Noubi, 2008; Gurpinar et al, 2009; Mousa, 2008; Shana, 2009).

#### Effect of BL Adoption on Teaching Experiences

There were a mix of responses related to the effect of adopting BL courses on the participants' teaching experiences. Many expressed its effect in a positive light and commonly emphasized that the implementation of BL undoubtedly enriched their experiences. They had discussed how teaching a BL course had provided them with some advantages such as allowing them to improve their IT skills, learning new ways of engaging students, gaining experience in proficiently teaching online courses, and becoming more

aware of creating interactive course resources which suit the blended approach. This was discussed the most by Shannon who had expressed her determination to succeed in teaching her new BL courses which had allowed her “*to become more flexible*” and “*eager to learn something new...and even interested to improve [her] IT skills*”. The participants’ accounts are consistent with research presented by Wang (2014) who reported that instructors display positive emotions as a result of the improvement in pedagogical skills from the implementation of technology within their courses.

On the contrary, other participants discussed how the implementation of BL had negatively impacted their teaching experiences. It was commonly portrayed as stressful and disappointing and required a lot of effort. For example, Giovanni was particularly disappointed with teaching his BL courses as he believed “*the whole thing has just diminished the academic experience*”. Also, the participants had conveyed how they believed that the BL approach was not suitable for their courses nor for the nature of the students who study at their respective HEIs, who are accustomed to a great deal of F2F interaction. Their accounts are somewhat compatible with research presented by Schindal et al. (2013) who had studied the impact of BL on their own instructors’ teaching experiences within nursing and pharmacology courses. They had reported that their instructors had enriching teaching experiences mainly because of the improved quality of interaction with their students and an increased level of student engagement. Thus, the opposite may be logical, as the participants reported a lack of interaction and engagement among their students, which they felt had diminished their teaching experiences. Moreover, Minhas et al. (2021) elucidated that instructors may harbor optimistic attitudes towards teaching their BL courses as a result of their current positive experiences, despite earlier ones. Thus, the contrary may also be plausible and thus somewhat consistent with the discussions had with certain participants, such as Catherine, who had previous positive experiences teaching BL at other HEIs in the UAE or different countries, and still portrayed current negative attitudes towards their BL courses as a result of their negative experiences.

In contrast, a few participants, such as Jerry, had stressed its unaffectedness and belief that experienced instructors should understand how to quickly adapt and teach the same

courses using the same proficiency irrelevant of the teaching modality. However, Aiden had stressed this point of view the most as he believes that the adoption of BL should not “*make any difference at all*” towards any instructors’ teaching experience, as he views it as “*just a different way of teaching*” the same course content. It is also important to note that reported literature fails to address how the adoption of BL may effect instructors’ emotions (De Lera Fernández & Almirall, 2009; Wang, 2014) and its impact on their overall teaching experiences (McLean, 2006) unlike, a great deal of research which focuses on studying the effect which adopting BL may have on students’ learning experiences (Afacan, 2018; Aramellini et al., 2021; Kavitha, 2018; Lomer & Palmer, 2021; Meyer et al., 2014; Mousa-Inaty, 2017; Poon, 2013; Smyth et al., 2012; Waha & Davis, 2014). Thus, focusing on understanding the effects of BL courses on instructors’ teaching experiences and displaying their varying emotions is significant in gaining a deeper understanding of their opinions and attitudes towards their BL courses as well as aiming to help address this shortcoming in literature.

#### Effect of BL Adoption on Overall Job Performance

There was an apparent majority opinion regarding how the adoption of BL had improved the participants overall job performance. As instructors no longer needed to commute daily to work, they had the opportunity to work more on their own research or other work-related projects, which they perceived to be helpful in increasing their overall job performance. Work environment has been found to positively impact job performance (Chandrasekar, 2011; Griffin, 2005), thus, the participants’ views of working from home resulted in them feeling more relaxed and contributing to an improved job performance is somewhat logical. They had also elucidated their motivation to learn new teaching techniques and re-design their courses by re-creating interactive course material which would engage their students as they felt its necessity with the incorporation of a greater number of online classes. This is compatible with literature which shows that motivation has been found to positively affect employees’ job performance (Griffin, 2005; Inayatullah & Jehangir, 2012; Van Knippenberg, 2000). Thus, their increased job performance as a result of their own motivation to create successful BL courses is reasonable. However, a few participants expressed how the implementation of a BL approach had no obvious impact on their job

performances predominately due to their prior experience teaching DL courses in other countries. For example, Fernando expressed how teaching online classes was “*a very natural format*” for him as a result of his extensive previous work experience; which had allowed him to know how to express himself clearly online and understand what types of engaging digital resources to use to keep his students’ interests and encourage participation. On the contrary, 3 participants expressed how their job performances were negatively impacted with this adoption due to the extreme increase in academic workload as well as their lack of motivation and negative experiences. For instance, Grace believed that her decrease in job performance and de-motivation had resulted in her inability to interact with her students and build the necessary teacher student relationships she was accustomed to, as a result of the blended model which her course followed. Kulowkowski et al. (2021) conducted research which studied the impact of forced implementation of e-learning due to Covid-19. They had found that this forced adoption can detrimentally impact instructors’ level of motivation and their overall job performance. The context of this study is different than this research, however, the participants did express how senior management had chosen to adopt BL abruptly. Therefore, it may be plausible that the participants who expressed a decrease in job performance could have felt so partly as a result of its forced implementation which led to their demotivation.

Moreover, it is important to note, that there is a lack of sufficient literature which studies the effect of BL implementation on instructors’ job performance, even though reported literature has found that job fit, which relates to teaching performance (Bath & Bourke, 2011), can impact instructors’ attitudes towards BL (Jnr et al., 2021; Kocaleva et al., 2014). Furthermore, the TAM Model does portray how perceived usefulness of a system, which relates to its job performance, impacts users’ attitude towards the system (Davis, 1989). Thus, it is necessary to understand how the participants perceive changes in their job performance, as a result of the adoption of their BL courses and associated use of the LMS, as it is another component which may affect their overall perceptions and attitudes towards their BL courses (Kulowkowski et al., 2021). Thus, shedding light on such can further explain the interviewed participants’ overall mixed attitudes towards their BL courses and enhance the body of literature.

Meanwhile, concerning the quantitative analysis, presented in Chapter 5, specific responses were chosen from the questionnaire to understand instructors' overall opinions and attitudes towards their current BL courses. The analysis of such is as follows:

- 59.8% provided a favorable response when asked if *“teaching a BL course enhances my teaching effectiveness”*
- 69.2% chose a favorable response when asked if *“using online instruction is useful for teaching”*
- 70.4% indicated a favorable response when asked if their *“overall experience teaching a BL course was better than what they had expected”*
- 71.9% chose a favorable response when asked if they are *“satisfied with teaching a BL course”*
- 80.3% chose a favorable response when asked if they *“would encourage other instructors to teach BL courses”*
- 67.7% perceive teaching BL courses & using the associated LMS as useful
- 77.7% perceive the use of the LMS, to aid with teaching their BL courses, as easy
- 86.3% use the LMS to teach their BL courses
- 74.4% are satisfied with teaching their BL courses and using the associated LMS

In conclusion, by combining the qualitative and quantitative analysis, it can be deduced that most of the instructors have positive attitudes towards their BL courses. Notably, by examining the quantitative analysis, it can be assumed that a larger portion of the participants had a more positive attitude towards their current BL courses compared to the smaller sample of the interviewed participants. This could have resulted from the differences in previous teaching experiences, where 67.7% of the questionnaire respondents had previous experience teaching DL courses compared to only 19% of the interviewed participants. It was deduced, as a result of the discussions of the interviews, that those who had prior experience, teaching DL courses in other countries, found it somewhat easier to teach their BL courses in the UAE, had a better overall experience, and a much more positive attitude compared to those who were experiencing it for the very first time. This is compatible with literature which suggests that instructors' previous experiences with BL can have an effect on their overall perceptions and attitudes (Minhas et al., 2021). Additionally, even the interviewed participants who had negative attitudes towards their BL courses, continuously expressed how the adoption of BL is the future of teaching and education in the UAE and that using a BL approach can be

advantageous to both instructors and students and can improve the overall learning environment if implemented and structured correctly according to every course type. Therefore, gaining an in-depth understanding of instructors' opinions and attitudes towards their BL courses is essential, as instructors' overall attitudes can affect the successfulness of their BL courses (Buchanan et al., 2013; Johnson et al., 2012; Thorton, 2010) and impact their BL continuity decisions, which in turn may potentially affect future BL continuity within their respective HEIs. Senior managers must pay attention towards their instructors' attitudes as it may also impact students' experiences (Sun et al., 2008). Thus, understanding instructors' overall positive attitudes towards BL is also significant and a positive indication for HEIs within the UAE, who are in the early stages of developing and implementing BL programs, and rely on their instructors to deliver successful BL courses in hopes of potential continuity. Also, comprehending instructors' opinions and attitudes towards their BL courses is necessary in order to help address the evident shortcoming in literature, which tends to focus on students' perspectives towards their BL courses instead (Çardak & Selvi, 2016; Mozelius & Rydell, 2017; Porter et al., 2016).

Nonetheless, the instructors' positive attitudes are somewhat consistent with limited research conducted in Saudi Arabia. The similarities in culture and HEIs systems between UAE and Saudi Arabia allow for such studies to be of importance to look at. Al-Saleh (2018) conducted a qualitative study in order to understand EFL instructors' perceptions towards the implementation of BL in a single HEI in Saudi Arabia. The study found that there were some mixed perceptions, however, most of the instructors had positive attitudes towards the implementation of BL and were satisfied with their overall experiences. Consequently, Aldosemani et al. (2019) conducted a mixed method research and found that 90% of the instructors had positive attitudes towards using BL as a teaching modality at their HEI in Saudi Arabia. Nevertheless, there is a lack of research which focuses on instructors' perspectives towards the implementation of BL in the Middle East (Bellibas & Gumus, 2016; Çardak & Selvi, 2016; Sajid et al., 2016) and more so within the context of the UAE, as research investigating instructors' attitudes and experiences towards using BL as a different teaching modality is extremely limited (Moussa-Inaty, 2017; Samsonova, 2020).



Lastly, Al-Thabet et al. (2020) conducted a qualitative study at the British University of Dubai and reported positive instructor attitudes towards using BL. Thabet et al.'s (2020) study is somewhat consistent to my research, however the context of this study is still quite different. The participants in Thabet et al.'s (2020) study were using the LMS to assist with their F2F instruction, however, no online classes were implemented within their BL courses. This is different to my study, where the interviewed participants had implemented transformative BL courses and as a result had implemented several online classes, thus, their perceptions are not limited towards only the adoption of technology within traditional F2F instruction. Hence, this re-iterates the importance of my research study as BL is not always simply implementing technology within a traditional course, yet it can be a transformative approach which combines “pedagogical approaches to produce an optimal learning outcome” (Discroll, 2002). Also, they had focused on one specific HEI in the UAE and had interviewed a very small sample size. Thus, my research study addresses these limitations by incorporating a greater sample size with instructors from various HEIs in the UAE, with a mix of both private and public institutions. Therefore, the inclusion of different types of HEIs does allow for a generalizable conclusion to be made in relation to instructors' perceptions and attitudes towards their BL courses in HEIs in the UAE.

### **8.1.2 Benefits of BL Courses**

The benefits of adopting BL in HEIs in the UAE had been discussed amongst all the interviewed participants, which was presented in Chapter 6. The figure below, Figure 8.2, provides an overview of the findings which will be discussed below within the following sections.

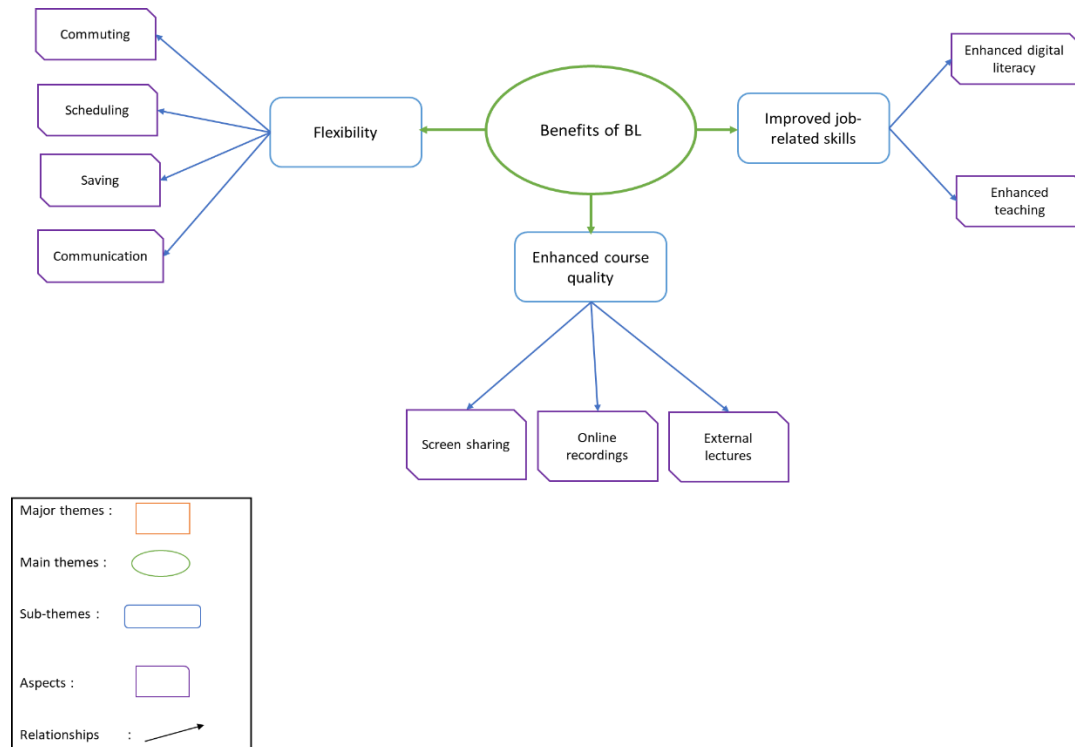


Figure 8.2 Benefits of BL

### Flexibility

The first advantage is the added flexibility experienced by instructors while teaching their BL courses as a result of the incorporation of a large number of online classes, which was structured in this manner by senior managers. As a result, the participants asserted that they experienced a greater level of flexibility from teaching their online classes from home and no longer needing to commute daily to work. Research has presented instructors' abilities of saving commute time; however, this benefit is most commonly seen within an e-learning context. Yet, as the participants taught a large portion of their classes online from home, then it is sensible to see commonalities in benefits experienced. They further expressed how they had more flexible schedules, felt less rushed in between their classes, and had more time to prepare for their classes beforehand. For example, Majed viewed the added flexibility in terms of ease and efficiency and expressed how simply joining in on an online class with a press of a button allowed for a more effortless transition of moving from one class to another which enabled the use of class time more effectively. This is consistent with a great deal of literature that has addressed flexibility as one of the most common advantages of BL from

an instructors' perspective, in terms of less commute time, greater flexibility of the instructors' schedule, and more time in between classes (Adarsh et al., 2021; Curtis & Lawson, 2001; Dziuban et al., 2004; Graham, 2004; Graham et al., 2013; Harding et al., 2005; Sharpe et al, 2006). As a result of the flexibility of working from home, certain participants described feelings of being more relaxed, comfortable, and energetic. This is not discussed clearly in literature, as there is a lack of studies focusing on describing instructors' emotions as a result of BL adoption (Wang, 2014), thus shedding light on their emotions, especially in the context of the UAE, helps contribute to this shortcoming in literature.

Also, as a result of no longer commuting daily to work, a few participants expressed how instructors would have the ability to save on transportation costs which is consistent with research related to e-learning (Hussein et al., 2020; Khan et al., 2022; Munro & Munro, 2004). Shannon, in particular, believed that women could find the adoption of BL even more advantageous, as there is more opportunity to save money in terms of buying clothes and the costs associated with getting ready for work every day. Additionally, Lai et al. (2016) suggested that one of the benefits of BL is the ability for instructors and students to communicate at any time. Thus, communication between instructors and students is no longer confined to set classroom times and office hours. This was discussed amongst Jerry & Fernando, who perceived that the flexibility in which BL offered was also related to their ability to respond quicker to their students' queries using WhatsApp groups or online chats. Jerry found this to be particularly helpful during exam times, as students could send questions at any time and he *"could just send them a voice recording to explain the particular topic"*, which made things much easier and more flexible compared to when teaching his traditional F2F courses which required students to physically meet him on campus during office hours.

### Course Quality Enhancement

The second advantage is the enhancement in course quality as a result of the incorporation of different online features. Several participants asserted how the ability to screen share videos or websites throughout the online classes allowed the courses to be more interactive as they had the ability to present more examples to enhance their students' learning experiences. Most of the participants, who discussed the benefits of screen sharing

taught STEM courses, as they believed that it had allowed the students to focus more on the process and understand certain course concepts better as a result of demonstrating how to solve course work step by step. This had also allowed the participants to provide their students with instantaneous feedback. For instance, Helena perceived the ability to use screen share as one of the most advantageous aspects of her BL course, as her classes include “*a lot of hands on activities*” such as “*programming, data analysis, and data modeling*”, and thus, being able to see her students’ screens during online classes made it much easier to provide them with support and respond to their queries much faster. Literature has shown students positive perceptions of using screen sharing to present their own work which allows for increased collaboration with their classmates and increased level of engagement (Caballero et al., 2014; Holmes et al., 2015; Stone, 2016). However, there is a lack of literature which has clearly demonstrated the advantages of screen-sharing from an instructors’ perspective in terms of how it may impact instruction or learning in an online environment (Stevensen et al., 2022). Stevensen et al. (2022) indicated that instructors valued the use of screen-sharing as they were able to present more digital resources during classes and a majority focused on how it allowed students to pay more attention to specific course material. Thus, the participants’ accounts are somewhat consistent in terms of students being able to focus on specific course contents by demonstrating how to solve coursework in front of them. However, the context of this research study is quite different, as Stevensen et al.’s (2022) sample were teachers in Australia who used screen sharing during F2F classes, unlike the participants who discussed the advantages of screen sharing when used in the online environment.

Additionally, the incorporation of online class recordings, which was a requirement set by the Ministry of Education, was perceived to have enabled their students to understand some of the course material better and allow for further discussions to take place during their F2F classes, as they had the flexibility to re-watch the online course sessions at their own convenience. David believed that this was one of the most beneficial aspects of his BL courses since his students were taking English as a second language, and thus believed that “*if they hear it a second time, then maybe it sinks in better*”. This is compatible with literature which suggests that the incorporation of online learning may allow students the ability of

more easily grasping the course material (Chen & Jones, 2007; Hadjianastasis & Nightingale, 2016; Mukhtar et al., 2020; Walsh & Rísquez, 2020). As well, Muthuraman (2018) conducted a quantitative study at Arab Open University in Oman, which aimed to understand students' perspectives regarding their BL courses among various departments. It was concluded that many of the students felt that the incorporation of the online class recordings was advantageous in terms of enabling them to grasp the course material better, and also helped in case any student had missed their online class. The Arab Open University does have a branch in the UAE, thus the similarities in this institutions' policies and procedures as well as the similarities among the culture between both countries does show the usefulness of looking at this research study. Additionally, Khalil et al. (2020) had concluded that the inclusion of online recordings positively impacted students' learning experiences at a HEI in Saudi Arabia. This study was concluded in relation to e-learning and not BL specifically, however the similarities in culture and the way many of the BL courses were designed, which included a larger portion of online classes, does enable me to make the comparison with this study.

Moreover, other participants had explained that by conducting numerous online classes, they had the ability to invite several guest lecturers from around the world, as it was much easier to do so online compared to the lengthy process of asking them to attend physically. Kevin spoke of this regard extensively as the opportunity to invite European and American diplomats to take part in his political science BL courses became easier and was extremely beneficial to improving the quality of his course and providing his students with greater learning opportunities. This is compatible with limited reported literature which acknowledged the ease of inviting more guest speakers as a result of implementing technology within the classroom (Sage, 2013; Singh et al., 2021; Zhou et al., 2019). This benefit may not be widely discussed as it does relate to specific course types which require the addition of external guest speakers. The participants further discussed how the inclusion of guest lectures resulted in an improvement in course quality and an enhancement in students' learning experiences. Thus, this advantage is consistent with literature which extensively discusses the benefits of BL in terms of gaining a wider breadth of knowledge (Bonk et al., 2002; Graham, 2006; Osguthorpe & Graham, 2003; Whitelock & Jelf, 2003;

Wu et al., 2010) and “pedagogical richness” (Adarsh et al., 2021; Graham, 2006; Osguthorpe & Graham, 2003; Swan, 2002; Whitelock & Jelf, 2003).

### Development of Different Job-Related Skills

The third advantage is the development of different job-related skills, especially concerning instructors’ digital abilities to proficiently use the LMS and other accompanying software to aid with the instruction of their BL courses. The participants expressed that the significant improvement in their IT skills had enabled them to teach their online classes more confidently and attain the necessary control over their BL courses. This was particularly true for Shannon who expressed a drastic improvement in her IT skills, as a result of teaching online, which has helped her proficiently teach her online classes and deal with technological issues on her own. This is consistent with literature which reported instructors increase in digital competency as a result of teaching DL courses and undergoing training (Daouk & Aldalaien, 2019; Keengwe et al., 2009; Porter et al., 2014; Stacey & Gerbic, 2008). The participants had also discussed how the adoption of BL courses had allowed them to elevate their teaching skills by adapting and improving their teaching styles, learning how to deliver the course material using different methods, and creatively finding ways to further engage their students. For example, Fares emphasized the he had to go through a learning curve in terms of understanding different techniques to speak to online students and learn different ways to deliver the new digital course material; while Christina believed that the adoption of BL gave her the opportunity to learn new techniques to engage her students which she found “*was even more engaging than in the physical classroom*”. This is also compatible with reported literature, related to e-learning, which suggest that instructors may improve their pedagogical skills as a result of teaching online classes (Dhawan, 2020; Dutta, 2020; Khan et al., 2022). The participants’ accounts are also in line with recent research conducted in the UAE by Khan et al. (2022) who studied students’ and instructors’ experiences with e-learning courses during the COVID-19 pandemic lockdown period. Khan et al. (2022) reported that the instructors had revealed that the implementation of e-learning courses had allowed them the ability to improve their IT skills as well as adopt new teaching techniques appropriate for the online environment. Thus, as the BL courses had incorporated a large

amount of online instruction, it is reasonable for such participants to experience similar advantages shared with e-learning courses.

In conclusion, the benefits experienced by the instructors while teaching their BL courses were flexibility, course quality enhancement, and improvement in job-related skills. However, other common benefits portrayed in BL literature, such as enhancing student engagement (Anthonysamy, 2020; Dehler & Parras-Hernandez, 1998; Jamaludin & Osman, 2014; Jhawar & Shrivasaava, 2020; Ruberg et al., 1996; Warschauer, 1997), increasing students' self-regulatory skills (Cleveland-Innes & Campbell, 2012; Crawford et al., 1998; Gilboy et al., 2015; Ginns et al., 2007; Lai et al., 2018; Wang et al., 2009), and improvement in students' academic performance (Donnelly, 2010; Woltering et al., 2009) were not found to be advantages experienced by instructors in the UAE. This in itself shows the significance of this research study, and the importance of re-assessing and understanding the advantages which instructors in the UAE had gained, as the culture and nature of students enrolled in the BL courses played an important role in the instructors' experiences. Furthermore, there is a lack of literature which focuses on the benefits experienced from an instructors' point of view in particular (Aramellini et al., 2021; Kavitha, 2018; Lomer & Palmer, 2021) and as a result of actual teaching (Stevensen et al., 2022). Therefore, the emphasis on the benefits of BL from an instructors' perspective as a result of their own teaching experiences can help address this shortcoming in literature.

### **8.1.3 Challenges of BL Courses**

Whilst discussing the challenges faced while adopting and teaching BL courses, the interviewed participants commonly explained how senior managers, and not the instructors themselves, had re-structured their BL courses in a manner in which a majority of the classes were conducted online as well as most of the assessments, other than the finals, were also conducted online. The type of blend, which was used to transform the BL courses, without taking the opinions of the instructors involved, in fact caused a lot of stress and frustration, especially for those who were teaching using a BL approach for the first time. Even the participants, who had prior experience teaching DL courses within different countries, had asserted that the culture in which the BL course is being taught was a major contributing

factor to the challenges in which they faced. As a result of the interviews conducted, 8 main challenges were identified. The figure below, Figure 8.3, provides an overview of the findings which will be discussed below.

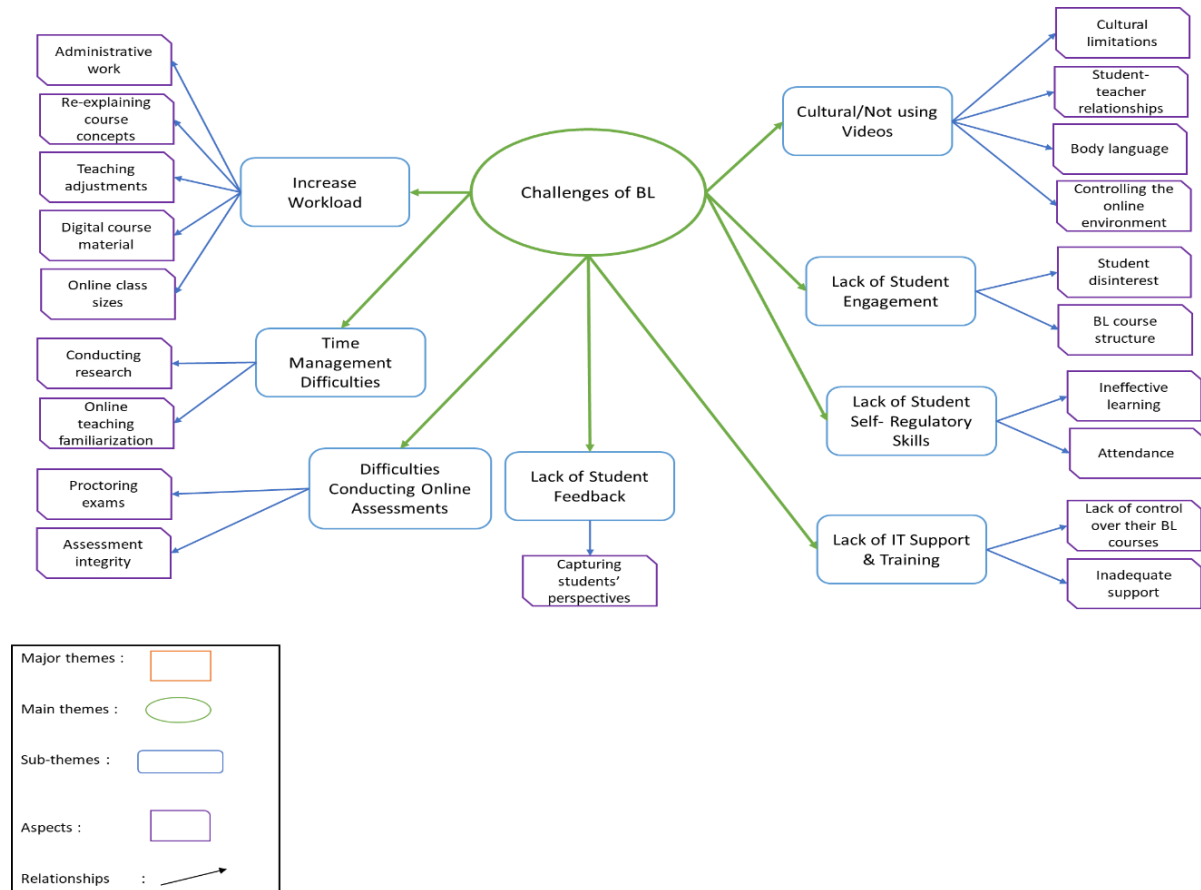


Figure 8.3 Challenges of BL

### Culture of Student Body

The first challenge discussed, which was expressed to be purely cultural, was related to students not using the video functions during their online classes. This was not surprising, as the culture of the UAE is known to be more modest in nature. Thus, it was explained that it was most common amongst the female Emirati students as their families would disapprove of them being recorded. This does relate to studies, which had been conducted in the UAE related to e-learning courses, which suggests that female students do not often use video or audio functions due to the conservative culture and feelings related to self-consciousness



(Abou Naaj et al., 2012; Khan et al., 2022; Mahadin & Hallak, 2019; Rajab & Soheib, 2021). It was also discussed by a few participants how this had also sometimes occurred with their male students. For instance, Shannon had discussed examples of the many conversations which she had with her male students, who often expressed their choice of not using the video functions due to concerns related to privacy or feelings of embarrassment. It is important to mention that this issue was experienced the most within public HEIs, as the rate of Emirati students is extremely high compared to non-nationals, unlike in private HEIs. Additionally, a few participants did explain how students being unable to use the video functions was also related to bandwidth issues. Thus, the participants discussed how this challenge had a negative impact on how they personally felt while teaching their online classes as they would often feel that they were speaking to “*blank screens*” (Wilson) which made it difficult to “*build relationships with [their] students*” (Grace), as they previously would have. For example, Jerry had expressed how this issue was very challenging especially within his larger classes; as he was usually accustomed to identifying the students by their faces, if he did not remember their names, but in this case, it became “*extremely difficult to put a face to the voice*”. As well, participants further discussed how they were unable to see the students’ body language or see their facial reactions, which often would help them comprehend if students understood the course material. Reported literature implies that instructors depend on body language and facial expressions to understand students’ needs as well as their apprehension of the course material (Delaney et al., 2010; Meyer, 2003), and that the lack of it may add to difficulties related to student interaction and teaching in the online environment (Al-Mahadin & Hallak, 2021). Additionally, they had asserted how they were unsure if the students were in fact attending the online classes as most often both video and audio functions were switched off for the duration of the class session and many students would not answer when being addressed.

### Students’ Self-Regulatory Skills

The second challenge discussed was the lack of students’ self-regulatory skills. The participants had indicated that this challenge stems from the nature of students who study within the educational system in the UAE, who don’t acquire the necessary self-regulatory skills, such as self-directed learning and self-motivation, prior to joining HEIs and often

depend on instructors to readily provide them with all the answers. It was also clarified that the students' lack of self-directed learning and self-motivation was a problem before the introduction of BL courses, however, with the implementation of many online classes, this challenge became much more impactful. Wilson spoke of this matter extensively, as he teaches at the only e-university in the UAE and has been teaching BL courses for several years. He stressed how many of the students enrolled at his institution "*are not pro-active in their learning*" and that for BL courses to be successful, "*it takes a special type of learner to join a university that follows a blended learning system*" as it requires them to be self-motivated and independently take the time to "*merge neurology to the lectures*". It was also asserted that students lacked the necessary motivation not only to be interested enough in the course but also to attend the online classes, which was believed to be the reason for the noticeable decline in attendance rates. Giovanni provided an example of such, as his institution had conducted anonymous surveys relating to BL courses and had expressed that "*the students have admitted that they didn't participate in all the classes the whole semester...they participated in two or three classes only*". More importantly, it was commonly discussed that this challenge was detrimental as students' self-directed learning and self-motivation are essential for the success of a BL course.

Facilitating self-directed learning among students and enhancing their level of self-motivation has been reported amongst numerous academics as a benefit resulting from the adoption of BL (Cleveland-Innes & Campbell, 2012; Crawford et al., 1998; Donnelly, 2010; Gilboy et al., 2015; Ginns et al., 2007; Lai et al., 2018; Wang et al., 2009; Woltering et al., 2009). However, recent literature has addressed the requirement of students attaining such self-regulatory skills to succeed in a BL environment as a drawback of its adoption (Greene et al., 2018; Kizilcec et al., 2017; Phillips et al., 2015; Rasheed et al., 2021; Rasheed et al., 2020; Zhu et al., 2016). Moreover, in the context of the UAE, students, especially those in the fundamental stages, are found to not have the necessary self-regulatory skills and can thus become de-motivated when undergoing technological learning (Osifo, 2019). This may be a result of the teacher-centered learning environment which students in the UAE are accustomed to from a young age, where students are encouraged to memorize the course material provided by their teachers in order to get a passing mark (Khan et al., 2022).

## Student Engagement

The third challenge discussed was the lack of student engagement. Participants asserted that this challenge is also a result of the nature of students who study at their HEIs. During the interviews, many participants used the word “control” when explaining how they were unable to regulate the learning environment, as they would when teaching in the traditional F2F setting, as they had felt that in order to ensure that students did well in such courses, they often needed to control their students behavior by consistently encouraging them to listen and participate during the classes. For example, Helena proclaimed that during online classes “*you don’t have full control over your audience...if the student, for instance turns off their camera, you lose control*”, as she would be unable to direct their learning and enforce participation as she normally would in a traditional setting. Reported literature has shown that many Arab students are taught from a young age to not question those who are considered more knowledgeable than them, which may help explain why students are not often seen proactively participating and taking part in discussions with their instructors, as they view them as more educated and responsible for their learning, and thus, do not question the knowledge that is being passed on to them (Al-Harhi, 2005; Al-Hashlamoun, 2021; Al-Issa, 2005; Wurtz, 2005). Thus, it had also been explained that the challenge surrounding the lack of student engagement was sometimes faced while teaching their traditional courses, however had become much more prominent ever since converting them into BL ones and incorporating numerous online classes. The participants had expressed how students were no longer interested and would not participate during the online classes as some of the students were pre-occupied with other activities. For example, Fernando and Fares had expressed their disbelief with how they had seen first-hand their students driving, sitting at a café, or being at work during the same time as their online class times.

Hence, several participants expressed their disappointment and frustration with how students seemed completely uninterested with attending and participating during the online classes, and that students most often would not take down any notes or ask any follow-up questions. Mina expressed how students were so unengaged to the point that in the rare instances that they would participate they would choose to just type in the chat rather than

take part in any class discussions. They also often felt that students had a false impression that the online classes were not as significant as the F2F ones, and thus they would be completely disengaged, and some would even switch off their videos and audios mid-session. Additionally, the participants asserted that the inability of seeing many of their students made it difficult to see when they began to lose interest and that it became harder to grasp their attention. However, others expressed that the lack of engagement was related to the lengthy class time as “*student’s limited attention span online*” (Wilson) was evidently less than F2F. For instance, Lilian had discussed how her own students had emailed her several times expressing how 2 hours of online class time was too long for them to stay engaged. Nonetheless, all the participants agreed that the noticeable drop in participation and interest was extremely disheartening as they felt that a lot of time and effort had been put into creating new engaging course material for their BL courses.

This challenge is compatible with the limited reported literature (Costa et al., 2012; Lai et al., 2016; Leite et al., 2013) yet, enhancing the level of student engagement is most often discussed as an advantage as a result of the adoption of BL (Anthonysamy, 2020; Davis & Fill, 2007; Dehler & Parras-Hernandez, 1998; Jamaludin & Osman, 2014; Jhawar & Shrivasaava, 2020; Kose, 2010; Ruberg et al., 1996; Warschauer, 1997). However, in the context of this students’ culture, learner engagement has been reported in literature to be a challenge for instructors who teach students from Arab countries (Pennington, 2015; Hiasat, 2018) and that the “western frameworks” (Hiasat, 2018), which are often used as roadmaps to DL programs in HEIs in the Arab region, fail to engage students who come from varying cultural backgrounds (Adham & Lundgvist, 2015; Issa & Siddiek, 2012; Pennington, 2015). Learner engagement and motivation are a result of students’ expectations and previous learning experiences (Hiasat, 2018; Orton-Johnson, 2009). Thus, it is essential that when instructors implement and teach their BL courses, the cultural context; i.e. the nature of the students and their educational backgrounds; and understanding of their pre-expectations from their BL courses, are taken into account to help limit the challenge concerning learner engagement (Hiasat, 2018; Poon, 2013). Furthermore, literature has indicated that students from GCC countries are unmotivated to attend and take part in online discussions (Al-Hashlamoun, 2021) as they view constant interaction with their instructors as an “essential

part of their learning process” due to their “high context and collectivist culture” (Al-Harathi, 2005). Thus, the lack of it in an online environment can de-motivate these students which results in them being unwilling to participate and engage during the online classes (Al-Harathi, 2005).

### Student Feedback

The fourth challenge discussed was the lack of student feedback. The participants had clarified how not being able to see students F2F as often meant that they could not see their reactions during the online classes and were unable to understand how they were perceiving the re-created course material and the changes involved with the implementation of the new teaching methodology. Participants expressed this situation as aggravating, as they were unable to catch student feedback throughout different phases of the course which was necessary to better enhance it in ways to increase its quality and help increase student satisfaction. For example, Christina described the difficulties in understanding students’ *“feelings and how they are perceiving the material”* which she believed was essential in order to re-adjust her teaching and know what course concepts to emphasize on *“as a result of their reactions”*. This is somewhat coherent with literature previously presented, in Chapter 3, which had stressed the importance of instructors being able to gather the necessary feedback from students regarding their BL course as well as their thoughts regarding instructor style and teaching quality, as it allows the necessary adjustments to be made in hopes of increasing student satisfaction and ultimately ensuring the successfulness of the BL course (Calderon et al., 2016; Hilliard, 2015; Mandouit, 2018; Neumeier, 2005). As a result, it is quite understandable how the instructors’ inability of collecting the necessary and essential student feedback would be an important challenge faced by many of the interviewed participants.

### Faculty Workload

The fifth challenge discussed was the increase in academic workload. To understand the faculty workload impact, it is worth noting that the typical teaching load of a faculty ranges between 12 to 15 credit hours per semester, irrespective of the class size, in addition to conducting research and serving both the university and the community. The participants

expressed how their academic workload doubled while implementing their BL courses, mainly to ensure that it was of the same quality as when teaching it in a traditional manner. Thus, a re-designing of the course material and changing the assessments, which were to be conducted online, were required. For instance, Ryan had explained how he had to spend a considerable amount of time *“looking for video materials, looking for PowerPoints, looking for things to enhance the classroom, and integration of interaction”*. Also, participants explained how the teaching load itself doubled as they were met with constant challenges regarding students being unable to understand the course material during the online classes, which in turn required the instructors to re-teach the given course material during the upcoming F2F sessions and provide extra office hours to ensure that all of the students’ queries were answered. Ethan provided examples of such and expressed how the increase in academic workload was a result of him having to teach the same material multiple times as the students would not understand the material from *“the recorded versions of the lecture”* and would require multiple *“sessions with them...to answer questions”*. In addition, certain participants such as Mohamed & Fernando asserted that the increase in workload was a result of learning a completely different form of teaching technique which often required over-communication; such as constantly asking follow-up questions and re-visiting the course material repeatedly to ensure that students fully grasped the information.

### Time Management

The sixth challenge discussed was the instructors’ difficulties with managing their time. The participants proclaimed that this challenge was due to the tremendous increase in academic and administrative work from teaching BL courses and had clarified that the adoption of BL was often stressful and required a lot of time to prepare and teach. While others discoursed that their issues regarding time management was related to ensuring that the syllabus was completed by the end of the BL course. They had found it quite difficult to do so, with all the challenges surrounding re-teaching the course material, and often had to rush near the end of the semester to complete all the deliverables. Thus, as a result many participants asserted their unhappiness with being unable to work on their own research and publish as often as they normally would. This was particularly irritating for David who was used to publishing *“12 high quality papers per year”*, but instead had *“absolutely zero time*

*to work on something new*” as a result of him teaching his new BL courses and dealing with the increased workload and difficulties with managing his time.

The challenges concerning increased academic workload and time management difficulties are compatible with research, which often reported an immense increase in academic workload among instructors (Hussein et al., 2020; Khalil et al., 2020). Additionally, a challenge concerning BL is the re-creation of good quality course material which often takes a tremendous amount of work and time, in order to keep students engaged during their BL courses (Aldosemani et al., 2018; Hughes, 2007; Klein et al., 2003; Leo & Puzio, 2016; Phillips et al., 2016; Porter et al., 2020; So & Brush, 2008). Terry et al. (2018) reported that instructors compared the increased workload to when they were preparing to teach for the very first time and had to learn to create their own material. Thus, this challenge is consistent with the participants’ experiences of an increased academic workload involving creating new course material to fit the new teaching methodology. Reported literature has also shown that this increase in academic workload often leads to de-motivation and dissatisfaction (Betts, 1998; Birch & Burnett, 2009; Ibrahim & Nat, 2019; Napier et al., 2011; Simpson, 2010; Zhou & Xu, 2007) and hinders the instructors’ abilities to focus on their own research or other work-related projects (Howell et al., 2005; Maguire, 2005; Meyer & Xu, 2009). Thus, this is consistent with the feelings expressed and the comments made by the interviewed participants.

#### Course On-Line Assessments

The seventh challenge discussed was conducting online assessments, which was elucidated by half of the participants. It was expressed how conducting most of the assessments online was a difficult experience especially for those who had no prior experience using the proctoring software needed. The participants also discussed the challenges involved with ensuring assessment integrity and clarified how there was a lack of control over the online environment and that no matter the technology in place, students still found ways to cheat. Fares provided examples of this scenario in which he proclaimed that he would find “*an answer like half a page that is copy and paste from Google*” even though he was “*using both Respondus Monitor and Lockdown Browser*”. As a result, instructors had

to spend much more time creating different forms of exams which would require students to use more critical thinking. Shannon had spoken of this regard extensively and expressed how she had spent a considerable amount of time re-designing her assessments, to ensure that students could not find the answers easily online, as it was “*a genuine challenge...to make sure that the tests we hold are characterized by integrity*”. Other participants also discussed the difficulties related to proctoring a larger number of students online. It was clarified that senior managers had decided to join students from different sections during the online classes of the BL courses, which resulted in doubling the number of students in class. Lilian expressed how the situation had become catastrophic and that she resulted in “*asking the other colleagues to come and help while monitoring*” as it was impossible for her to do so on her own with such a large number of students. Thus, certain participants such as Jerry asserted that there was a need to have “*teaching assistants present to basically help run smaller sections*”, as they usually would if the exams were taken on campus.

The interviewed participants’ accounts are consistent with literature related to online assessments within the e-learning context (Muzaffar et al., 2021) as the use of such virtual assessments are commonly used to assess students’ performance (Anderson et al., 2020). Grungen et al. (2019) did report that instructors deal with similar challenges related to cheating when students take online assessments, however, their study relates to online assessments taken within a setting where both the instructor and students are in the same physical room. Thus, the context is quite different, as the participants discussed such challenges where they and their students were not present within the same space, but rather conducted the examinations completely virtually. Nonetheless, literature related to online assessments in general do complement certain interviewed participants’ accounts and suggest that in order for instructors to overcome such challenges they will need to include more essay questions which require students to use analytical skills (Lee, 2020; McGee, 2013; Smith et al., 2005). However, it is important to mention, that challenges associated with assessment integrity in relation to adopting BL has not been clearly stated within my extensive literature review. This may be a result of the constant emphasis on understanding challenges from students’ perspectives and not necessarily from an instructors’ or as a result of the BL



structure that was adopted which implemented these types of virtual assessments which are used within e-learning courses.

### IT Support and Training of Faculty

The eighth challenge discussed was the lack of IT support and training. Several participants affirmed how the lack of IT support was either related to further training needed before or during the semester, as well as the lack of assistance received from the IT team regarding the instructors' queries related to the LMS and any other supporting software which was being used. It was even proclaimed by a few participants that due to the lack of training and IT support received, they had to find their own solutions to problems encountered by looking up videos online or asking other colleagues for assistance. Lilian had spoken of this regard and expressed her belief that the IT department were not pro-active enough when she and her colleagues had encountered problems; while, Shannon believed that the IT department should have provided her and her colleagues with "*some more IT support follow up*" as she would have appreciated "*someone to check up on [her] a month or two later and see what issues [she] had and maybe they could help [her]*" instead of merely leaving her deal with her IT problems on her own. Moreover, this lack of training and IT support contributed to instructors feeling a lack of control over their BL courses, due to being unprepared technologically, which made the teaching process a lot more difficult, time consuming, and stressful compared to when teaching the same courses in a traditional F2F environment. For example, Albert expressed how he began receiving numerous complaints from students due to his lack of digital literacy which he blamed on the lack of support and training from the IT department, even though he was previously accustomed to receiving a lot of praise from his students and institution for his teaching skills.

This challenge is consistent with literature which affirms that a requirement and disadvantage of BL is the need for constant IT support and sufficient training for instructors to acquire the necessary technological skills to be able to proficiently teach their BL courses (Dellanna et al., 2000; Matzat, 2013; Owens, 2012; Toth et al., 2008). Furthermore, literature has shown that instructors often report dealing with technological problems (Rasheed et al.,

2020) which they often do not know how to solve on their own (Leo & Puzio, 2016) due to the lack of IT support received (Ocak, 2011).

In conclusion, the 8 main challenges identified as a result of adopting BL from the instructors' perspectives include (1) students not using the video functions during online classes, (2) lack of self-regulatory skills among students, (3) lack of student engagement, (4) lack of student feedback, (5) increased academic workload, (6) time management difficulties, (7) problems associated with conducting online assessments, and (8) lack of IT support and training. The identification of the most common challenges is essential as the most common benefits of BL which are found in literature, such as increase in student engagement (Anthonysamy, 2020; Dehler & Parras-Hernandez, 1998; Jamaludin & Osman, 2014; Jhawar & Shrivasaava, 2020; Ruberg et al., 1996; Warschauer, 1997) and improvement in students' self-regulatory skills (Cleveland-Innes & Campbell, 2012; Crawford et al., 1998; Gilboy et al., 2015; Ginns et al., 2007; Lai et al., 2018; Wang et al., 2009), in this case were found to be cultural challenges, which instructors had faced. This in itself shows the significance of identifying and comprehending cultural challenges, which arise from the nature of students who study at HEIs in the UAE, as there is insufficient reported literature on culture-based research related to BL from instructors' perspectives (Çardak & Selvi, 2016; Mozelius & Rydell, 2017; Porter et al., 2016). Moreover, Sheerah & Goodwyn (2016) advocate the importance of understanding specific cultural challenges as it enhances the implementation of future successful BL courses within the specific region in which DL courses are to be taught.

#### **8.1.4 Summary of Instructors' Experiences**

The analysis of instructors' experiences highlighted themes related to their general attitudes and opinions, the benefits experienced, and the challenges faced. The most important findings related to instructors' experiences teaching their current BL courses are as follows:

- The majority of instructors have positive attitudes towards teaching their BL courses, which was predominately a result of the effectiveness measures which include: satisfaction, system use, perceived ease of use, and perceived usefulness.
- Most interviewed instructors believed that teaching a BL course had improved their job performance and half felt that it had enriched their teaching experiences.
- The instructors described flexibility, enhanced course quality, and improved job-related skills as the key benefits of teaching their BL courses.
- The instructors described 8 main challenges of teaching their BL courses. However, the lack of student self-regulatory skills, lack of student engagement, and students not using video functions when taking online classes were identified as cultural challenges.

These core findings contribute to the literature on benefits and challenges of BL by *portraying instructors' experiences from actual teaching and identifying cultural challenges*. These contributions will be positioned more directly in relation to the literature in Chapter 9.

## **8.2 Instructors' BL Continuity Decisions**

This section will present instructors' BL continuity decisions by presenting their willingness to continually teach their BL courses, at their respective HEIs, as well as their acceptance of continually using the LMS to support their BL courses. Thus, this section will respond to RQ (b): *What are instructors' intentions to continue using blended learning?* To respond to this question a combination of both the quantitative and qualitative analysis, related to CIU decisions, will be examined. Later, I will cover the enhancements which the instructors' discussed and can impact future continuity decisions.

Regarding the quantitative analysis, an examination of the responses provided by the participants related to CIU BL and the four effectiveness measures have been explored and presented in Chapter 5. It is necessary to also look at the results of the four effectiveness measures; perceived usefulness, perceived ease of use, system use, and satisfaction; as literature shows that all four measures have a positive and significant relationship to CIU (Alnezi, 2017; Cheng, 2011; Cheng, 2012; Chiu et al., 2005; Cho et al., 2009; Daouk &

Aldalaien, 2019; DeLone & McLean, 1992; Ghazal et al., 2018; Hung et al., 2011; Lee, 2010; Liaw, 2008; Limayem & Chung, 2011; Lin et al., 2011; Lin, 2012; Lwoga, 2014; Park et al., 2012; Piccoli et al., 2001; Roca et al., 2006; Saba, 2012; Sorebo et al., 2009; Venkatsh & Davis, 2000; Wang & Chiu, 2011; Zhang et al., 2012).

Therefore, when examining the analysis related to the responses of CIU, a total average result of 82.08% of instructors had provided favorable responses. Specifically, 76.33% responded positively concerning their continual intention to teach BL courses and 91.33% had also responded positively regarding their intention to continually use the current LMS. Furthermore, the results of the effectiveness measures show that the questionnaire respondents: (1) Strongly Agree that the LMS is easy to use, resulting in a favorable response rate of 77.69%; (2) Agree that their BL courses and the LMS is useful, resulting in a favorable response rate of 67.68%; and (3) Strongly Agree that they often use and depend on the LMS to enhance their BL courses, resulting in a favorable response rate of 86.33%. Additionally, concerning the responses related to satisfaction, 74.4% of instructors provided positive responses related to their level of satisfaction with both the LMS and the BL courses, and 71.85% had expressed their satisfaction with specifically teaching their current BL courses. Thus, it can be deduced from the quantitative analysis, gathered from the 319 instructors, that a majority have an intention to continually teach their BL courses and use the associated LMS in HEIs in the UAE.

Concerning the qualitative analysis, the participants provided varying responses in relation to the continual use of the LMS and their intentions to continually teach their BL courses. The figure below, Figure 8.4, presents a summary of the findings which will be discussed below.

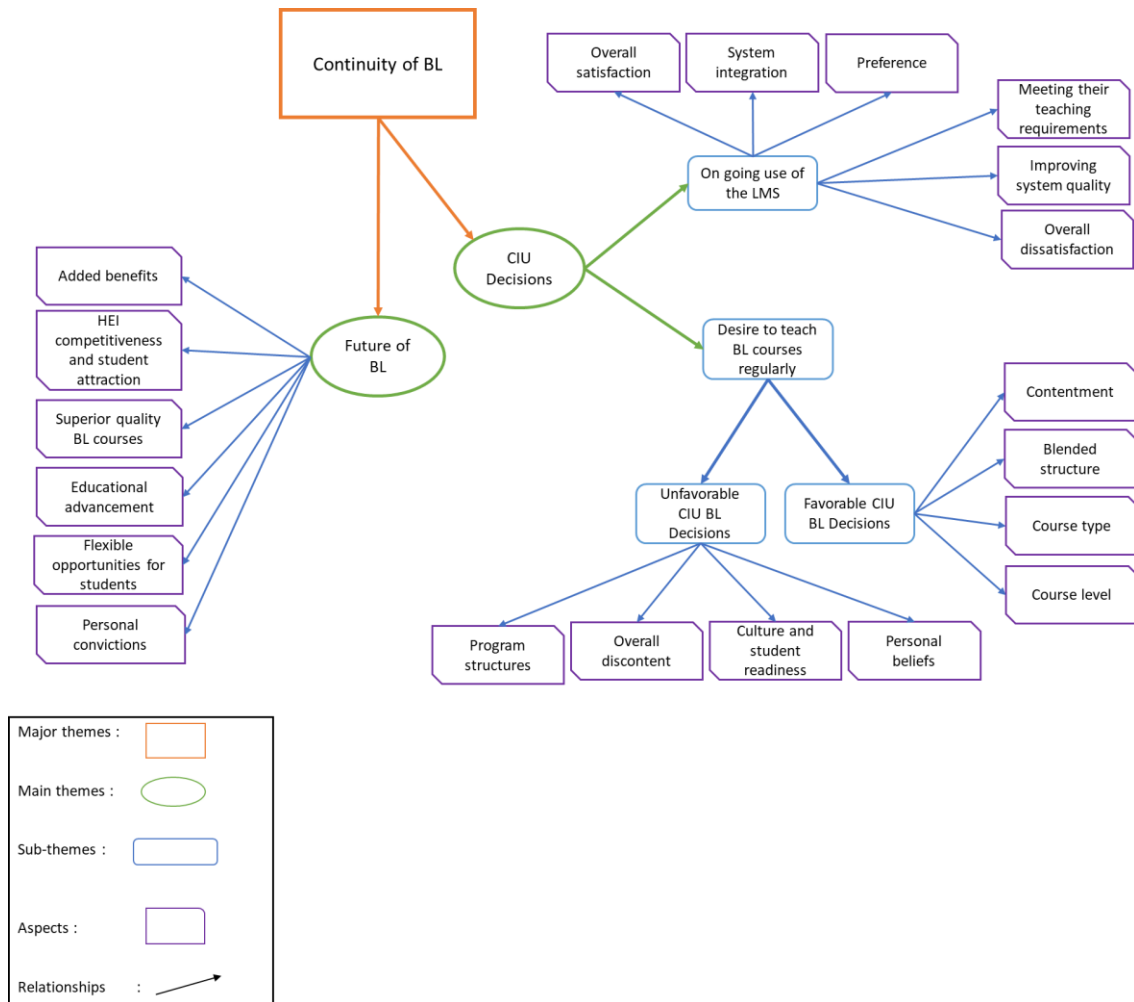


Figure 8.4 CIU Decisions & Future of BL

First, regarding the LMS use, many of the participants agreed that they would happily continue using the LMS provided to them to aid with the instruction of their BL courses. The main motivator behind their decisions was their satisfaction with the overall quality of the LMS, its ability to be used quite easily, as well as its usefulness in terms of aiding with teaching their BL courses. It was gathered from the interviews that most HEIs in the UAE either use Moodle or Blackboard, and that the available features were sufficient in meeting their needs. Others had expressed their favorable decisions as they were satisfied with the customized LMS which was created for their HEI, which combined various systems together. Moreover, it was elucidated by many participants that the LMS used efficiently supported their BL courses as it had allowed them to conduct several tasks such as uploading course material, taking attendance, grading etc. Thus, the interviewed participants' favorable CIU

decisions is supported by literature which has portrayed the positive relationship between system quality; which includes integration, functionality, interactivity, performance, response time, and reliability; (Alenezi, 2017; Alsabawy et al., 2016; Bailey and Pearson, 1983; Bhuasiri et al., 2012; Wan et al., 2007; Webster & Hackley, 1997) with CIU (Al-Samarraie et al., 2017; McGill, 2014; Roca et al., 2006; Saba, 2012). Yet, other participants had emphasized the need to find other features and capabilities of the LMS to better enhance their BL courses, which would improve their overall level of satisfaction. This is also in line with literature which shows user satisfaction as one of the strongest indicators of CIU (Chiu et al., 2005; Cho et al., 2009; Hung et al., 2011; Lee, 2010; Limayem & Chung, 2011; Lin et al., 2011; Lin, 2012; Roca et al., 2006; Sorebo et al., 2009; Zhang et al., 2012).

On the other hand, others had expressed their indifference with using any other LMS on the market as they indicated that they could also work just as well to support their needs. On the contrary, there were 4 participants who expressed their dissatisfaction with their LMS and proclaimed that if given a choice, they would no longer want to use it to support their BL courses. Specifically, David and Catherine acknowledged that the features provided by Blackboard were extremely limited and that more requirements are needed to support teaching their BL courses. While, Fares and Aiden asserted the need for their institutions to adopt a completely different LMS which would be more suitable for the nature of the online learning environment. Thus, it was deduced by the interviews conducted with such participants that the lack of system quality, their perceptions of the LMS not being useful enough, and their lack of satisfaction had a great impact on their continuity decisions. Reported literature portrays the impact of perceived usefulness, perceived ease of use, and satisfaction on CIU decisions (Cheng, 2012; DeLone & McLean, 1992; Ghazal et al., 2018; Liaw, 2008; Lwoga, 2014; Park et al., 2012; Piccoli et al., 2001; Roca et al., 2006; Saba, 2012; Wang & Chiu, 2011). Thus, the interviewed participants' unfavorable decisions are compatible with literature.

The participants' overall favorable accounts are somewhat compatible with research conducted by Rahrouh et al. (2018) who had studied instructors' perceptions of Moodle in terms of its usefulness. They used a mixed methods approach and included 56 instructors

from 5 colleges at Al Ain University of Science and Technology. Rahrouh et al. (2018) concluded that the instructors had positive attitudes towards the use of Moodle and would require further training to meet specific needs for varying colleges in order to learn more features which Moodle could offer. Literature has shown the positive relationship between perceived usefulness and CIU (Al-Murshidi, 2020; Bhattacharjee, 2001; Cho et al., 2009; Goh & Yang, 2021; Hyashi et al., 2004 ; Larsen et al., 2009; Lee, 2010; Limayem & Cheung, 2011; Ma et al., 2013; Muries, 2017; Sun & Jeyaraj, 2013; Venkatesh & Davis, 2000; Zhang et al., 2012), thus, the reported positive attitudes may partly influence CIU decisions. However, the context of this study is somewhat different to mine as the authors focused solely on the use of Moodle in terms of its usefulness and the sample only included instructors from a single HEI, unlike my research study which included a sample of instructors from varying HEIs who used different LMSs such as predominantly Moodle and Blackboard, as well as Microsoft Dynamics, iLearn, and other systems which were customized for the specific institution. My research study also looked at instructors' attitudes in terms of usefulness in addition to three other effectiveness measures: ease of use, system use, and satisfaction. However, the study reported by Rahrouh et al. (2018) is still important to look at, even though it does not study CIU, as it is one of the very limited research studies conducted in the UAE concerning instructors' perspectives related to BL and the associated LMS.

Second, regarding the participants' intentions to continually teach their BL courses, 11 out of the 21 had expressed unfavorable decisions. They had explained that their decisions stemmed from the negative experiences which they had undergone and their dissatisfaction with their BL courses. It was also indicated by many that their unfavorable decisions were also related to the specific course subject which they teach, which requires a great deal of practical teaching, which was difficult to do with the inclusion of numerous online classes. Additionally, several participants emphasized on how the culture and the nature of the students, which are often inexperienced at using BL methods prior to joining university, would learn much better using the traditional teaching methods as they currently lack the necessary self-regulatory skills needed to excel in a BL environment. They also believed that any type of blend being adopted would still lead to an unsuccessful result, as the type of

students who studied at their HEIs have limited critical thinking skills and need constant physical interaction in order to effectively learn. Literature has indicated that Arab students are accustomed to relying on memorization (Richardson, 2004) in order to achieve high grades (Sidani & Thornberry, 2009), which could clarify the participants' belief of their students lacking analytical skills. The interviewed participants' perspectives on this matter may also be justified by reported literature which classifies countries within the Arab region, including UAE, as "high-context cultures" (Würtz, 2005). Thus, students within these countries rely heavily on communication within F2F interactions as well as "non-verbal cues" (Al-Hashlamoun, 2021). However, as DL has been categorized as "low-context" (Würtz, 2005), students may find it harder to learn using the online environment due to the lack of physical interaction with their instructors (Al-Harhi, 2005; Al-Hashlamoun, 2021). As the courses, which the interviewed participants taught, included a large portion of online classes, then such research may apply within this scenario and can explain why the participants felt that their students would not excel in a BL environment as they require much more physical interaction and support from their instructors.

However, it was further indicated by a number of interviewed participants that they believe that the nature of students are expected to change in the near future, as a result of the government's plans to adopt BL across all schools in the UAE, and that this change will help students acquire the necessary skills needed which will aid them when joining BL courses and programs at HEIs. Thus, the participants' accounts are consistent with the UAE's focus of BL implementation in schools in order to achieve one of the Ministry of Education's initiatives, "Transformation to Smart Education", which has begun and places technology at the forefront of education (MOE, n.d). As a result, instructors' perceptions of continuity in the future may be more favorable if the nature of students change and become more accustomed to being online learners. Nonetheless, the participants' unfavorable continuity decisions, as a result of having an unsuccessful BL course, is consistent with Stepanyan et al.'s (2013) research which discussed educational attainment; which includes course quality, the learning environments' effectiveness, and the overall success of the course; as one of the three components of achieving BL continuity.



Moreover, 3 participants proclaimed that another reason for their unfavorable decisions were related to their own personal belief that teaching will always be better accomplished using F2F methods where a student-teacher relationship can be properly developed due to the constant F2F interaction. Scholars have claimed that instructors may be unenthusiastic towards teaching online as they believe that it lacks necessary components for effective teaching (Lee & Busch, 2010); such as the lack of non-visual cues, which adversely influence their levels of satisfaction (Mottet, 2000). Reported literature highlights that instructors would choose to no longer adopt BL courses as a result of their lack of satisfaction as well as their skepticism towards BL ever being able to replace traditional teaching methods, even with use of the latest technologies (Ibrahim & Ismail, 2021; Lee & Busch, 2010; Moskal & Cavanagh, 2013). Additionally, the participants' accounts are also compatible with reported literature, which has shown that instructor attitude has an effect on the level of instructors' satisfaction (Arbaugh, 2000; Khasawneh & Yaseen, 2017; Lwoga, 2014; Piccoli et al., 2001; Smeets, 2005), and that satisfaction also directly contributes to their CIU decisions (Chiu et al., 2005; Cho et al., 2009; Hung et al., 2011; Lee, 2010; Limayem & Chung, 2011; Lin et al., 2011; Lin, 2012; Roca et al., 2006; Sorebo et al., 2009; Zhang et al., 2012). According to TAM, attitude towards system use can impact CIU (Al-Murshidi, 2020; Ho, 2010; Liao et al., 2009), thus, it is logical to assume that instructors' overall attitudes and levels of satisfaction towards using BL as a teaching methodology can also impact their continuity decisions to use it in the future. While 2 participants expressed their desire to be involved in BL programs instead, where some courses were to be taught traditionally while others were to be fully online. Such participants believed that adopting BL programs would be more advantageous and would suit their students as a result of the numerous challenges faced. Their preference for BL programs, in terms of it having more advantages and the students' abilities of potentially meeting their academic goals as a result, can impact the continuity of BL within a higher educational setting (Dhlokia, 2006). Thus, their preference for BL programs over courses in relation to their continuity decisions is logical.

On the other hand, 10 participants had expressed their happiness with continually teaching BL courses due to their overall positive experiences and the many reaped benefits

compared to the traditional teaching methods. McPhail & McDonald (2004) reported that if instructors perceive the use of BL to be more beneficial than other teaching methodologies, then they would be more willing to continually teach BL courses. However, certain participants asserted that they would prefer to teach BL courses to older students, in Year 3 or 4, as they would be better suited to effectively learn in a BL environment as they would acquire the necessary self-regulatory skills needed in order to excel in such an environment. This is also in line with reported literature which has indicated that postgraduate students and more mature students could have more positive attitudes towards BL (Stacey & Gerbic, 2008), as they are more understanding towards the benefit which this learning environment could offer them (Castle & McGuire, 2010; Smyth et al., 2012), which may contribute towards a greater sense of self-motivation and self-directed learning (Vaughan, 2007; Woltering et al., 2009). They also proclaimed that they would prefer to change the type of blend of their current BL courses, as they had felt that there were too many online classes. Osguthorpe & Graham (2003) advocate that instructors need to find the right blend type for their courses which would reap the most benefits and suit their students, as varying blends may have different outcomes. It was also indicated that some of the participants would also prefer to teach theory-based BL courses as opposed to those which are practical in nature to avoid different challenges which they had faced. They had argued that it was extremely difficult for their students to grasp the course material as not all labs were conducted on campus and the number of online classes were considered too many for practical STEM courses. Their perceptions on this matter is compatible with the results presented in the quantitative analysis, as the results show that instructors who teach non-STEM BL courses have a greater intention to continue to teach their BL courses than those teaching STEM courses.

Literature has shown that STEM students enjoy taking BL courses more than non-STEM students (Owston et al., 2020; Vo et al., 2017), and that STEM students who enroll in BL courses outperform students who take the same courses in a traditional F2F setting (Bazelais & Doleck, 2018; Hill et al., 2017; Thai et al., 2017). Thus, indicating that the issue may not only be course type but also blend type, as several participants stressed the need to reduce the number of online classes and ensure that all practical activities were to be taken

on campus, with the possibility of the theoretical sessions to be taken online. Hence, it is important that senior managers understand that blend type varies according to the course type, as the type of blend can have a direct impact on instructors' decisions to continually teach their BL courses.

Irrelevant of the interviewed participants' continuity decisions, they had all discussed the future of BL in the UAE and almost all encouraged the implementation of further BL courses and programs across all HEIs. Many believed that this step forward was necessary for HEIs to be able to compete on a global scale, as well as attract students from varying countries, provide opportunities to working professionals who would like to continue their education, and create global partnerships by collaborating with other HEIs around the world. The participants' accounts are in line with literature which expressed how BL continuity can allow HEIs improve their student enrollment rates (Brown, 2010; Niemec & Otte, 2009) and aid in improving their institutions rankings (Baty, 2010). Whilst the UAE is currently considered as the educational hub in the Arab region (Wilkins, 2010), then achieving BL continuity would be necessary to gain return on investments (Niemic & Otte, 2009) and reap the expected benefits (Al-Samarraie et al., 2017). The interviewed participants also emphasized that the further incorporation of BL in higher education in the UAE is necessary and that the rapid development of the learning environment is a positive indication of the incorporation of BL as the new normal in HEIs. Hence, indicating a positive attitude amongst most interviewed participants regarding their future intentions to teach BL courses within their respective HEIs in the UAE.

Ultimately, all the participants had discussed that numerous changes needed to be made in order to ensure the future successfulness of their BL courses as well as their continued willingness to teach BL courses in the future. As discussed in Chapter 2, the UAE has portrayed its position of attempting to make BL the norm of the education sector (KPMG, n.d) with the completion of one of the goals of Vision 2021 by implementing BL across several schools and HEIs (KPMG, n.d; MOE, n.d; Vision 2021, 2011) and encouraging the development of future BL programs and degrees to provide opportunities of attracting international students (Amity, n.d; Zawya, n.d). The UAE aims to further progress different

BL opportunities within the education sector by investing billions of dollars in technological solutions (BettMEA, n.d; OxfordBusinessGroup, n.d). The figure below, Figure 8.5, presents an overview of the enhancements which will be discussed below.

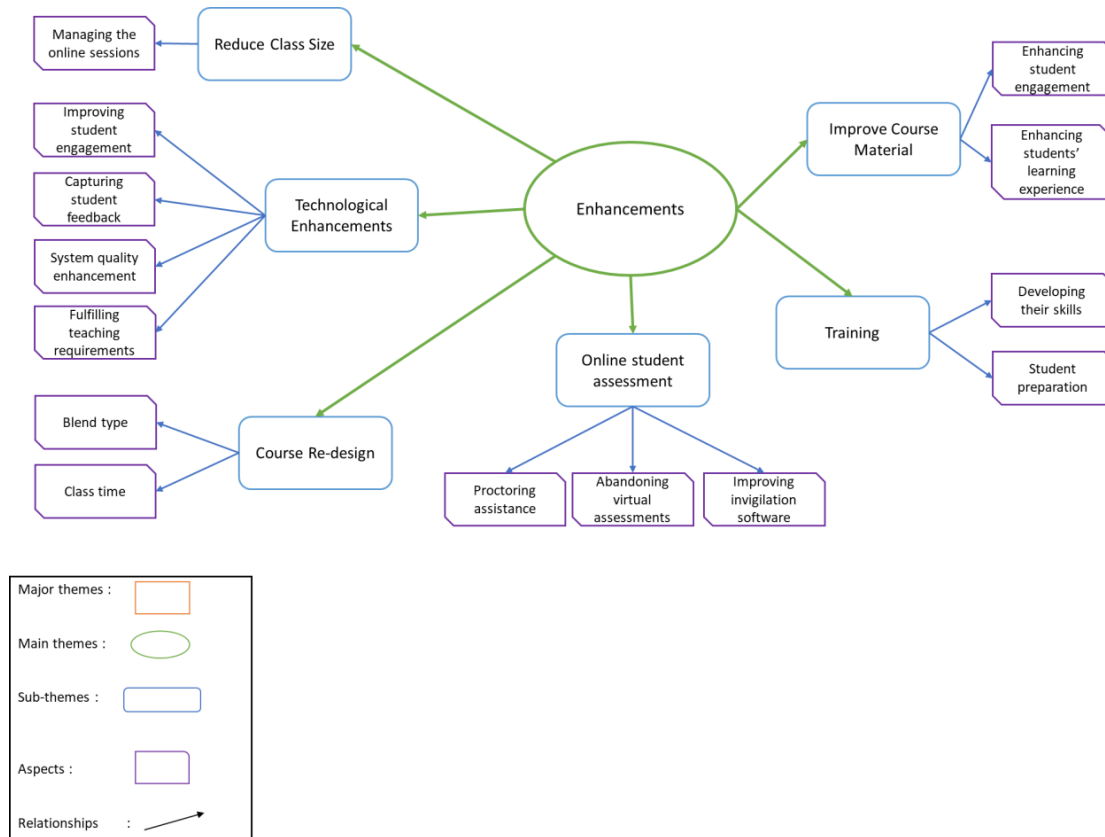


Figure 8.5 Enhancements

Most of the participants discussed 6 similar enhancements:

1. re-creating more interactive course material, which include visuals and graphics, as well as incorporating more digital resources and purchasing digital books, which would enhance student engagement and motivation as well as increase the quality of the course,
2. reducing the online class size to better manage the class and enable the facilitation of group discussions and participation among students,
3. re-structuring the course by changing the blended format and reducing the number of online classes. Such changes in the course design have been explained as detrimental to avoid the numerous challenges, which have stemmed from the way

their courses were currently designed, and will result in providing a better course quality and overall learning environment for students,

4. enhancing the technology used such as: (a) the incorporation of more digital tools and implementing further external software, (b) upgrading the video teleconferencing software used to conduct BL classes, (c) enhancing further features of the LMS to facilitate group activities, and (d) finding technological solutions to better capture student feedback. All these technological improvements were discussed in order of creating a better online learning environment which could evade the numerous challenges faced while teaching BL courses,
5. receiving additional organizational support in terms of training; on how to use the LMS more proficiently and using accompanying software to enhance their BL course; and providing students with further training opportunities particularly related to acquiring self-regulatory skills, and
6. improving and changing online student assessments in terms of senior managers providing sufficient proctoring assistance, updating and acquiring better invigilation software than what is currently being used, and abandoning virtual assessments, particularly midterms and finals, where both students and instructors are not in the same physical space. These enhancements were discussed in order to avoid cheating among students which was a common challenge faced when conducting virtual assessments.

The types of enhancements identified by the interviewed participants are compatible with literature related to continuity of BL such as (a) educational attainment through the creation of high-quality BL courses (Stepanyan et al., 2013) by re-designing interactive digital course content which can enable active discussions (Daouk & Aldalaien, 2019; Piccoli et al., 2001; Sun et al., 2008); (b) institutions needing to purchase the necessary advanced technological solutions to aid instructors with successfully teaching in an online environment and providing high quality BL courses (Littlejohn, 2003); and (c) providing instructors with training and continuous professional development programs (Gunn, 2011; Margaryan & Littlejohn, 2011; Stepanyan et al., 2003).

Other enhancements mentioned have been somewhat supported by literature such as (a) limiting online class sizes in order to facilitate insightful class discussions and avoid compromises to teaching quality (Harmon et al., 2014; Parker, 2003; Sorensen, 2015; Taft et al., 2011); (b) avoiding lengthy online class times to maintain student attention and engagement throughout the course session (Deng & Wu, 2018; Geri et al., 2017); and (c) offering student training concerning strategies relating to self-direction and self-motivation which can improve their abilities of becoming effective online learners (Bannert & Reimann, 2012; Meshram et al., 2022). However, literature has not shown a clear effect of these particular enhancements on BL continuity.

In conclusion, by examining both the quantitative and qualitative analysis, it can be deduced that most instructors have an intention to continually teach their BL courses and use the associated LMS at their respective HEIs. The differences in quantitative and qualitative results related to CIU BL specifically may be a result of many of the interviewed participants' inexperience with teaching DL courses compared to a majority of those who responded to the questionnaire. Thus, as several interviewed participants found their first-time experiences to be quite challenging, this impacted their continuity decisions. This is compatible with the results of the quantitative data which showed that a greater portion of instructors who chose favorable CIU decisions have previous DL teaching experience. Nonetheless, as the sample size of the questionnaire is 15 times that of the interviews, the results of the quantitative analysis are deemed more significant in this case. Other core findings showed that instructors' favorable CIU LMS decisions were predominantly a result of their satisfaction, the quality of the system, its integration possibilities, the LMS meeting their teaching requirements, and their own preference; while their unfavorable decisions were related to improving the quality of the system and their overall dissatisfaction. Whereas, many of the instructors' favorable CIU BL decisions were mostly conditional and based upon changing the blended structure, only teaching theoretical courses, and teaching BL courses to only senior level students. However, their unfavorable CIU BL decisions were predominately a result of personal beliefs, preference in providing BL programs instead, culture and student readiness, and overall discontent.

Thus, the comprehension of instructors' BL continuity decisions is a significant contribution to knowledge as there is an evident lack of research which showcases instructors' BL continuity decisions in HEIs in the UAE. This also addresses certain shortcomings in the current literature as the greater portion of CIU studies focus on examining students' perspectives and not instructors and also focuses on examining CIU LMS in particular and not CIU BL as a whole teaching modality. More so, the current literature fails to present reasons and conditions for instructors' BL CIU decisions, as was done in this research study.

The core findings, presented in this section, contribute towards the literature on CIU BL by *focusing on decision making as a whole and uncovering the reasons behind instructors' decisions*. These contributions will be positioned more directly in relation to the literature in Chapter 9.

### **8.3 Principal Continuity Critical Factors**

This section will present the principal critical factors which the instructors perceived to have influenced their BL continuity decisions. Thus, this section will respond to RQ (c): *Which critical factors are most influential, from instructors' perceptions, to continue to teach their courses using blended learning in actuality?* To answer this research question comprehensively, an integrated discussion of both the quantitative and qualitative results is presented.

Concerning the quantitative analysis, a ranking of all the critical factors can be seen in Figure 5.23. The highest ranked perceived influential critical factors include System Quality, Information Quality, Training & Development, Service Quality, and Instructor Control. This indicates that they are perceived to be the most principal to instructors' decisions to continually teach their BL courses and use the associated LMS. Other principal critical factors, recognized by the instructors, include Learner Control, Course Flexibility, Organizational Support, Instructor Teaching & Learning Style, and Assessment & Feedback.

Regarding the qualitative analysis, the majority of participants identified Instructor Control, System Quality, Information Quality, and Learner Control as influential critical factors which directly impact their continuity decisions. A number of participants also expressed how the following critical factors: Training & Development, Service Quality, Organizational Support, Instructor Attitude, and Course Flexibility could impact their continuity decisions to a certain degree. Furthermore, another influential critical factor, Learner Engagement, was identified as a result of the interviews conducted and was extensively discussed among the majority of the participants as a cultural critical factor which highly influences their BL continuity decisions.

Therefore, the top six most common critical factors identified by the questionnaire respondents, which are System Quality, Information Quality, Training & Development, Service Quality, Instructor Control, and Learner Control will be of focus and an in-depth elaboration of why such critical factors are perceived to be most principal to their CIU decisions will be provided as a result of the qualitative analysis. The factor Learner Engagement will also be included in the discussion below, as a result of the qualitative analysis. The figure below, Figure 8.6, presents a summary of these top six critical factors and the cultural continuity critical factor which will be discussed.



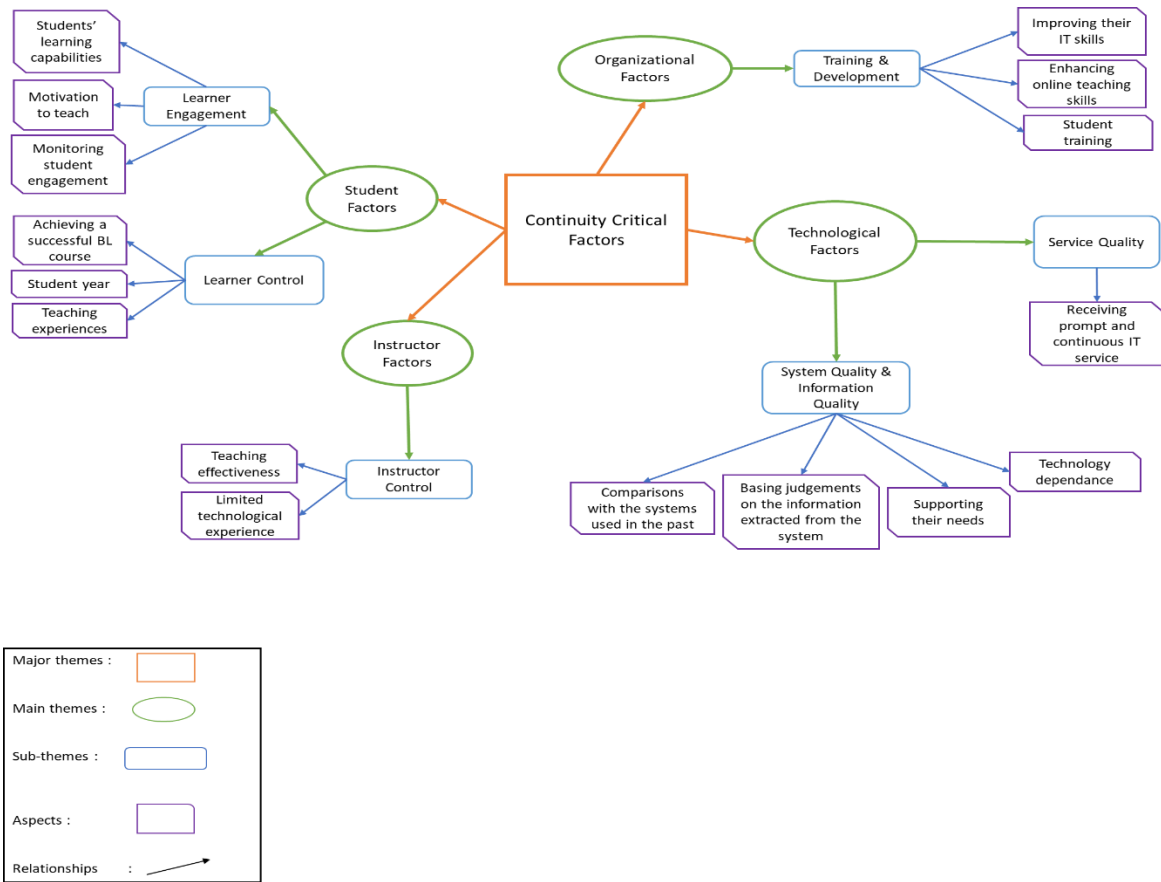


Figure 8.6 Top Seven Continuity Critical Factors

Critical Factors # 1 & 2: System Quality and Information Quality

The first and second ranked critical factors are System Quality and Information Quality. This was similarly discussed amongst most of the interviewed participants who all stressed the importance of these critical factors on their BL continuity decisions due to the structure of their BL courses which relied heavily on online teaching. Example of such relates to the statements made by Lillian who expressed how system quality is believed to be the single most important continuity critical factor due to the nature of her course, which incorporates a variety of technology. It was further indicated that due to the good system quality, she would gladly continue teaching BL courses in the future. Additionally, Fares & Catherine also proclaimed that system quality was one of the most influential continuity critical factors because of its poor quality and inability of supporting their classes. This factor had impacted their teaching experiences, how they perceived the LMS to be user-friendly

and beneficial to use while teaching their courses, and their level of satisfaction. As well, participants expressed how information quality was also essential to their continuity decisions for the reason that there could be a hinderance to the learning environment if the information produced by the system was not of good quality, irrelevant to the quality of the system. They also indicated that information quality would have a direct effect on their perceived usefulness of the LMS, their level of satisfaction, and ultimately their intentions to continually teach BL courses and continually use the associated LMS.

The discussions with the interviewed participants is consistent with the research studies presented in the literature review in Chapter 3, which presents that both System Quality and Information Quality directly impact the four effectiveness measures: perceived usefulness, perceived ease of use, system use, and user satisfaction (Aldalaien, 2019; Alnezi, 2017; Cheng, 2011; Cheng, 2012; DeLone & McLean, 1992; Ghazal et al., 2018; Liaw, 2008; Lwoga, 2014; Park et al., 2012; Piccoli et al., 2001; Roca et al., 2006; Saba, 2012; Venkatsh & Davis, 2000; Wang & Chiu, 2011). More importantly, these findings are consistent with literature which shows that both System Quality and Information Quality have a direct effect on CIU LMS & BL (Al-Samarraie et al., 2017; McGill, 2014; Roca et al., 2006; Saba, 2012).

### Critical Factor # 3: Training & Development

The third critical factor, Training & Development, was identified among the top six most perceived influential continuity critical factor by the questionnaire respondents. However, only 5 interviewed participants identified this critical factor as one that could affect their continuity decisions. The participants asserted how training affected their continuity decisions as it was fundamental to the success of their BL courses and could negate challenges, which they had faced. The participants also proclaimed how the lack of training received throughout the semester had an impact on their ability to proficiently use the LMS and accompanying software which impacted the use of the LMS to aid with teaching their BL courses as well as the level of control they had over such courses. Also, participants Mina & Albert discussed how their HEIs needed to provide continuous training throughout the semester to help with improving student engagement, as well as specific development programs related to creating recordings for their BL courses which would further improve

the quality of the course as well as encourage student self-directed learning and engagement during the classes. Additionally, participants Grace & Shannon focused on how training provided to students was essential to their decisions due to the nature of their courses which relied heavily on technology. They emphasized that if students were unable to effectively use the LMS due to the lack of provided training then they would be less willing to continually teach their BL courses. Therefore, it was deduced from the discussions I had with the participants that Training & Development was an influential critical factor which contributed to their continuity decisions in terms of further enabling to improve other critical factors, such as Instructor Control, Learner Control and Learner Engagement, which are seen as extremely influential continuity critical factors among the majority of the interviewed participants.

Moreover, it can be deduced as a result of the interviews that more participants did not identify training & development as an influential continuity critical factor due to the fact that some of them did feel that they were provided with sufficient training by their HEIs and did not necessarily feel that training & development would affect their current continuity decisions. Nonetheless, training & development was an enhancement identified by many other interviewed participants and thus, it is understandable how the lack of it in the future could influence instructors' satisfaction with teaching BL courses and in turn their future continuity decisions.

This is compatible with reported literature related to the continuity of BL presented by Gunn (2011); Margaryan & Littlejohn (2011); & Stepanyan et al. (2013). They had all suggested that for institutions to attain continuity of BL that an essential component revolves around training of all users and professional development for instructors to ensure the efficiency of the learning environment. Additionally, Gun (2011) suggested that for continuity to be achieved, instructors will need sufficient training to improve their IT skills. Moreover, Mouakket & Bettayeb (2016) had conducted a study identifying factors which affect instructors' perceived usefulness and ultimate CIU Blackboard in an e-learning context at the UAE University. The results showed that training influenced instructors' perceived usefulness of Blackboard which can possibly influence CIU LMS & e-learning. This study

is somewhat compatible to the findings of this research thesis; however the context is still different as Mouakket & Bettayeb (2016) studied the CIU of Blackboard at one particular HEI within an e-learning context, unlike this research study which examines 18 critical factors which are perceived to impact instructors continuity decisions towards teaching BL as well as using several varying associated LMSs. However, there has been no research studies, based on my extensive literature review, which has clearly identified Training & Development as a critical factor which has a direct impact on CIU BL from an instructors' perspective.

#### Critical Factor #4: Service Quality

Service Quality was the fourth ranked critical factor identified by the 319 questionnaire respondents. However, this factor was only identified by a small number of participants as influential towards their CIU decisions. The participants believed that receiving consistent and prompt IT service was essential for them to negate challenges which they had experienced. This in turn had impacted their level of satisfaction with teaching a BL course and using the associated LMS. An example of such related to the discussion had with Shannon who believed that timely and consistent IT support was required to understand how to use the LMS and other associated software and in turn had partly impacted her overall experience and level of satisfaction with using the LMS and teaching a BL course. The participants also viewed efficient and effective IT service as a necessity for them to gain sufficient control over their learning environment which in turn could impact their CIU decisions. Lillian spoke of this extensively as she believed that the service quality ought to be "*quick, efficient and effective*" to "*meet the remote teaching requirements*" which ensures that she gains sufficient control while teaching her BL course. Thus, the identification of Service Quality was looked at in terms of improving another principal continuity critical factor Instructor Control, which was identified by most of the participants. Service Quality was not viewed as a principal continuity critical factor to the majority, as was identified by the 319 questionnaire respondents, which may be a result of them perceiving this factor as secondary. Another reason for such a difference may be a result of some of the participants experiences of not dealing with such a challenge either due to their own previous DL teaching experiences or their HEIs providing them with sufficient support. However, certain

participants did acknowledge that if the quality of service provided was not sufficient to meet their needs then it could impact their CIU decisions in the future.

The participants accounts are consistent with the research studies, previously presented in section 3.3, which shows the positive relationship between service quality and user satisfaction (DeLone & McLean, 2003; Khasawneh & Yaseen, 2017; Moses et al., 2008; Wang & Chiu, 2011). Furthermore, the identification of this factor is consistent with literature, previously presented in section 3.4, which presents the positive relationship between Service Quality and CIU LMS & BL (Al-Samarraie et al., 2017; McGill, 2014; Roca et al., 2006; Saba, 2012).

#### Critical Factor #5: Instructor Control

Instructor control was the fifth ranked critical factor identified by the 319 questionnaire respondents and this critical factor was discussed amongst most of the interviewed participants. The participants stressed how effectively understanding how to use the associated LMS along with any other accompanying software is of utmost importance when teaching BL courses, especially those with numerous online classes. They asserted the necessity of not only mastering the technologies used, but also learning how to fully use its capabilities in such a way to enhance the learning environment and improve their experiences as well as their students'. The participants also emphasized that the inability of an instructor to have full control over the BL courses would have a detrimental effect on the teaching effectiveness, which would lead to dissatisfaction with the course and their unwillingness to continually teach courses using BL. It was also indicated that the lack of control would also impact students' capabilities of effectively learning and grasping the course material which would ultimately also impact their level of satisfaction. The participants' opinions on the matter is compatible with literature, presented in Chapter 3, that shows that instructor control impacts instructor satisfaction (Tshabala et al., 2014), student satisfaction (Al-Busaidi, 2012; Khasawneh & Yaseen, 2017), as well as learning outcomes (Arbaugh, 2000; Khan, 2005).

Based on the literature review concerning CIU, presented in Chapter 3, there has been no indication of the direct relationship between Instructor Control and CIU BL. However,

this finding is somewhat compatible to a recent study conducted by Al-Marroof et al. (2021) who aimed to study CIU of e-learning at a public HEI in Dubai from both the instructors' and students' perspective. Al-Marroof et al. (2021) concluded that Technological Efficacy, Technological Pedagogical Content Knowledge (TPACK), and Perceived Organizational Support had positive relationships towards CIU e-learning from instructors' perspectives. In this case, Technological Efficacy was defined similarly to one of the components which make up the critical factor Instructor Control. Also, TPACK consists of aspects related to the critical factors: Instructor Teaching & Learning Style and Material Quality & Learning Resources. Thus, the findings of this research thesis is somewhat complimentary however, the context of this study is still quite different as the focus was on examining certain effectiveness measures which was believed to motivate and affect users' decisions to continually use e-learning, rather than examining numerous critical factors which may affect their BL continuity decisions, as was done in this research thesis.

#### Critical Factor # 6: Learner Control

The sixth factor, which was ranked by the questionnaire respondents, is Learner Control. This was also one of the most commonly discussed by the interviewed participants who asserted how Learner Control, which encompasses self-directed learning and self-motivation, is crucial to their willingness to continually use BL as a teaching methodology. The participants asserted that their emphasis on this critical factor was due to the nature of the students, who study at HEIs in the UAE, who most often lack the necessary self-regulatory skills needed to be able to effectively learn when incorporating online teaching. The participants highlighted the necessity for students to be highly motivated and independent learners in order to succeed in a BL environment. This is compatible with literature which describes students acquiring self-regulatory skills as a pre-requisite of BL success (Barnard et al., 2009; Van Laer & Elen, 2016) and achievement of higher grades (Owston et al., 2013; Tsai & Shen, 2009).

It was further explained amongst the majority of participants that if at any point in time, they had felt that their students were unable to effectively learn, as a result of their lack of control and lack of self-regulatory skills needed, then they would most definitely choose

to discontinue teaching their BL courses. Several interviewed participants had asserted how their unfavorable decisions were mainly due to the students' lack of control, as it had become clear that they were unable to learn and excel compared to when using the traditional teaching approach. Furthermore, several participants had proclaimed how students' lack of control and their inability to effectively learn the course material had a direct impact on their level of satisfaction with their BL courses. This is compatible with previously discussed literature, presented in Chapter 3, which shows that learner control has a direct correlation with user satisfaction and the overall success of a BL course (Selim, 2007; Song et al., 2004; Van Laer & Elen, 2016; Wang et al., 2013; Yilmaz, 2017). However, there has been no indication that learner control has a direct impact on CIU BL. As previously discussed, user satisfaction has been proven in literature to directly affect CIU LMS & BL, thus, the identification of learner control's direct impact on instructors' BL continuity decisions is quite logical.

#### Critical Factor # 7 (New): Learner Engagement

An additional critical factor, Learner Engagement, was discovered as a result of the conducted interviews and was widely discussed by most of the participants. Learner engagement is not one of the 18 critical factors which was extrapolated from research and tested in this study because it was not identified when conducting the extensive literature review presented in Chapter 3. Learner engagement was thus an identified cultural critical factor due to the specific nature of the students who study at HEIs in the UAE. As previously discussed in Chapter 6, a larger population of the students, especially those in public HEIs where the ratio of national students are higher, lack the necessary self-motivation to learn which in turn has an effect on their willingness to engage and participate during their classes, especially during the online classes of their BL courses. As well, the challenges in which the participants had faced relating to students not using the video and audio functions as well as their evident lack of interest and participation throughout the online classes, made this factor detrimental to all participants. It was indicated by all interviewed participants that student engagement is a necessity of BL successfulness and is thus an extremely influential critical factor which impacts their continuity decisions.

Numerous interviewed participants had emphasized the need for student engagement especially during the online classes to understand if students were truly grasping the course material and that without the necessary engagement, there was a lack of interest and discussion, which had been explained to be essential to the learning process. It was further debated by participants how if the necessary learning was not taking place, then ultimately teaching using BL would be considered unsuccessful and would thus discourage instructors from using BL as a teaching methodology. Specifically, Aiden & Shannon had elucidated that due to the lack of student engagement, which had been experienced within their own BL courses, they had already decided that if given a choice, they would no longer continue teaching their BL courses in the future. It was also expressed by many interviewed participants that when students no longer engage and do not show any interest in the course, it ultimately affects instructors' passion for teaching and their own level of satisfaction, which in turn has a direct impact on their decisions to continually teach using BL.

The identification of Learner Engagement as a cultural critical factor is fairly compatible to a recent study carried out by Shatat & Shatat (2021) who sought out to study the critical factors related to successful e-learning usage from students' perspectives in a private university in Bahrain. This study followed a mixed method approach which adopted a TAM framework that incorporated 13 varying factors. The results of this research study showed that student engagement, along with awareness, system quality, student self-efficacy, and technical support, had positive and significant relationships to successful e-learning usage. The context of this study is in fact different from the current investigation, as it focuses on students' perspectives in an e-learning environment, however, the identification of student engagement in Bahrain can be seen as somewhat complimentary to the findings of this research thesis, as both the UAE & Bahrain are both countries part of the GCC and share similar cultures and HEI systems.

Moreover, it is important to specify that it was understood from the interviewed participants that instructors' continual decisions were based on a combination of these influential critical factors and not one on its own. Yet, there was an emphasis on students' abilities to properly learn using BL as a teaching mechanism. This could explain why certain



factors, which directly affect instructors, such as workload & time allocation was rated lower than others and was not even discussed among the interviewed participants when examining influential critical factors. Thus, it was continuously explained by a majority of the interviewees that the essence of an instructors' profession is to educate students, and if they sensed that their students were unable to excel using BL as a teaching mechanism then the instructors would no longer choose to continually teach their BL courses.

In conclusion, based on both the quantitative & qualitative analysis presented in this research study, the most perceived principal critical factors which influence instructors' decisions to continually teach their BL courses and use the associated LMS in HEIs in the UAE are: System Quality, Information Quality, Training & Development, Service Quality, Instructor Control, and Learner Control. Based on the qualitative analysis, Learner Engagement should also be added as a cultural and extremely influential continuity critical factor. The varying mix of the qualitative sample size which include instructors who teach 20 varying STEM & non-STEM course subjects from 20 different HEIs, from public and private institutions, does allow me the ability to generalize my finding. Therefore, indicating that the critical factors found in the extensive literature review ignores contextual ideas and that the critical factors need to be constantly updated based on the specific country and culture in which is being studied. It is also important to re-outline that instructors believed that a combination of the identified principal continuity critical factors would impact their CIU decisions and not particularly one on its own, however, there was an emphasis on the factors related to the students. Learner Control and Learner Engagement were viewed as essential factors which could impact future CIU decisions as they are believed to have a direct impact on students learning capabilities and the outcome of the BL course.

The core findings, presented in this section, contribute towards the literature on critical factors of BL by *identifying continuity critical factors and showcasing its relationship on instructors' CIU decisions* and *discovering a cultural continuity critical factor*. These contributions will be positioned more directly in relation to the literature in Chapter 9.

## 8.4 Chapter Summary

This discussion chapter set out to extensively answer the three research questions of this research study. Corresponding to RQ (a), the majority of instructors had an overall positive attitude towards implementing and teaching BL courses. Many instructors, who participated in the follow up interviews, expressed how they believed adopting a BL teaching approach improved their job performance. While half of such participants explained how teaching their BL courses had enriched their teaching experiences. Moreover, the most common benefits experienced by instructors while adopting their BL courses included flexibility, enhanced course quality, and improvement in job-related skills. Furthermore, the most common challenges faced by instructors included students refusing to use the video functions while taking online classes, lack of student engagement, lack of self-regulatory skills, lack of student feedback, increase in academic workload, time management difficulties, problems associated with conducting online assessments, and lack of sufficient IT support.

Concerning RQ (b), most of the instructors expressed their intentions to continually use the LMS provided to them at their HEIs. By examining the quantitative analysis, most of the respondents perceived the LMS to be useful and easy to use, use the LMS to aid with the instruction of their BL courses, and are satisfied with it. This was corroborated with the responses provided by the interviewees, where most of them had discussed how they were highly satisfied with the use of the LMS and found it to be of good quality and easy to use. Additionally, the results of the analysis present that most of the instructors have an intention to continually teach their BL courses in the future. This was clearly presented within the quantitative analysis, where most of the participants responded favorably to their level of satisfaction with their BL courses and their intentions to continually teach them. However, the qualitative analysis provided mixed results, where most of the interviewees expressed their unwillingness to continually teach their BL courses mainly due to their dissatisfaction as well as the numerous challenges faced while implementing and teaching their BL courses. This inconsistency in results may be related to the inexperience of most of the interviewees, with teaching DL courses, compared to the questionnaire respondents.

Regarding RQ (c), the most perceived principal critical factors from instructors' perspectives are System Quality, Information Quality, Training & Development, Service Quality, Instructor Control, and Learner Control. These continuity critical factors were chosen based on a combination of (1) the calculated responses from the 319 questionnaire respondents and (2) the most commonly identified and discussed continuity critical factors with the interview participants. Additionally, through the interviews conducted with the 21 instructors, Learner Engagement was identified as another important influential continuity critical factor, which is cultural in nature.

Therefore, by answering these research questions in depth, this research study has fulfilled its purpose of gaining an in-depth understanding of instructors' intentions to continually teach their BL courses, and use the associated LMS, and identifying the most influential critical factors from instructors' perspectives which ultimately affect their BL continuity decisions.

## Chapter 9: Conclusion

This conclusion chapter will provide a summary of the key research findings and the academic contributions made as a result. This chapter will also provide this study's limitations, recommendations, and suggestions for future research.

### 9.1 Summary of Key Research Findings

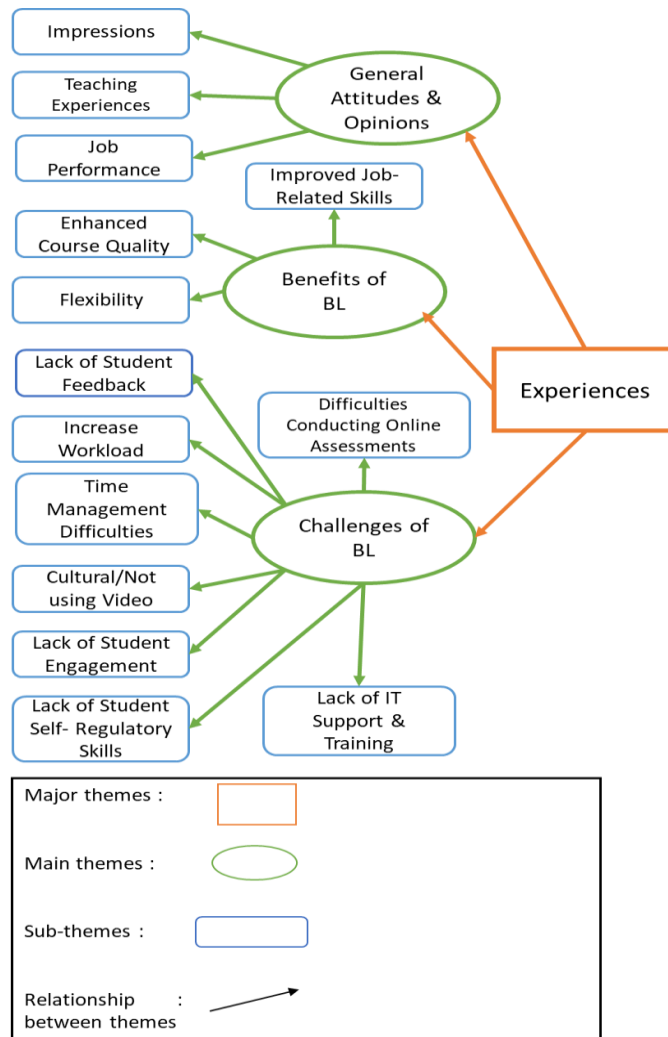
This section will provide a summarized response to this study's research questions.

RQ (a) What are instructors' experiences regarding their existing blended learning courses?

My core findings showed that the majority of instructors have positive experiences teaching their current BL courses and using the associated LMS. This was deduced as a result of both the quantitative and qualitative findings.

The quantitative findings showed that most of the instructors have positive attitudes towards the use of BL as a teaching methodology. Their attitudes were primarily constructed from the results of the four effectiveness measures: perceived ease of use, perceived usefulness, system use, and satisfaction. As previously outlined in section 5.4, the data showed that 67.7% of instructors believed that teaching a BL course and using the associated LMS was useful, 77.7% believed that it was easy to use, 86.3% use the LMS to support their BL courses, and 74.4% were satisfied with their overall experiences. The findings also showed that 70.4% of instructors felt that their overall experience was better than what they had anticipated and 80.3% would encourage others to teach BL courses.

To deepen my understanding of instructors' experiences, my qualitative findings shed light on the instructors' general attitudes and opinions, the benefits experienced, and the challenges faced while teaching their current BL courses. The figure below provides an overview of these findings.



*Figure 9.1 Instructors' Experiences*

The instructors' general attitudes towards BL stemmed from their overall impressions and the impact which BL had on their teaching experiences and job performance. As previously mentioned in sections 6.2.2 and 6.2.3, half of them believed that teaching a BL course had enriched their teaching experiences and allowed them to improve their technological and pedagogical skills. While most believed that using BL had improved their overall job performance due to their new working conditions, which made them feel more relaxed and energetic, as well as feeling self-motivated to create new engaging digital course content.

The qualitative findings also showed that the key benefits experienced included: flexibility, enhanced course quality, and improved job-related skills. As previously outlined

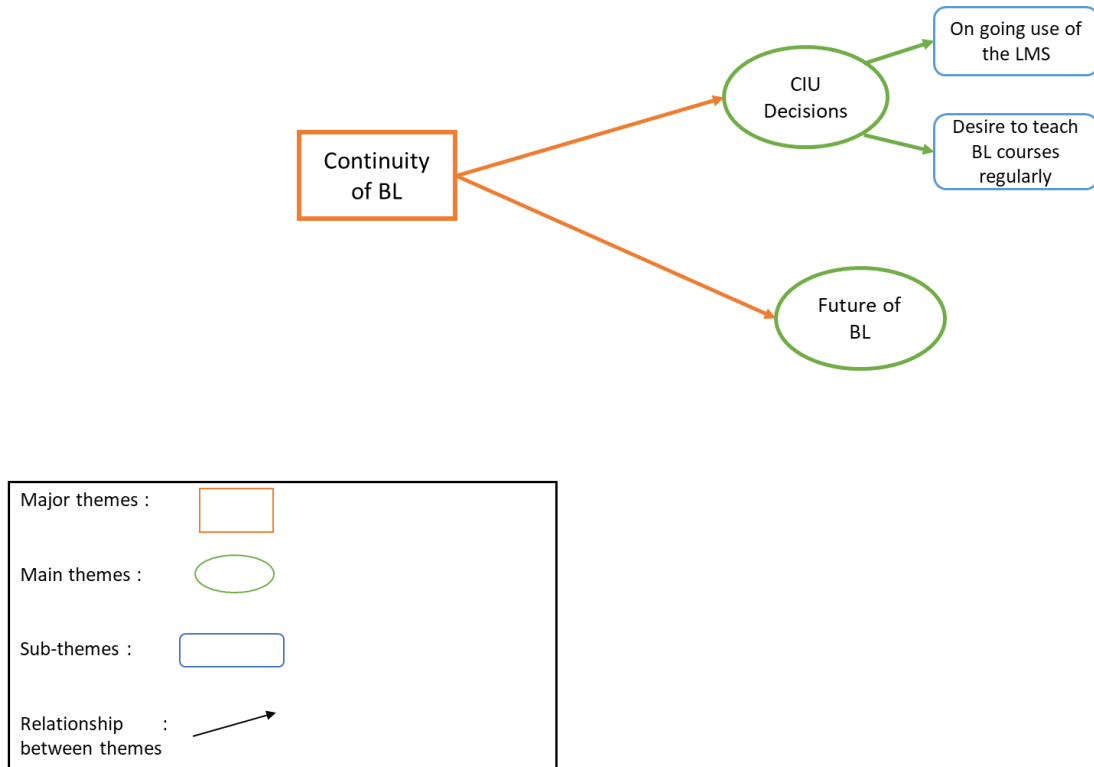
in section 6.3.1, flexibility was discussed by a majority of the instructors in terms of saving time commuting to the workplace, having a more adaptable schedule, saving costs mainly on transportation, and communicating with students in a flexible manner with the inclusion of online chats, WhatsApp groups, and online office hours. Whilst, the challenges faced included: increase workload, difficulties with time management, lack of student feedback, complications with conducting online assessments, and insufficient IT support and training. Other challenges faced, which the instructors' acknowledged to be cultural in nature, included the lack of student self-regulatory skills, students not using video functions during online class sessions, and the lack of student engagement. The cultural challenges, in particular lack of student engagement, had been discussed most by the instructors as they had re-iterated its importance in achieving BL success. The lack of student engagement, as previously mentioned in section 6.4.4, was discussed in terms of their students disinterest particularly within the online classes and how the current BL structure adopted, which relied heavily on online teaching, was perceived to have played a role in their students' lack of participation.

RQ (b) What are instructors' intentions to continue using blended learning?

My core findings showed that the majority of instructors have an intention to continue to teach their BL courses and use the associated LMS. This was deduced as a result of both the quantitative and qualitative findings.

The quantitative findings, presented in section 5.5, showed that a majority, 82.08%, of instructors expressed their intentions to continue to teach their BL courses and use the associated LMS. Specifically, 91.33% of instructors chose favorably in terms of CIU LMS compared to 76.33% who chose favorably in terms of CIU BL. The quantitative findings also showed that those teaching non-STEM subjects provided greater CIU decisions. The same is true for those with previous DL teaching experience.

Deepening on this, the qualitative findings provided context in terms of the reasons behind their CIU LMS and CIU BL decisions. An overview of these findings are presented in the below figure.



*Figure 9.2 Continuity of BL*

In terms of CIU LMS, the instructors had emphasized that their satisfaction with the current LMS being used was one of the greatest driving forces towards their favorable decisions. As previously mentioned in section 7.1.1.1, there was an emphasis on system quality, in terms of its functionality, interactivity, performance, and integration possibilities, and the quality of information produced by the system. Other favorable decisions were related towards the LMS meeting their basic teaching requirements and their preference for the LMS currently being used compared to others used in the past. However, there was a minority of instructors' who had expressed unfavorable CIU LMS decisions, which were predominantly related to the LMS not being useful enough, its quality, and their overall dissatisfaction.

Whilst, in terms of CIU BL, the instructors' favorable decisions had generally stemmed from their overall positive experiences and the benefits reaped as a result of its adoption. However, as previously outlined in section 7.1.1.2, there were several conditions to their CIU decisions which predominantly related to re-structuring their course and adopting a different blend type, exclusively teaching theoretical BL courses and not practical ones, and providing BL courses only at senior levels. On the contrary, other instructors had provided unfavorable CIU BL decisions which was related towards their overall negative experiences and dissatisfaction, their view that BL success could never be achieved (predominantly a result of the nature of their students who lack the necessary self-regulatory skills and level of engagement), and their own personal convictions that BL could never be superior than their traditional F2F courses.

However, irrelevant of the instructors' CIU BL decisions, they commonly expressed positivity in terms of future implementation of BL courses within their HEIs. As previously outlined in section 7.1.2, they were adamant that future implementation of BL courses could be extremely beneficial to promote HEI competitiveness and student attraction, allow for educational advancement, and offer flexible learning opportunities for students. Furthermore, the instructors had commonly discussed enhancements which they viewed as essential to ensure BL success and improve their level of satisfaction. The enhancements identified, presented in section 6.5, included: technological improvements, reduce class sizes, course re-design, improve course material, provide further training, and reduce the number of online student assessments. Thus, the implementation of these enhancements may have an impact on instructors future CIU decisions, particularly that some enhancements were similar to the reasons given for their continuity decisions.

RQ (c) Which critical factors are most influential, from instructors' perceptions, to continue to teach their courses using blended learning in actuality?

My core findings have identified seven critical factors as most principal towards instructors' BL continuity decisions. This was deduced as a result of both the quantitative and qualitative findings.



The quantitative findings, previously presented in section 5.3.6, showed that the highest ranked perceived principal critical factors which impact instructors' BL continuity decisions include: System Quality, Information Quality, Training & Development, Service Quality, and Instructor Control. Thus, indicating that these are found to be most principal towards instructors' CIU decisions. Other principal critical factors include: Learner Control, Course Flexibility, Organizational Support, Instructor Teaching & Learning Style, and Assessment & Feedback.

Building on this, the qualitative findings presented and explained the relationship between a number of identified continuity critical factors on instructors' CIU decisions. The figure below, Figure 9.3, depicts a summary of these findings.

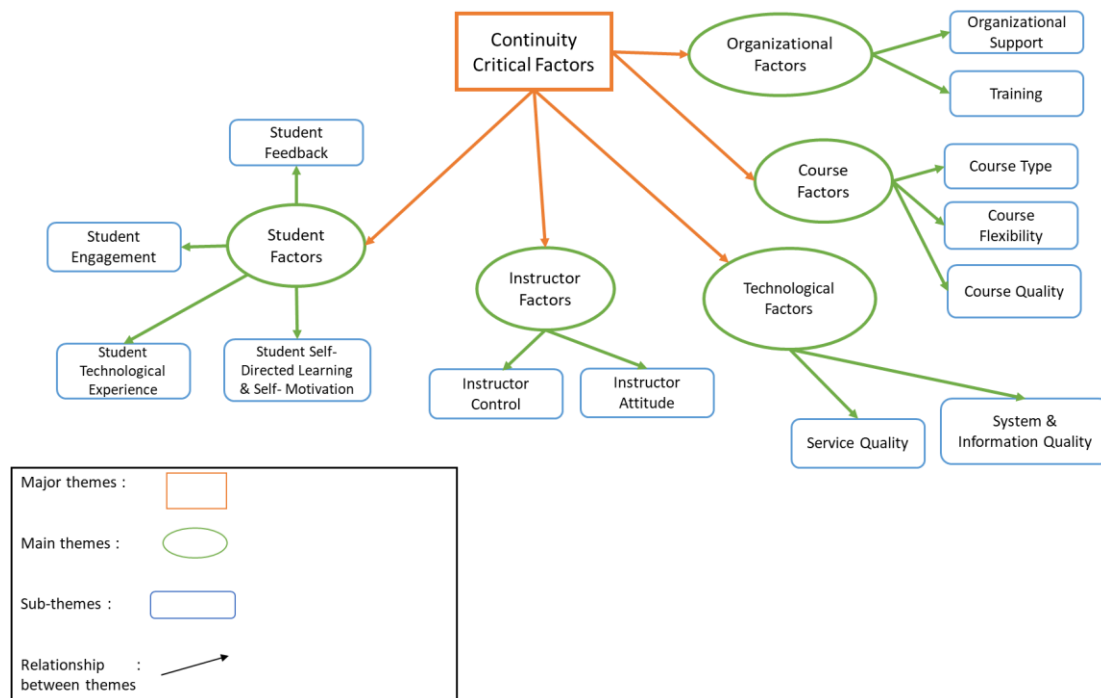


Figure 9.3 Continuity Critical Factors

Most interviewed instructors had identified particularly Instructor Control, System Quality, Information Quality, Learner Control, and Learner Engagement as the most principal critical factors which impact their CIU decisions. Learner Engagement was not a factor identified

from the literature review conducted and presented in Chapter 3 and can thus be labelled as a cultural continuity critical factor, as it stems from the nature of students who study at HEIs in the UAE. As previously mentioned in section 7.2.3.2, the instructors believe that Learner Engagement is essential towards their CIU decisions as it has a direct impact on students' learning capabilities, and that the lack of it can also influence instructors' own motivation to teach. Even instructors who had not dealt with student engagement challenges themselves believed that if the necessary engagement is not present among their students then this factor would definitely impact their future CIU decisions. More so, the instructors had also discussed how the other factors presented in Figure 9.3 were influential to a certain degree, and thus were not considered as principal.

Thus, due to the combination of being ranked the highest within the results of the questionnaire, presented in section 5.3.6, and being discussed the most by the interviewed instructors, outlined in section 7.2, seven factors were identified as most principal towards instructors' BL continuity decisions. These factors include: System Quality, Information Quality, Training & Development, Service Quality, Instructor Control, Learner Control, and Learner Engagement. Also, it is important to acknowledge that the instructors had explained that their continuity decisions were a result of a combination of the principal continuity critical factors and not one on its own. However, they had elucidated that the factors related to the students were seen as most principal towards their CIU decisions. This was because the instructors commonly explained how the main purpose of their profession is to teach students and thus, if those factors were not present then their students could not effectively learn which would lead to an unsuccessful course outcome and make them choose to no longer continue to teach their BL courses in the future.

RQ: What influences instructors' intention to continue using blended learning in their courses, within HEIs in the UAE, in the future?

There are several aspects which influence instructors' intentions to continue using BL in their courses in the future and are a combination of what have been discussed within

RQs (a), (b), and (c). The figure below, Figure 9.4, depicts an overview summary of this study's core findings.

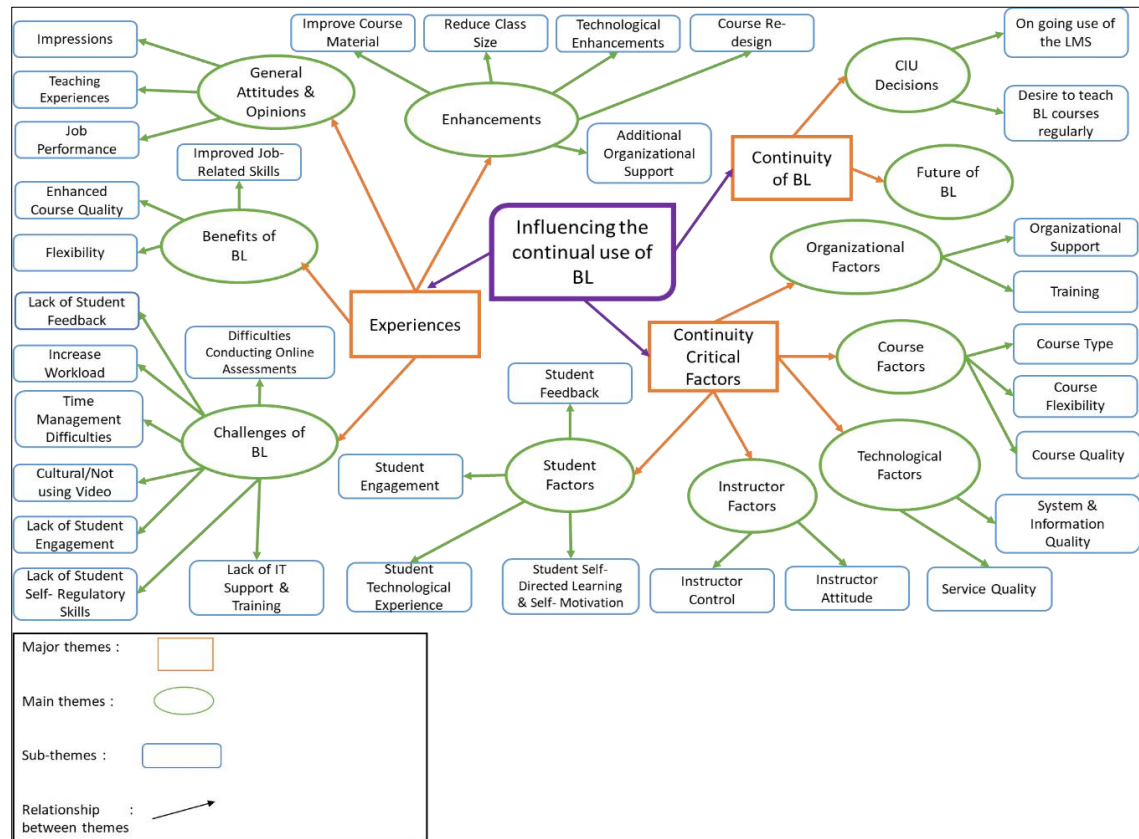


Figure 9.4 Influencing the Continual Use of BL

The main aspects, depicted in Figure 9.4, predominantly revolve around the accumulation of (1) their overall experiences as well as their level of satisfaction, (2) their BL continuity decisions, the conditions and reasonings behind their decisions, and the ultimate goal of achieving BL success and (3) the most perceived principal continuity critical factors.

Firstly, when examining instructors' perspectives, the findings of this study showed that the instructors' overall experiences and level of satisfaction had fueled their BL continuity decisions. This relationship was made clear by the interviewed instructors, as many who were unsatisfied with teaching BL courses and had negative attitudes towards BL had also provided unfavorable continuity decisions. While, the contrary was also true, as a number of those who had described positive experiences and were satisfied had provided

favorable CIU BL decisions. Additionally, the benefits experienced but more importantly the challenges faced had played an important role in their overall attitudes towards BL, as many interviewed instructors had mixed experiences as a result of the varying disadvantages experienced. Research has also shown that instructor attitude may contribute towards BL continuity and thus, when understanding instructors' future BL continuity decisions, an emphasis on their current experiences and level of satisfaction is necessary.

Secondly, the instructors' CIU decisions and more importantly, the conditions set for favorable decisions and reasons for unfavorable ones, are essential predictors for future BL continuity. The conditions and reasons identified by this study were predominately related to blend type, course type, course year, and the nature of students, which were also often related to the ultimate goal of achieving BL success. Instructors viewed BL success predominantly in terms of providing a similar or better-quality BL course compared to those exclusively F2F and students learning capabilities especially being able to grasp the course material when taught online. Thus, the instructors often expressed that if the final goal of BL success could not be achieved, then they would no longer choose to teach their BL courses in the future. This study also identified several enhancements which were seen as necessary to improve the quality of their BL courses. The implementation of these enhancements, within their respective HEIs, can play a role in impacting future CIU BL decisions, as certain enhancements were seen as essential and were mirrored within the conditions set for future BL decisions.

Thirdly, the perceived principal continuity critical factors identified in this study is another important component which influences instructors to continue to use BL in their courses in the future. This relationship was made clear as instructors had expressed how if a combination of such factors were not present then they would be less likely to continue to teach BL courses in the future. More so, certain factors such as Learner Control, Instructor Control, and Learner Engagement; were found to be essential components which directly impacts the capability of ensuring that BL success could be achieved. This re-emphasizes the importance of BL success on instructors' CIU decisions. Thus, addressing the identified

principal continuity critical factors would be essential in improving instructors' future CIU decisions.

## 9.2 Contributions

By conducting this research study, several contributions to the body of literature have been made. The figure below, Figure 9.5, depicts a summary of the contributions which will be discussed within this section.

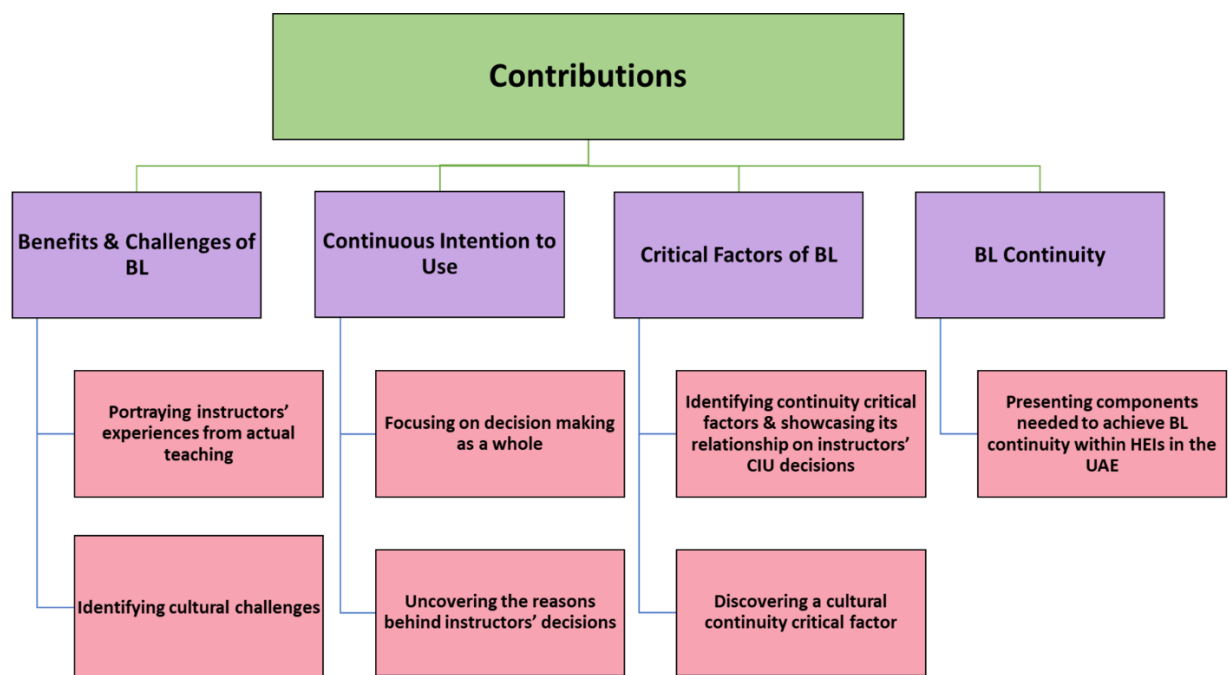


Figure 9.5 Summary of Contributions

### Benefits and Challenges of BL

My contribution to the literature on benefits and challenges of BL is *portraying instructors' experiences from actual teaching*. By focusing on the instructors' perspectives, this thesis distinguishes itself from the majority of existing BL research which predominantly examines students' experiences. The focus on students' perspective is often reflected in the current literature as the benefits and challenges of BL are mainly portrayed as a result of students' learning experiences and not as a result of actual teaching (Stevensen et al., 2022). Thus, by adopting this under researched view, this thesis has been able to enrich the current

BL literature by portraying instructors' perspectives, how BL may have impacted their teaching experiences and job performance, which are both insufficiently researched by scholars (McLean, 2006), and identified various benefits and challenges as a result of actual teaching. Thus, this contribution is valuable as it helps decrease the lack of available BL research and emphasizes the need for further research to be conducted which aims to identify further benefits and challenges from instructors teaching experiences within varying cultural contexts.

Another contribution to the related literature is *identifying cultural challenges*. As previously mentioned in section 3.2, there is a lack of cultural BL research which aims to showcase varying cultural benefits and challenges of teaching BL courses within varying countries. More so, as previously outlined in section 1.5, there is a scarcity of research which focuses on the implementation of BL within the Arab region, specifically in the UAE. Thus, this research study has been able to address such shortcomings particularly by identifying certain cultural challenges within the UAE, which were not commonly presented within the existing BL literature. The findings of this thesis showcase that instructors had asserted that certain challenges such as students not using video functions during online classes, reduced student engagement, and lack of student self-regulatory skills were cultural limitations of teaching their BL courses, as they were a result of the nature of students who study at HEIs in the UAE. This is contrary to the bulk of BL research which often presents an increase in student engagement (Anthonysamy, 2020) and greater self-regulatory skills among students (Lai et al., 2018) as a result of BL implementation. Thus, this contribution is valuable as it highlights the importance of focusing on cultural contexts within BL research and the need for further culture-based BL research to be conducted; as culture can play an important role in understanding instructors' perspectives related to technological learning within varying countries. This also has implications for future research within other GCC countries which share similar cultures, nature of students, and follow similar HEIs' systems and policies to that of the UAE.

## Continuous Intention to Use

My contribution to the literature on CIU is *focusing on decision making as a whole*. The originality of my contribution stems from the understanding of instructors' overall continuity decisions in terms of using the associated LMS and teaching a BL course. As previously highlighted in section 3.4, a great deal of CIU research has focused on CIU LMS in particular and insufficiently study CIU BL decisions as a whole teaching modality (Al-Marroof et al., 2021b). This study has addressed this limitation by focusing on decision making as a whole and paying particular attention to instructors' CU BL decisions. The findings of this study, presented in section 5.5.1, had shown that a greater percentage of instructors had provided favorable CIU LMS decisions than those providing favorable CIU BL decisions. Thus, this contribution is vital as it underscores the importance of studying CIU BL as a whole teaching modality and not merely CIU LMS. As BL can be a transformative approach and is not limited towards only adopting technology within a F2F course (Discroll, 2002); thus, when studying instructors CIU decisions, their decisions cannot also be limited towards technology adoption and use.

Another contribution to the related literature is *uncovering the reasons behind instructors' decisions*. As previously outlined in section 3.4, the current literature emphasizes on portraying CIU decisions through the use of quantitative research while insufficiently using rich qualitative data to explain the reasons for these decisions. Additionally, the bulk of CIU research tend to adopt the student perspective while paying less attention to that of the instructors. These limitations in the literature often translate into insufficient contextual information regarding instructors' CIU BL decisions. Thus, this study has addressed these shortcomings by showcasing the reasons behind instructors CIU decisions. The findings of this study, presented in section 7.1.1, showcased that these reasons were predominantly a result of instructors' own experiences and overall attitude towards BL, their opinions surrounding the quality of their BL courses compared to their F2F ones which were impacted greatly by the blend type adopted, and their students' abilities to effectively learn and excel using a different teaching methodology as a result of their lack of self-regulatory skills and engagement. Therefore, this contribution is central as it provides rich contextual information and highlights the importance of comprehending varying conditions and reasons behind

instructors' CIU decisions, as certain conditions if not met, could have implications on future CIU decisions.

### Critical Factors of BL

My contribution to the literature on the critical factors of BL is *identifying continuity critical factors and showcasing its relationship on instructors' CIU decisions*. This contribution stems from the combination of adopting the unique perspective of the instructor, identifying the critical factors which are perceived to be most principal in impacting instructors' CIU decisions, and explaining the relationship of these critical factors on their decisions. As previously mentioned in section 3.3, the critical factors identified in the reviewed literature are portrayed as if they are applicable within all cultural contexts even though they have been identified mostly based upon research studies conducted in North America and Europe. Also, the critical factors identified in literature do not sufficiently address the nature of students who take these BL courses, nor does it account for changes within the learning environment. More so, as previously outlined in section 3.5, a great deal of research study CIU LMS, and as a result, scholars have focused on examining the critical factors related to the system while paying less attention to those within varying other dimensions.

Thus, this study has addressed these shortcomings by re-examining the critical factors in literature within varying dimensions and identifying those which are perceived to be most principal in impacting instructors CIU decisions. For example, the findings of this study has shown that Learner Control, Instructor Control, and Training and Development were found to be ranked amongst the top perceived principal continuity critical factors. However, the existing literature reviewed, presented in section 3.4, had not identified these factors to directly influence CIU BL decisions. Thus, this contribution is vital as it demonstrates that the critical factors need to be re-evaluated to take into consideration cultural contexts, nature of students, and changes in the learning environment.

Additionally, this contribution highlights the importance of understanding the relationship between these factors on CIU decisions, as there is insufficient qualitative



research which explains such relationships (Al-Marroof et al., 2021a). For example, the findings of this study has shown that Learner Control was identified as a principal continuity critical factor due to the nature of students who study at HEIs in the UAE. Students lack of self-regulatory skills, such as independent learning and self-motivation, placed an emphasis on this particular factor. The instructors believed that these skills were essential in achieving BL success and that their students' ability to effectively learn in a BL environment, as well as they do in a F2F setting, is imperative towards their CIU decisions.

Another contribution to the literature on the critical factors of BL is *discovering a cultural continuity critical factor*. The findings of this study has identified Learner Engagement as a cultural critical factor which impacts instructors BL continuity decisions. This factor was not identified as one of the critical factors of BL during the literature review process and presented in section 3.3. The findings of this study showed the importance of this particular factor on instructors' CIU decisions due to the nature of students who study at HEIs in the UAE. As previously discussed in section 8.3, the instructors believed that insufficient student interest and participation could translate into ineffective learning and an unsuccessful course outcome which would greatly impact their CIU decisions. Thus, this contribution is valuable as it provides evidence that instructors' perspectives may in fact be impacted by the nature of students who take their BL courses and re-highlights the importance of focusing on cultural contexts, as there is insufficient culture-based research which aims to identify culture critical factors within GCC countries.

### BL Continuity

My contribution to the literature related to BL continuity is *presenting components needed to achieve BL continuity within HEIs in the UAE*. This contribution has been achieved by focusing on several reasons for instructors CIU decisions, identifying varying enhancements, which are viewed as necessary to improve the quality of future BL courses, and identifying the principal continuity critical factors. As previously outlined in section 3.5, the current BL continuity literature is quite redundant and further up to date research which looks at components which are needed to achieve BL continuity is required, particularly within the UAE context. The findings of this study showed that certain enhancements such

as for example limiting class sizes, reducing online class time, and student training regarding self-regulatory skills, were impactful towards BL continuity. However, these were not clearly portrayed within the BL continuity literature, presented in section 3.5. Also, the identification of principal critical factors are helpful in further understanding important elements which may impact BL continuity, as not all factors identified in this study, such as for example Learner Engagement, were found in literature to be impactful towards BL continuity. Thus, this contribution is valuable as it helps enhance the current BL literature and emphasizes the need for further research to be conducted within varying cultural contexts.

### **9.3 Limitations of the Study**

This section will present the limitations from conducting this study.

As this study is the first which looks at instructors' CIU BL decisions and the principal continuity critical factors within HEIs in the UAE, I had decided to involve BL courses within varying course subjects. This was a decision made to try and gain a wider breath of knowledge in terms of identifying cultural challenges, enhancements needed, and showcasing reasons behind instructors CIU decisions. However, in doing so, I am aware that this may have affected the way certain instructors may have perceived certain critical factors to be more principal towards their continuity decisions than others. Yet, I do not believe that this greatly impacted my findings as during the interview process, I had chosen participants who were teaching 20 various course subjects and a majority had identified common critical factors to be most principal than others. However, to try and deal with this limitation I did ensure that when reporting my findings, I acknowledged how certain conclusions may have been a result of the type of course adopted.

I did also decide to have no pre-condition related to instructors' previous DL teaching experience. I deliberately chose not to do so as I was aware of the educational situation in the UAE concerning the scarce implementation of various DL courses in HEIs prior to covid-19. Thus, I believed that including various instructors with different DL teaching experiences would be best to gather a wider breath of knowledge and increase this study's sample size.

However, I am aware that by not having this pre-condition, this could have altered some of my findings in terms of CIU decisions and the identified principal continuity critical factors. To deal with this limitation, I did ensure to include a question in the questionnaire regarding previous DL teaching experience and the same was done with those who took part in the follow-up interviews. In doing so, I was able to shed light on the differences in responses and I did ensure that when discussing my findings I did provide sufficient context with how instructors' previous DL teaching experience could have played a role in their overall BL experiences and CIU decisions.

Moreover, a comparative analysis across varying disciplines or institutional types was not attempted, as this was not the purpose of this research study. I did in fact choose to showcase how specifically CIU decisions vary based on STEM and non-STEM subjects. However, I did not include institution types, as I was aware that all HEIs in the UAE follow the same CAA regulations, as previously mentioned in section 2.2.2, and thus, the implementation of BL is done in a similar manner. However, to attempt to deal with this limitation, I clarified when institution type could have played a role in instructors experiences, yet this was not a common occurrence. Thus, due to this limitation, readers should not over generalize this study's findings.

Furthermore, as the focus of this research entails the examination of instructors' perspectives related to several critical factors, technical factors related to the system implementation and institutional factors related to planning and resource management were not included. These types of factors were excluded as they do not relate to the decision-making process of instructors and thus, including these types of factors are beyond the scope of my research and could have altered my research design. Further research which investigate those different factors could be conducted by other scholars.

Lastly, BL has been defined differently over the years by many scholars and often literature has used terms such as e-learning, DL and BL interchangeably. Thus, there is a possibility that the term BL may be understood differently by the varying instructors who took part in this study. This limitation was out of my control; however, I did attempt to deal

with it during the beginning of the interview process by re-emphasizing the definition of BL which was adopted by this study. I also do not believe that this limitation had greatly altered my findings, as during the time when the data was collected, most BL courses within HEIs in the UAE followed a similar blend type.

## **9.4 Recommendations**

This section will provide recommendations mainly to senior managers, at HEIs in the UAE, with the inspiration of improving future BL courses. As previously mentioned in section 4.2, this research study has adopted the pragmatic position and thus, the recommendations which will be provided are closely aligned with adopted pragmatic views, described by Morgan (2014):

1. “Actions cannot be separated from the situations and contexts in which they occur” (p. 26);
2. “actions are linked to consequences in ways that are open to change” (p. 26); and
3. “actions depend on worldviews that are socially shared sets of beliefs” (p. 27).

The recommendations, discussed within this section, have been constructed from the instructors’ relative and contingent realities. Irrelevant of their opinions, attitudes, and continuous intentions, it was made clear that many encouraged the implementation of further BL courses and programs across HEIs in the future due to their acknowledgement of its benefits. However, further research and enhancements, to enable the creation of a better learning environment and improve the outcome of the BL course, was expressed. Thus, the recommendations have been derived from the findings of this study related to the instructors’ suggested enhancements. As previously outlined in section 2.2.2, the instructors were teaching varying BL course subjects, yet had adopted similar blend types at the time of conducting this study. Thus, their unique and shared experiences, within the context of HEIs in the UAE, can influence particular actions which they see as necessary to solve problems encountered within their BL courses. However, the suggested enhancements can be viewed as tentative solutions to the challenges encountered while teaching their current BL courses and they may be revised in the future as circumstances change.

The recommendations are as follows:

1. It is recommended that deans of colleges encourage a more collaborative approach to re-designing the course material among instructors which may enable the creation of engaging and interesting digital course material as well as help to find solutions to commonly faced challenges especially improving the level of student engagement. This would be deemed particularly important to the UAE context, as previously outlined in section 2.3, Arab learners, who study within HEIs in the UAE, are found to have a lack of engagement and participation within their classes. Therefore, this recommendation arose from certain enhancements, presented within section 6.5.1, within the theme *Improve Course Material*. Thus, this recommendation relates particularly to re-creating more interactive digital course content. For example, the instructors expressed the need to re-develop and improve the current course content through the creation of engaging digital material, such as the inclusion of more visual and graphics rather than the traditional static slides, which is perceived to be more suitable for the inclusion of the online environment. This was also viewed as essential to help negate the challenges associated with the lack of student engagement, which was presented in section 6.4.4. Also, it is recommended that HEIs ensure that there is sufficient availability of digital books for specific BL courses being taught. This recommendation arose from specific situations where certain instructors discussed the insufficient availability of digital books within their HEIs and the need for senior managers to ensure that they would be purchased for the future. These recommendations are also viewed as essential to improve the quality of BL courses in the future.
2. It is advised that those involved with curriculum design should spend adequate time researching and attempting different ways of creating a type of blend to suit different types of courses. This recommendation arose from a specific enhancement made by Catherine who stressed the need for further research to be conducted, within her HEI, to better understand which blend type should be adopted to ensure that BL success could be achieved. It is also advised that instructors are given the opportunity to take

part in re-structuring their own BL courses and ensuring that the type of blend is suitable for the course type and the nature of the students who are enrolled in such courses. This recommendation has been derived from enhancements, presented in sections 6.5.2 and 6.5.3, corresponding to the themes *Reduce Class Size* and *Course Re-design*. Thus, this recommendation primarily relates to changing the course structure. For example, instructors were adamant that they would need to change the current blend type of their courses to be more suitable with the nature of the course being taught. Instructors also expressed their ability to best understand how to structure their courses in a manner in which the students' learning experience would not be impacted by the mode of delivery and would ensure that a BL course of similar quality, as those taught in F2F, would be provided to their students. It was also suggested that the number of online class sessions should be reduced and the number of students attending online sessions should be limited to ensure that instructors are able to have sufficient control over their classrooms and facilitate in class discussions. Thus, it is advisable that a more collaborative approach, where instructors are at the focal point, is used in relation to creating better-quality BL courses. Allowing instructors to take control of how their courses are structured in terms of the blend type adopted, the duration of the online class times, and the number of students who take part in the online sessions, can help negate the challenges faced and provide a better learning environment where both instructors and students are satisfied. Thus, incorporating this type of approach may motivate instructors to willingly teach more BL courses in the future which can facilitate BL continuity within HEIs in the UAE. Hence, this recommendation would be deemed particularly important to the UAE context, as previously outlined in section 2.4, the UAE government has announced various initiatives which further emphasize their focus on the implementation and development of BL within HEIs and hence, focusing on creating better quality BL courses to ensure BL success which can improve continuity is essential.

3. Collaboration between senior managers, IT staff, and instructors would be needed to fulfil instructors' requirements of different technological solutions and further enhancements to the LMS used to support their BL courses. This recommendation

arose from different enhancements, discussed in section 6.5.4, within the theme *Technological Enhancement*. Thus, this recommendation primarily relates to improving the quality of the LMS and associated software being used. For example, instructors had stressed the need to improve the video capabilities being used to support their online classes, enhance the features of the LMS and various software to facilitate in class group discussions, and acquire and implement various software to meet the needs of different course subjects. More so, certain instructors had spoken of the need to find various technological solutions which could help capture student feedback and further reduce the challenges faced when conducting online assessments. Thus, instructors should be given the opportunity to discuss with senior managers and IT staff regarding specific technological improvements which are needed for their specific course subjects. Taking these enhancements into consideration can help negate several challenges faced, create a better learning environment, and ultimately achieve BL success.

4. Extensive IT support and continuous professional development programs should be provided consistently to all instructors to aid with the understanding of how to use the LMS and all of its capabilities to support with teaching their BL courses. This will also provide the instructors with the necessary training and help with using accompanying software needed to teach their BL courses. As many BL courses, especially non-STEM subjects, could adopt a blend type which relies heavily on online teaching; thus, the assistance of IT support staff throughout the semester, beyond the normal pre-semester training, is essential to ensure that instructors have the necessary control over their BL courses. This recommendation was derived from the challenges, discussed within section 6.4.8, within the theme *Lack of IT Support and Training*. For example, Shannon had discussed her own experience with the IT staff and relayed how she felt that she needed continuous support from the IT department after the initial training, which was received, as she had initially felt unconfident with her IT skills. Other instructors had commonly discussed situations related to insufficient IT support available and as a result had to ask their colleagues for help or struggle to personally find technological solutions themselves. Due to

such, they expressed the need for the IT department to provide further training on how to use the LMS and associated software which would help improve their digital skills and gain sufficient control over the learning environment. This recommendation also arose from instructors' discussions related to the need for further continuous professional development opportunities, discussed in section 6.5.5, corresponding to the theme *Training*. Thus, this recommendation particularly relates to creating engaging digital course content and videos which students could view before their F2F classes. There was also a belief that their HEIs could provide them with learning opportunities to further enhance their teaching skills within the online environment. Thus, the IT department and those in charge of providing continuous professional development opportunities should have further discussions with instructors teaching BL courses, to further understand their needs and provide further trainings to help improve both their technological and online teaching skills.

5. Training should be provided to students particularly in terms of how to gain self-regulatory skills. This recommendation would be deemed particularly important within the UAE context, as previously outlined in section 2.3, Arab learners studying in HEIs in the UAE are found to lack the necessary self-regulatory skills needed to excel in a BL environment. Thus, this recommendation was derived from the challenges endured and enhancements identified, presented in section 6.5.5, corresponding to the theme *Training*. Thus, this recommendation particularly relates to student preparation. For example, Grace discussed the need for students to learn how to become effective online learners and understand the expectations of learning within an online environment rather than expect students to know how when joining university. Thus, HEIs in the UAE should particularly emphasize on providing first year students with training on how to gain self-regulatory skills related to independent learning and self- motivation as these are essential to the successfulness of a BL course.
6. A re-evaluation of the use of virtual examinations, where both instructors and students are not in the same physical space, ought to be looked at by senior managers. This recommendation arose from enhancements, discussed in section 6.5.6, within



the theme *Online Student Assessment*. The instructors had described difficulties in conducting these types of online assessments and believed that the use of common invigilation software were insufficient to prevent cheating. This had translated into the instructors' beliefs that no more virtual examinations of this kind should be conducted in the future, in particular the midterms and finals. Thus, this would warrant a serious look by senior managers to evaluate the effectiveness of virtual assessments moving forward.

7. A recommendation to the MOE is necessary regarding accreditation of BL programs. Informing instructors regarding the accreditation possibilities and opportunities of BL programs which include many BL courses is necessary for instructors to understand its legitimacy; particularly, as discussed in section 2.2.2, the MOE regulates all HEIs and must first accredit all programs including BL ones. Hence, this particular recommendation arose from specific situations, previously mentioned in section 7.1.2, corresponding to the theme *Future of BL*, where instructors expressed concern for the legitimacy of providing future BL courses. They had indicated that prior to COVID-19, the mandate regarding BL programs from the MOE, was that such programs were not accredited in the UAE. Thus, the implementation of a great number of BL courses within HEIs have made instructors question the opportunity of accreditation and its validity, which in turn had impacted their attitudes towards teaching BL courses. Thus, by informing instructors of possible changes, it can help ease their concerns and have a more positive attitude towards using BL.

## **9.5 Future Research**

There are varying future research opportunities related to BL within HEIs in the UAE. Primarily, further research related to instructors' perspectives should be made in relation to specific course types or specific departments. This will enable the identification of further enhancements needed specific to course types. Also, more comparison studies related to CIU BL courses should be made, where the sample size related to each course type is proportional, to enable a sounder evaluation.

Furthermore, a great deal of research related to which blend type would work best concerning specific course types should be conducted. This type of future research is essential in order to ensure less challenges are faced, and BL courses are more successful.

Moreover, further research related to BL in private and public HEIs should be made which aim to segregate the results and provide a cross comparison. As discussed, some of the challenges and enhancements found were related to the nature of the students, however, the proportion of students vary within the different types of HEIs. Thus, further research which aims to compare results found in public vs private HEIs may be helpful to understand if instructors' perspectives related to their BL courses and their continual decisions could in fact be related to the type of institution.

Lastly, further research related to continuity of BL in the UAE as well as the critical factors of BL, which should include Learner Engagement, from students' perspectives should be further conducted. This will add to the limited research available to continuously understand the impacts of the successfulness of BL, as BL is now a focal point of the advancement of education in the UAE.

## Appendix A

### Questionnaire

Part 1: Please answer the following questions

1. Gender Male Female
  
2. Professional Title Lecturer/Instructor Assistant Professor  
Associate Professor Professor
  
3. Teaching Department STEM Non-STEM  
(Science, Technology, Engineering & Math)
  
4. Do you have previous experience teaching a distance learning course? Yes No

Part 2: Please rate the following factors based on their importance in influencing your decision to continually teach a blended learning course and continually use the associated learning management system.

Critical Factors	Not Important (1)	Slightly Important (2)	Moderately Important (3)	Very Important (4)	Extremely Important (5)
<b>Student Factors (Dimension #1)</b>					
Students find working with a computer difficult					
Students feel nervous working with the computer					
Students have the necessary skills to use the online system efficiently					
Students have the necessary skills to use the online communication tools					
Students can use the system to complete the tasks required of them					
Students have the necessary skills to use the software programs needed for the course					
Students have the necessary skills to learn independently					
Students have the necessary skills to properly manage their time					
Students are self-motivated					
Students have the ability to experiment with the new system					

Students have the ability to adopt to new information technologies independently of the experience of others					
<b>Instructor Factors (Dimension #2)</b>					
I can use an interactive teaching style					
I can encourage student interaction					
I can use innovative teaching approaches (videos, animations, documentaries, student learning communities, etc.)					
I can provide learners with a range of teaching approaches that allow them to choose one that suits their learning goals, or that can be personalized to their learning needs.					
I have a positive attitude towards using the blended learning course					
I believe the blended course is useful					
I support the use of the learning management system					
I have good control over the use of the learning management system					
I handle the learning management system effectively					
I feel confident uploading course materials					
I feel confident using online communication tools					
I respond to online requests within a timely manner					
I provide feedback regarding assignments/exams on time					
I have been allocated enough time to design my blended learning courses					
My current academic workload still allows me to conduct my own research					
I have been able to work with other instructors to design my blended learning course					
I have been given less workload to focus on teaching and maintaining my blended learning course					
<b>Course Factors (Dimension #3)</b>					
The use of the learning management system has improved the quality of the course					
The study materials provided to learners are of the same quality as the traditional course					
The study materials provided undergo the same quality assurance process					

I prioritize the most important information to help learners learn efficiently					
The added use of the learning management system allows for greater course flexibility					
The added use of the learning management system allows me to finish my work more effectively					
The course content can be accessed anytime and anywhere					
<b>System Factors (Dimension #4)</b>					
The system is reliable					
The system is user-friendly					
The system allows me to upload the course content in multimedia form					
The system allows me to communicate with all my students					
The system is compatible with other Microsoft programs					
The information produced by the system is accurate					
The information provided by the system is complete					
The information produced by the system appears readable, clear, and well formatted					
The system support service is available when needed					
The system support service is reliable					
The system support service is easy to communicate with					
The service developers interact fluently with me to develop my course					
The support service provided is adequate					
I am provided with online assistance					
<b>Organization Factors (Dimension #5)</b>					
Senior management provides me with enough support when teaching blended learning courses					

Senior management implements the use of the system in my course curriculum					
My manager provides me with enough recognition for my hard work					
I am provided with introductory training before the start of the course					
The training I receive helps me understand how to use the online tools					
The training I receive fulfill my specific needs					
I am provided with continuous ongoing specialized training					
I evaluate the learning management system used for online learning					
I evaluate the learners who took the blended learning course					
I evaluate the classroom learning environment					
I evaluate the achievement of the course learning outcomes					
I evaluate the training workshops for the learning management system					
The university provides me with clear feedback regarding my assessments of the learning management system, learner, course, classroom learning environment, and training workshops					

B- Please rate the following statements, regarding your blended learning course, accordingly.

<b>Effectiveness Measures</b>	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
<b>Perceived Usefulness</b>					
Using the system enables me to accomplish more tasks quickly					
Using the system increases my productivity					
Teaching a blended course enhances my teaching effectiveness					
Using online instruction is useful for teaching					

<b>Perceived Ease of Use</b>					
The system is easy to use					
I rarely make errors when using the system					
I find the system to be flexible to interact with					
The e-learning tools are clear and understandable to me					
<b>System Use</b>					
I use the learning management system to communicate with my students					
I use the learning management system to share course information					
I use the learning management system as many occasions as possible for my classes					
I frequently use the management learning system to supplement my teaching					
<b>Satisfaction</b>					
I am satisfied with the performance of the learning management system					
I am pleased with my experience of using the learning management system					
My decision to use the learning management system was a wise one					
I am satisfied teaching a blended learning course					

C- Please answer the following statements, regarding your blended learning course, accordingly:

<b>Continuous Intention to Use LMS &amp; Teach BL Courses</b>	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
I will use the learning management system on a regular basis to supplement my classes in the future				
I will always try to use the learning management system to complete a teaching task whenever it has a useful feature				
My intentions are to continue using the learning management system rather than use traditional teaching activities in classroom				
My experience teaching a blended learning course was better than what I expected.				

I intend to continue teaching blended learning courses in the future				
I would recommend teaching blended learning courses to other instructors				



## Appendix B

### Interview Questions

1. What is your overall impression regarding teaching a blended learning course?
2. What are some of the benefits you have personally experienced when teaching a blended learning course compared to teaching a traditional one? Please provide examples.
3. What are some of the challenges which you may have faced when teaching your blended learning course? Please provide examples.
4. Are there any enhancements you believe that are needed to be made to improve your blended learning course? How so?
5. If it were only up to you, would you continue using the learning management system to aid in teaching your blended learning courses? Why?  
  
If not, what would need to be enhanced to change your decision?
6. If it were only up to you, would you continue teaching your blended course the way it is now? Why?  
  
If not, what changes would need to be made that could change your decision?
7. Out of the critical factors previously discussed, which do you believe impact your decision to continually teach your blended course? and Why?
8. Are there any critical factors which you think are missing from my study that may impact your decision to continually teach your blended course?
9. Do you think your institution should continue offering blended learning courses and perhaps blended learning programs in the future? How come?

## Appendix C

### **Invitation Letter - Questionnaire**

Dear Prospective Survey Participant,

My name is Dina Mohamed.

I am a PHD student at Lancaster University. I am kindly requesting your participation in a doctoral research study that I am conducting titled: Instructors' Perspectives Regarding Their Continual Use of Blended Learning Courses in Higher Education Institutions in the United Arab Emirates. The intention is to understand faculty members' opinions regarding their blended courses as well as factors that affect their intention to continually teach a blended learning course.

The study involves completing basic demographic information and a questionnaire. Participation is completely voluntary, and you may withdraw from the study up to two weeks after you have completed the questionnaire. The study is completely anonymous; therefore, it does not require you to provide your name or any other identifying information. By agreeing to participate in the study, you will be giving your consent for the researcher to include your responses in her data analysis. There will be no individually identifiable information, remarks, comments, or other identification of you as an individual participant. All results will be presented as aggregate, summary data.

If you would like to participate in the study, please click on the survey link. The survey should last no more than 10 minutes. Your participation in the research will be of great importance to gain a deeper understanding related to faculty members' opinions regarding the continual use of blended courses in higher education institutions in the UAE. It will also help further the limited research available in this topic.

Thank you for your time and participation.

Sincerely,

Dina Mohamed, MSc (Hons), Doctoral Student, Lancaster University

## Appendix D

### **Invitation Letter – Interview**

Dear Prospective Interview Participant,

My name is Dina Mohamed.

Thank you for taking part in my research study titled: Instructors' Perspectives Regarding Their Continual Use of Blended Learning Courses in Higher Education Institutions in the United Arab Emirates; and thank you for taking the time to fill out the questionnaire which had been sent in my previous email.

I would like to ask if you would be willing to take part in a follow up interview, which should not take more than 30 minutes of your time.

The interview will aim to further understand some of the responses you have provided in the questionnaire, as well as gather your opinion on certain factors which may affect your decision to continually teach a blended learning course.

Participation is completely voluntary, and you may withdraw from the study up to two weeks after you have attended the interview. If you would like to participate in the study, please find the Participant Information Sheet as well as the Consent Letter, which needs to be signed and emailed back to me.

Please do let me know if you are willing to participate so we can schedule a Zoom meeting for the interview.

Thank you for your time and co-operation.

Sincerely,

Dina Mohamed, MSc (Hons), Doctoral Student, Lancaster University

# Appendix E

## **Participant Information Sheet**

For further information about how Lancaster University processes personal data for research purposes and your data rights please visit our webpage: [www.lancaster.ac.uk/research/data-protection](http://www.lancaster.ac.uk/research/data-protection)

I am a PhD student at Lancaster University, and I would like to invite you to take part in a research study about: Instructors' Perspectives Regarding Their Continual Use of Blended Learning Courses in Higher Education Institutions in the United Arab Emirates.

Please take time to read the following information carefully before you decide whether you wish to take part.

### **What is the study about?**

This study aims to gain a deeper understanding of instructors' perceptions regarding blended learning courses and their intention to continually teach them, within their higher education institutions.

### **Why have I been invited?**

I have approached you because I am trying to understand faculty members' opinions regarding their blended courses as well as factors that affect their intention to continually teach a blended learning course, as well as continually using the learning management system used within the blended course  
I would be very grateful if you would agree to take part in this study.

### **What will I be asked to do if I take part?**

If you decided to take part, this would involve the following: attending a one to one interview and answering semi structured questions which aim understand your opinion concerning continual use of blended courses as well as certain factors that may affect your decision to continually teach a blended course and use the learning management system. The interview should take around 30 minutes.

### **What are the possible benefits from taking part?**

Taking part in this study will allow you to share your opinion regarding the continual use of blended courses in higher education institutions in the UAE. It will also help further the limited research available in this topic.

### **Do I have to take part?**

No. It's completely up to you to decide whether you take part. Your participation is voluntary.

### **What if I change my mind?**

If you change your mind, you are free to withdraw up to 2 weeks after your participation in this study. If you want to withdraw, please let me know, and I will extract any ideas or information (=data) you contributed to the study and destroy them. However, it is difficult and often impossible to take out data from one specific participant when this has already been anonymized or pooled together with other people's data. Therefore, you can only withdraw up to 2 weeks after taking part in the study.

### **What are the possible disadvantages and risks of taking part?**

It is unlikely that there will be any major disadvantages to taking part. However, the interview will take approximately 30 - 60 minutes of your time.

### **Will my data be identifiable?**

After the interview, only I, the researcher conducting this study will have access to the ideas you share with me. However, I may need to share the data with my supervisor.

I will keep all personal information about you (e.g. your name and other information about you that can identify you) confidential, that is I will not share it with others. I will remove any personal information from the written record of your contribution. All reasonable steps will be taken to protect the anonymity of the participants involved in this project.

### **How will we use the information you have shared with us and what will happen to the results of the research study?**

I will use the information you have shared with me only in the following ways:  
I will use it for research purposes only. This will include PhD thesis.  
I may also present the results of my study at academic conferences.

**When writing up the findings from this study, I would like to reproduce some of the views and ideas you shared with me. I will only use anonymized quotes (e.g. from my interview with you), so that although I will use your exact words, all reasonable steps will be taken to protect your anonymity in our publications.**

### **How my data will be stored**

Your data will be stored in encrypted files (that is no-one other than me, the researcher will be able to access them) and on password-protected computers. I will store hard copies of any data securely in locked cabinets in my office. I will keep data that can identify you separately from non-personal information (e.g. your views on a specific topic). In accordance with University guidelines, I will keep the data securely for a minimum of ten years.

### **What if I have a question or concern?**

If you have any queries or if you are unhappy with anything that happens concerning your participation in the study, please contact myself : [d.mohamed@lancaster.ac.uk](mailto:d.mohamed@lancaster.ac.uk).

My supervisor: Dr. Murat Oztok: [m.oztok@lancaster.ac.uk](mailto:m.oztok@lancaster.ac.uk)

This study has been reviewed and approved by the Faculty of Arts and Social Sciences and Lancaster Management School's Research Ethics Committee.

**Thank you for considering your participation in this project.**

## **Appendix F**

### **Consent Form- Questionnaire**

I am a PhD student at Lancaster University, and I would like to invite you to take part in a research study about: Instructors' Perspectives Regarding Their Continual Use of Blended Learning Courses in Higher Education Institutions in the United Arab Emirates.

Please take time to read the following information carefully before you decide whether you wish to take part.

#### **What is the study about?**

This study aims to gain a deeper understanding of instructors' perceptions regarding blended learning courses and their intention to continually teach them, within their higher education institutions.

#### **Why have I been invited?**

I have approached you because I am trying to understand faculty members' opinions regarding their blended courses as well as factors that affect their intention to continually teach a blended learning course, as well as continually using the learning management system used within the blended course

I would be very grateful if you would agree to take part in this study.

#### **What are the possible benefits from taking part?**

Taking part in this study will allow you to share your opinion regarding the continual use of blended courses in higher education institutions in the UAE. It will also help further the limited research available in this topic.

#### **Do I have to take part?**

No. It's completely up to you to decide whether you take part. Your participation is voluntary.

#### **What if I change my mind?**

If you change your mind, you are free to withdraw up to 2 weeks after your participation in this study. If you want to withdraw, please let me know, and I will extract any ideas or information (=data) you contributed to the study and destroy them. However, it is difficult and often impossible to take out data from one specific participant when this has already been anonymized or pooled together with other people's data. Therefore, you can only withdraw up to 2 weeks after taking part in the study.

#### **What are the possible disadvantages and risks of taking part?**

It is unlikely that there will be any major disadvantages to taking part.

### **Will my data be identifiable?**

The researcher conducting this study will have access to the ideas you share with me. However, I may need to share the data with my supervisor.

I will keep all personal information about you (e.g. your name and other information about you that can identify you) confidential, that is I will not share it with others. I will remove any personal information from the written record of your contribution. All reasonable steps will be taken to protect the anonymity of the participants involved in this project.

### **How will we use the information you have shared with us and what will happen to the results of the research study?**

I will use the information you have shared with me only in the following ways:

I will use it for research purposes only. This will include PhD thesis.

I may also present the results of my study at academic conferences.

### **What if I have a question or concern?**

If you have any queries or if you are unhappy with anything that happens concerning your participation in the study, please contact myself : [d.mohamed@lancaster.ac.uk](mailto:d.mohamed@lancaster.ac.uk).

My supervisor: Dr. Murat Oztok: [m.oztok@lancaster.ac.uk](mailto:m.oztok@lancaster.ac.uk)

### **How my data will be stored?**

Your data will be stored in encrypted files (that is no-one other than me, the researcher will be able to access them) and on password-protected computers. I will store hard copies of any data securely in locked cabinets in my office. I will keep data that can identify you separately from non-personal information (e.g. your views on a specific topic). In accordance with University guidelines, I will keep the data securely for a minimum of ten years.

**This study has been reviewed and approved by the Faculty of Arts and Social Sciences and Lancaster Management School's Research Ethics Committee**

### **STATEMENT BY PARTICIPANT AGREEING TO TAKE PART IN THE STUDY**

**I confirm that I have read and fully understand all the information above regarding this study and I agree to voluntarily take part in the above study.**

- **Yes, I consent**
- **No, I do not consent**

## Appendix G

### Consent Form- Interview

**Project Title:** Instructors’ Perspectives Regarding Their Continual Use of Blended Learning Courses in Higher Education Institutions in The United Arab Emirates.

Name of Researcher: Dina Mohamed

Email: d.mohamed@lancaster.ac.uk

1. I confirm that I have read and understand the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily	<input type="checkbox"/>
2. I understand that my participation is voluntary and that I am free to withdraw at any time during my participation in this study and within 2 weeks after I took part in the study, without giving any reason. If I withdraw within 2 weeks of taking part in the study, my data will be removed.	<input type="checkbox"/>
3. I understand that any information given by me may be used in future reports, academic articles, publications or presentations by the researcher/s, but my personal information will not be included, and all reasonable steps will be taken to protect the anonymity of the participants involved in this project.	<input type="checkbox"/>
4. I understand that my name/my organization’s name will not appear in any reports, articles, or presentation without my consent.	<input type="checkbox"/>
5. I understand that any interviews will be video-recorded and transcribed, and that data will be protected on encrypted devices and kept secure.	<input type="checkbox"/>
6. I understand that data will be kept according to University guidelines for a minimum of 10 years after the end of the study.	<input type="checkbox"/>
7. I agree to take part in the above study.	<input type="checkbox"/>

\_\_\_\_\_  
Name of Participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Signature of Researcher /person taking the consent

Dina Mohamed

Date \_\_\_\_\_ Day/month/year

One copy of this form will be given to the participant and the original kept in the files of the researcher at Lancaster University



# Appendix H

## Ethics Approval



16<sup>th</sup> December 2020

Dear Dina Mohamed,

Thank you for submitting your ethics for *'Instructors' Perspectives Regarding Their Continual Use of Blended Learning Courses in Higher Education Institutions in the United Arab Emirates'*.

The information you provided has been reviewed by Dr Murat Oztok and I can confirm that approval has been granted for the revisions to this project.

As principal investigator your responsibilities include:

- ensuring that (where applicable) all the necessary legal and regulatory requirements in order to conduct the research are met, and the necessary licenses and approvals have been obtained;
- reporting any ethics-related issues that occur during the course of the research or arising from the research (e.g. unforeseen ethical issues, complaints about the conduct of the research, adverse reactions such as extreme distress) to the Research Ethics Officer (Dr Murat Oztok or Dr Natasa Lackovic).
- submitting details of proposed substantive amendments to the protocol to Dr Murat Oztok (spvr) for approval.

Please do not hesitate to contact your supervisor if you require further information about this.

Kind regards,

A handwritten signature in blue ink that reads 'Alison Sedgwick'.

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## Appendix I

This appendix presents the results of the quantitative data (including critical factors, effectiveness measures, and continuity decisions) in terms of frequency of responses and a summary of the critical factors in terms of level of importance

### 1. Critical Factors

<b>System Quality</b>					
	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
The system is reliable	4	4	31	104	176
The system is user-friendly	6	4	30	120	159
The system allows me to upload the course content in multimedia form	1	3	39	121	154
The system allows me to communicate with all my students	3	6	26	100	184
The system is compatible with other Microsoft programs	13	11	50	108	136
Average Result	6	6	35	111	162

<b>Information Quality</b>					
	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
The information produced by the system is accurate	2	4	23	131	159
The information provided by the system is complete	4	3	30	138	143
The information produced by the system appears readable, clear, and well formatted.	2	7	34	136	139
Average Result	3	5	29	135	147

<b>Service Quality</b>					
	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
The system support service is available when needed	2	5	31	117	164
The system support service is reliable	4	2	27	126	160
The system support service is easy to communicate with	6	7	28	128	150
The service developers interact fluently with me to develop my course	16	24	50	111	118
The support service provided is adequate	9	10	42	124	133
I am provided with online assistance	15	15	41	124	125
Average Result	9	11	36	122	142

<b>Material Quality &amp; Learning Resources</b>					
	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
The use of the learning management system has improved the quality of the course	16	23	75	122	83
The study materials provided to learners are of the same quality as the traditional course	12	21	49	127	109
The study materials provided undergo the same quality assurance process	8	14	47	150	99
I prioritize the most important information to help learners learn efficiently	5	6	32	145	131
Average Result	11	16	51	136	106

<b>Course Flexibility</b>					
	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
The added use of the learning management system allows for greater course flexibility	7	13	50	150	98
The added use of the learning management system allows me to finish my work more effectively	9	22	61	134	92
The course content can be accessed anytime and anywhere	2	8	30	96	183
Average Result	6	15	47	127	124

<b>Instructor Responsiveness</b>					
	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
I respond to online requests within a timely manner	4	60	151	76	29
I provide feedback regarding assignments/exams on time	2	55	146	78	39
Average Result	3	57	148	77	34

<b>Academic Workload &amp; Time Allocation</b>					
	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
I have been allocated enough time to design my blended learning courses	4	16	45	127	126
My current academic workload still allows me to conduct my own research	14	33	59	109	103
I have been able to work with other instructors to design my blended learning course	23	31	69	124	72
I have been given less workload to focus on teaching and maintaining my blended learning course	39	43	74	89	74
Average Result	20	31	62	113	94

<b>Instructor Control</b>					
	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
I have good control over the use of the learning management system	2	5	29	155	127
I handle the learning management system effectively	2	4	30	148	135
I feel confident uploading course materials	3	7	22	118	169
I feel confident using online communication tools	4	5	22	129	159
Average Result	3	5	26	138	147

<b>Instructor Attitude</b>					
	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
I have a positive attitude towards using the blended learning course	8	10	48	132	122
I believe the blended course is useful	9	26	62	131	91
I support the use of the learning management system	3	8	58	133	117
Average Result	7	15	56	132	110

<b>Instructor Teaching &amp; Learning Style</b>					
	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
I can use an interactive teaching style	6	14	68.0	130	101
I can encourage student interaction	5	11	61.0	122	120
I can use innovative teaching approaches (videos, animations, documentaries, student learning communities, etc.)	6	14	74.0	127	98
I can provide learners with a range of teaching approaches that allow them to choose one that suits his/her learning goals, or that can be personalized to his/her learning needs.	11	20	91.0	137	60
Average Result	7	15	74	129	95

<b>Learner Computer Anxiety</b>					
	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
Students find working with a computer difficult	44	59	84	83	49
Students feel nervous working with a computer	64	71	78	73	33
Average Result	54	65	81	78	41

<b>Learner Technological Experience</b>					
	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
Students have the necessary skills to use the online system efficiently	7	73	120	114	5
Students have the necessary skills to use the online communication tools	13	61	139	100	6
Average Result	10	67	130	107	6

<b>Learner Self Efficacy</b>					
	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
Students can use the system to complete the tasks required of them	3	4	36	146	130
Students have the necessary skills to use the software programs needed for the course	3	9	44	149	114
Average Result	3	6	40	148	122

<b>Learner Control</b>					
	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
Students have the necessary skills to learn independently	3	13	32	127	144
Students have the necessary skills to properly manage their time	4	1	45	148	121
Students are self-motivated	1	6	52	136	124
Average Result	3	7	43	137	130

<b>Learner Personal Innovativeness</b>					
	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
Students have the ability to experiment with the new system	7	20	67	160	66
Students have the ability to adopt to new information technologies independently of the experience of others	6	14	69	149	81
Average Result	7	17	68	154	73

<b>Organizational Support</b>					
	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
Senior management provides me with enough support when teaching blended learning courses	11	7	53	125	122
Senior management implements the use of the system in my course curriculum	9	12	57	131	109
My manager provides me with enough recognition for my hard work	14	13	70	105	117
Average Result	11	11	60	120	116

<b>Training &amp; Development</b>					
	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
I am provided with introductory training before the start of the course	4	10	38	125	143
The training I receive helps me understand how to use the online tools	3	10	31	122	153
The training I receive fulfill my specific needs	4	5	45	130	135
I am provided with continuous ongoing specialized training	5	14	59	115	127
Average Result	4	10	43	123	139

<b>Assessment &amp; Feedback</b>					
	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
I evaluate the learning management system used for online learning	15	18	68	121	97
I evaluate the learners who took the blended learning course	9	11	62	131	105
I evaluate the classroom learning environment	10	15	56	130	108
I evaluate the achievement of the course learning outcomes	6	8	35	132	138
I evaluate the training workshops for the learning management system	14	16	71	124	93
The university provides me with clear feedback regarding my assessments of the learning management system, learner, course, classroom learning environment, and training workshops	17	17	67	122	97
Average Result	12	14	60	127	106

## **2. Critical Factor Results as per Ranking of Importance**

The critical factors are categorized based on their ranking of importance (as per the most frequent response).

<b>Critical Factors</b>	<b>Ranking of Importance</b>
System Quality	Extremely Important
Information Quality	Extremely Important
Training & Development	Extremely Important
Service Quality	Extremely Important
Instructor Control	Extremely Important
Learner Control	Very Important
Course Flexibility	Very Important
Organizational Support	Very Important
Instructor Teaching & Learning Style	Very Important
Assessment & Feedback	Very Important
Academic Workload & Time Allocation	Very Important
Learner Self Efficacy	Very Important
Instructor Attitude	Very Important
Material Quality & Learning Resources	Very Important
Learner Personal Innovativeness	Very Important
Instructor Responsivness	Moderately Important
Learner Technological Experience	Moderately Important
Learner Computer Anxiety	Moderately Important

### 3. Effectiveness Measures

<b>Perceived Usefulness</b>					
	Strongly Disagree	Agree	Neutral	Agree	Strongly Agree
Using the system enables me to accomplish more tasks quickly	7	25	43	140	104
Using the system increases my productivity	12	36	64	116	92
Teaching a blended course enhances my teaching effectiveness	21	39	69	96	95
Using online instruction is useful for teaching	14	27	58	127	94
Average Result	13	32	58	120	96

<b>Perceived Ease of Use</b>					
	Strongly Disagree	Agree	Neutral	Agree	Strongly Agree
The system is easy to use	6	10	47	132	123
I rarely make errors when using the system	14	18	68	139	81
I find the system to be flexible to interact with	3	23	44	147	102
The e-learning tools are clear and understandable to me	2	13	37	135	133
Average Result	6	16	49	138	110

<b>System Use</b>					
	Strongly Disagree	Agree	Neutral	Agree	Strongly Agree
I use the learning management system to communicate with my students	6	9	27	113	163
I use the learning management system to share course information	3	2	18	94	202
I use the learning management system as many occasions as possible for my classes	5	13	36	105	160
I frequently use the management learning system to supplement my teaching	7	15	32	109	156
Average Result	5	10	28	105	170

<b>Satisfaction</b>					
	Strongly Disagree	Agree	Neutral	Agree	Strongly Agree
I am satisfied with the performance of the learning management system	8	22	43	143	102
I am pleased with my experience of using the learning management system	7	21	47	129	114
My decision to use the learning management system was a wise one	4	20	64	112	119
I am satisfied teaching a blended learning course	14	32	44	123	107
Average Result	8	24	50	127	111

#### 4. Continuous Intention to Use

<b>Continuous Intention To Use</b>				
	Strongly Disagree	Disagree	Agree	Strongly Agree
I will use the learning management system on a regular basis to supplement my classes in the future	4	21	149	145
I will always try to use the learning management system to complete a teaching task whenever it has a useful feature	6	25	147	141
My intentions are to continue using the learning management system rather than use traditional teaching activities in classroom	19	76	118	107
My experience teaching a blended learning course was better than what I expected.	17	37	152	114
I intend to continue teaching blended learning courses in the future	15	48	146	110
I would recommend teaching blended learning courses to other instructors	22	54	131	112
Average Result	14	43	140	122



## **List of Abbreviations**

1. BL: Blended Learning
2. CIU: Continuous Intention to Use
3. DL: Distance Learning
4. GCC: Gulf Corporation Council
5. HEIs: Higher Education Institutions
6. LMS: Learning Management System
7. MENA: Middle East and North Africa
8. MOE: Ministry of Education
9. UAE: United Arab Emirates
10. F2F : Face to Face

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