Blended Teaching Practice: hyperbole, heuristics and holding patterns

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Declaration of Originality

I, Carol Aeschliman, declare that this thesis is my own work and to the best of my knowledge it contains no materials previously published or written by another person, and no materials which have been accepted for the award of any other degree or diploma at Torrens University Australia or any other institution, except where due acknowledgement is made in the thesis. I acknowledge that copyright of published work contained within this thesis resides with the copyright holder(s) of those works. Any contribution made to the research by others is explicitly acknowledged in the thesis.

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Ethical Conduct Statement

I declare that the research associated with this thesis was conducted in accordance with the National Statement on Ethical Conduct in Human Research (2007).

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I've travelled many journeys in my life - some boring and tedious, many enjoyable and wonderful, a few painful and traumatic. None was insignificant, and each was challenging in its way. This PhD journey has been all these things at various stages, and often simultaneously. As with all my journeys as I near the end, I reflect on the people who have accompanied me along the way. They deserve my heartfelt thanks. Without their encouragement this PhD would not have been possible.

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Abstract

The use of technology in teaching has become all pervasive in our educational institutions. There is now an expectation that educators will integrate increasing numbers of technological tools into their classrooms and adopt a new paradigm of blended teaching that differs markedly from the didactic form of instructional delivery that has been the norm in the past.

The primary objective of this thesis is to explore the challenges faced by educators as they struggle to integrate new technologies into their teaching. The study considers both barriers and enablers to blended teaching practice and explores the ways in which educators navigate the complexities of their blended learning and teaching environment. The role played by academic developers in upskilling educators in technology, as well as the impact of professional development on the effectiveness of blended teaching practice is also investigated.

This is a mixed methods study and is based on an interpretivist research paradigm. The study includes an overview of blended learning and teaching from the perspective of educators from thirteen Australian universities, together with a focused study of one dual sector institution. The sample covers both the Higher Education and Vocational Education and Training sectors. Informed primarily by the qualitative data, an Academic Development Compliance Typology is developed.

The study argues that the many significant pedagogical and institutional challenges facing educators in their blended teaching practice are not being adequately addressed by key stakeholders. Consequently, due to the continuous hyperbole around the paradigm of blended learning and teaching, and despite their best efforts to integrate technology into their teaching, educators are uncertain as to how to move forward.

This research has implications for educators, academic developers and institutional leaders within Australia. In relation to the Academic Development Compliance Typology, the underpinning data suggested that certain aspects of this dual sector university's blended learning approach could be further investigated, particularly educators' level of ability to deliver effective blended teaching in the current educational climate.

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List of Acronyms

AQEP   Academic Quality Enhancement Process

AQF   Australian Qualifications Framework

AQRF   Australian Quality Training Framework

ASQA   Australian Skills Quality Authority

CALL   Computer Assisted Language Learning

ELICOS   English Language Intensive Courses for Overseas Students

ESL   English as a Second Language

ICT   Information and Communication Technology

LMS   Learning Management System

MOOC   Massive Open Online Course.

NESB   Non-English-Speaking Backgrounds

TAFE   Tertiary and Further Education

TEL   Technology Enhanced Learning

TEQSA   Tertiary Education Quality Standards Agency

TRE   Technology Rich Environment

VET   Vocational Education and Training

VTA   Victorian TAFE Association

WIL   Work Integrated Learning

Section 1

Overview and Background to Study

Chapter 1: Introduction

Title of Thesis

Blended Learning and Teaching Practice: hyperbole, heuristics and holding patterns

The title of this thesis was generated as the result of a great deal of thought and reflection. As with the research design generally, my intention was to match the title with the epistemological and ontological philosophies with which I approached the broad topic of blended learning and, specifically, my focus on blended teaching practice. After many iterations, it occurred to me that I was ignoring the axiological viewpoint which is frequently overlooked in qualitative research. Assuming this role, at least to some extent, enabled me to revisit values which play an intrinsic part in research such as this (Tomar, 2014), and not to shy away from what might, in other circumstances, be criticised as connotative language. To this end, in terms of axiology, I did not feel the need to separate myself from my own personal values and understandings of the topic. With that realisation, the title of this thesis naturally emerged.

The terms 'hyperbole' and 'holding pattern[s]' are both self-explanatory and elaborated on elsewhere in the study. The term 'heuristics' was borrowed and adapted from the field of Design Thinking, where Lugmayr, Stockleben, Zou, Anzenhofer, and Jalonen (2013, p.9) define it as "rules of thumb to think or act in a particular way that don't guarantee a certain result but might be better on average than not acting in such a way." The early stages of blended learning were infused with overdoses of hyperbole and exaggeration (Selwyn, 2015b). Blended teaching practice was approached from a more cautious standpoint where analysis and much trial and error took place (see the plethora of case studies in Chapter 2). The result, as I interpret it, is a vast 'no man's land' where we wait with bated breath for the "latest next big thing in education and technology" (Selwyn, 2017, p. 2). Design researchers in early educational studies claimed that all innovation was inherently iterative (Kelly, Baek, Lesh, & Bannan-Ritland, 2008) and that the process also involved emotions and feelings of discomfort. The 'holding pattern' which my thesis title infers is, then, perhaps both the end and the beginning of the cycle of blended learning and teaching practice that is still evident today. The direction it takes next is explored in this study and will hopefully form the basis for future research.

Overview

It is a commonly accepted truism that the use of technology is currently an integral part of education across universities both in Australia and worldwide. This definitive statement is supported by a wide body of literature which is comprehensively reviewed in Chapter 2. However, it became clear early in this study that, regardless of the nature of the research, axiomatic claims could not be readily applied to the 'nebulous' and 'slippery' concept (Spendlove, 2008) of blended learning and teaching. Multifaceted, much debated and full of contradictions, scholarly discourse about the nature and degree of the impact of technology on teaching practice diverges widely.

The major challenge for me in this research journey was to find a way in which to filter, analyse and draw sensible conclusions from inordinate amounts of conflicting and constantly shifting information. The question arose as to how to make a valid contribution to existing knowledge in the field, rather than merely adding vague assertions to what Selwyn calls "the chatter and noise that surrounds education and technology" (Selwyn, 2017), where "the only certainty is that there is no certainty" (p.vii).

The aim of this study is to investigate *how*, *what* and *why* educators use technology in the face-to-face classroom and to identify barriers and enablers to blended teaching practice. I also debate the polarised view as to whether technology is effective in the current learning and teaching environment at all. These aims were achieved by exploring and evaluating a collective view of educators and academic developers that they are trapped in a so-called 'holding pattern' where past efforts to live up to the potential of technology in education are evolving with the future largely unknown. In a similar way, Oliver (2016), citing Mayes (1995) employed the term "Groundhog Day" characterising this as "a cyclical failure to learn from the past…we have the technology today, and tomorrow we confidently expect to see the widespread effects of its implementation. Yet, curiously, tomorrow never comes" (p.36). This statement neatly encapsulates the core research findings of this study and aligns with its choice of title as explained above.

As a result of the 'blended' concept morphing into a new paradigm in teaching, there is an increasing demand and expectation for educators in universities to incorporate increasing levels of technology into their teaching practice. This has presented them with a myriad of

challenges to keep abreast of technological advances while placing educators, at the same time, under constant pressure to adopt a new mode of teaching. As methods of delivery move increasingly away from traditional, didactic practices, it is important for universities to acknowledge and address the complexity of blending face-to-face and technology-based teaching strategies Lai & Bower (2019). This process may involve what Kebritchi, Lipschuetz, and Santiague (2017) described as a 'disconnect' between the two modes of delivery as educators navigate this new environment, particularly if their concerns and needs are not recognised and appropriately managed by the institution.

Over the last decade or so, many users of technology have reached the conclusion, at least in theory, that technology per se is not a 'magic bullet,' and that its primary focus should not be on the tools or applications, but rather on how they are used (see Chapter 2). This viewpoint does not deter enthusiastic 'early adopters' showcasing new digital innovations. Regardless of how passionate and compelling claims may be about the 'bells and whistles' of a new technological tool, a slew of evaluations, criticisms and ultimately condemnation inevitably follows in quick succession and the wonder tool disappears, to be rapidly replaced by another. In other words as Anderson (2019) stated, "if you buy the latest tech, chances are they will be obsolete in three months – plus or minus" (p.6).

Academic conversations around the ways in which technology is currently shaping education have become increasingly significant as both researchers and educators draw nearer to the conclusion that the integration of technology into university curricula has not achieved the transformation in teaching and learning that early trends promised (Torrisi-Steele, 2018). As such, a number of key issues emerged during this study which need to be examined and critiqued if we are to understand the impact of technology on education - both now, and as we head into the future.

Nye (2007, p.29), citing Roszak (1995), discusses technology in terms of a '"technocracy" claiming that educational technology is "ideologically invisible." With what appears to be a common acceptance that technology is now just what educators 'do' or 'get on with' as part of their everyday working lives, Nye's (2007) viewpoint may still resonate with some people in the field over a decade later. There seems to be a common acceptance that technology is now just what educators 'do' or 'get on with' as part of their everyday

working lives, and the ideals described by Nye as 'rationality' and 'efficiency' in regard to technology are accepted with a lack of critical inquiry by some in the sector. However, technologies vary considerably in type and purpose. Rather than being seen as 'generic' or 'amorphous', such differences between technologies should not only be recognised, but celebrated. As Sankey (2020) explains,

> *it may be that because there are so many differences, other issues may arise that makes one try and find a simple solution. Or the problems that arise from trying to adopt these technologies may be treated in generic ways, but that is not the technologies that cause this, rather it's human characteristics.*

A comprehensive literature review into the evaluation of technology use in Australia by Lai & Bower (2019) identified 18 different technologies that have been used in review papers (p.32). These included Web 2.0 tools; mobile learning; those relating to digital instruction; online learning management systems; animations and simulations; feedback systems; Massive Open Online Courses (MOOCs); student response systems; programming technologies; augmented reality; robotics and e-books. Lai and Bower (2019, p.32) reinforced the need for differentiation between technologies, stating, "the identification of so many different types of learning technologies highlights the diversity of the educational technology ecology."

Challenging assumptions

To respond to what researchers call 'critical' and 'wicked' questions about the divide between the hyperbole, reality and promise of blended learning and teaching, it is necessary to challenge a number of common assumptions as they relate to this study.

The education system is broken

First of all, notwithstanding what appears to be a reassuringly heightened awareness within the education community that technology is not necessarily a panacea for all that is wrong with education (Boud & Brew, 2013), the assumption that the system itself is 'broken' needs to be questioned. According to Weller (2015, p.2), this standpoint "is often stated as an irrefutable fact," although reasons for this are rarely clearly articulated; the broken system has been simply framed as "a starting position from which all else follows, a '*sine qua non*' of educational revolution." While a number of issues identified by educators as barriers to effective blended teaching practice relate to what Hil (2012, p.19) labels

"downright toxic [elements] of today's system," educators for the most part defend their face-to-face teaching strategies, believing them to be pedagogically sound. As Weller (2015, p.3) noted, "if something is broken, then the appopriate response is to fix it." In this study educators, even those who were apologists of the current university system, were resentful of the the assumption that a 'fix' was required and that their professional competency (as they perceived it) was being questioned.

Technology is beneficial to education

The view that technology may not *necessarily* be 'good for education' is largely informed by the work of Neil Selwyn who, over the last decade, has encouraged researchers and academics to adopt a critical perspective, rather than to passively accept technology as 'routine' 'unremarkable' and perhaps, most importantly, 'inevitable.' Relevant to the debate highlighted in this study about a flawed education system, Selwyn has criticised the assumption that solutions are inevitably to be found in the form of technological interventions. Selwyn (2007, p.83), dated this "unerring faith in a technological fix" back to a study by Robins (1989). Robins identified the "rapidly accepted," "adroitly managed" solution of a technical fix thirty years ago (p.31), hence it is little wonder that the assumption is so firmly entrenched today. The issue as it relates to perceptions about the efficacy of blended teaching practice is discussed in Chapter 2, Chapter 5 and Chapter 6. Also evident in this research is an acknowledgment that scholarly narratives around the confluence of technology and education are inherently complex and 'messy.' As such, the barriers and enablers to successful blended teaching practices identified by educators are not isolated to technology; they also encompass social elements which are described in this study as 'extrinsic' and 'intrinsic' factors and are discussed throughout the content chapters.

Academic development guides best-practice blended teaching

Although this research identifies and reviews many successful initiatives implemented by a rapidly expanding body of enthusiastic and committed academic developers, the assumption that these professionals are becoming increasingly influential and effective (Knapper, 2016) is, I believe, open to challenge. According to educators, significant impediments to effective academic development (which encompasses professional development, or 'PD') include time pressures; increased administrative workloads; an

academic reward system which unfairly prioritises research over teaching accomplishments (Denial & Hoppe, 2012); institutional leadership failings and, in the case of VET teachers, ASQA auditing and compliance requirements. These factors have reassured educators that the problem does not lie in their traditional instructional methods, thus they do not need to improve their teaching practice. As Wayne, Yoon, Zhu, Cronen, and Garet (2008, p.470) observed, "nearly everyone decries the 'one shot' workshop and affirms that PD should be sustained and intensive." Yet, according to my research, these characteristics of academic development are not the reality; what is needed to fulfil the potential of the expertise and passion of academic developers are 'fruitful forms of professional development' which are framed "not in terms of technology, but in terms of enriching teaching practices" (Torrisi-Steele, 2018, p.195) which enable learning.

Statement of Significance

Complexities of blended teaching

This thesis investigates educators' perceptions of the role of technology in education; how digital tools are used in face-to-face classrooms and the factors that positively and negatively impact successful blended teaching practice. I have considered the potential impact of digital technologies on the professional lives of those teaching in Higher Education (HE) faculties in Australian universities, as well as within the Vocational Education and Training (VET) sector, particularly in the dual sector environment. The tools that educators implement in their classrooms were identified in this study, together with an investigation into how technological tools are incorporated into teaching practice, and to what extent educators engage with the online tools available to support their teaching and organisational needs.

Much of the current literature in the field of blended teaching comprises case studies which, according to Romeo, in M. Henderson & Romeo (2015), may not be relevant in other contexts (at least in their present iterations). This frequently leads to a pattern where academics frame discussions in a deterministic manner, ignoring the nuances of what takes place in blended classrooms. While the focus of this research is on blended teaching practice, the aim of this study therefore is to move beyond a narrow-applied perspective

to encompass the broader issues relating to blended teaching, thus avoiding a binary stance where the impact of technology is viewed as 'effective', 'or ineffective.'

Viewed through this nuanced lens, the thorough analysis and discussion in this research into tensions and issues relating to educators' attitudes to, and actual use of technology contributes to a research gap in this field. The challenge to take a wider view was highlighted by Mayes (1995, p.2) with two crucial points that are still current: firstly, the question should be "not how powerful is [sic] the technology, but where is the learning need?" and secondly that "education is a social and political system, and the checks and balances that keep the system working may not be shifted by any technology." Further, as discussed above, the study analyses the impact of approaches to blended teaching from what educators and academic developers perceive to be a 'deficit position' and argues that managers could seek more effective ways of encouraging the integration of technology than imposing interventions such as alternative modes of lecture delivery and quality assurance processes (see Chapters 5 and 6).

A significant part of the extant literature also focusses on students' learning outcomes and views about technology in their classrooms. While claims that student insights inform future decisions about what is most effective in digital technology (Henderson & Romeo, 2015), there is less research into the impact of technology on academic teaching practice itself, possibly because, according to Bijker (2009), questions about how to use technology may open up issues around political agendas which may be 'hidden'.

By identifying some of the main obstacles to the implementation of blended learning and teaching strategies and evaluating the impact of some of these inherently political management decisions relating to educators, this thesis contributes to a further gap in current research. The knowledge acquired could be utilised in encouraging universities to allow more agency for educators in the planning and implementation of institutional blended learning strategies and policies.

Academic development

Torrisi-Steele (2018, p.181) identified effective professional development as a crucial component of blended teaching practice, not only for upskilling educators in technology

use, but also for learning design "as opposed to course translation into digital mode." A review of academic development highlighted a number of challenges in relation to lack of clarity around the concept; roles and responsibilities; the nature of professional development support; tensions between key stakeholders (i.e., developers, educators and managers) and differences in support needs of the HE and VET sectors.

Integral to issues and challenges around the 'fast-growing practice" of academic development (Roxå & Mårtensson, 2017, p.95) is the increasingly significant work of academic developers (ADs) who support educators with their professional learning and blended teaching. As discussed in detail in the literature in Chapter 2, an image emerged that this cohort has somewhat 'lost its way' in regard to role definition, the nature of its work and relationships with management and educators.

Clegg (2009) discussed the 'homeless' state of ADs a decade ago and it seems that little has changed since then. It is clear that an understanding of academic development is of wider significance than merely to the specific field. Exploration into the conversations and interventions of ADs may have an impact across university sectors generally and, accordingly, this study provides some insights into the research in this area.

An Academic Development Typology

A further way to address these issues was by devising a typology framework - the *Academic Development Compliance Typology* (*ADCT*). This framework is applicable to all institutions both in the higher education and vocational sectors. However, the categories and definitions can be adjusted for different contexts. As such, institutional leaders could adapt the framework to the elements of academic development specific to their individual needs. The ADCT framework may provide universities with structure to guide educators in the design of professional development programs.

The ADCT framework also highlights the concept of academic compliance. Three categories of compliance create themes for further discussion and development, and the examples in the form of educators' comments provide possible ways for academic developers and institutional leaders to evaluate the impact of professional development and the extrinsic

and intrinsic factors that shape it. It is further intended that this typology will help educators, developers and managers reflect on and understand responses to dispositions about technology integration. In particular, the framework contributes to an understanding of why current academic development offerings are frequently met by educators with resistance or varying levels of compliance, rather than engagement.

The process which led to the development of this typology is introduced, presented and discussed in Chapter 6, *Impact of Academic Development on Blended Teaching Practice*. In relation to its significance, this is also summarised in Chapter 7, *Conclusion*. In relation to this theme, I made a distinction between educators' compliance with academic development activities and their compliance with the regulations in regard to various reporting bodies such as TEQSA, ASQA and so on (see List of Acronyms).

The Higher Education and Vocational Education and Training debate

With the VET sector forming a major component of the qualitative section of the research, a final significant contribution of this thesis is to add to the paucity of literature in regard to the dual sector vs higher education debate. The VET sector is inherently diverse, offering a wide range of qualifications from Year 12 to degree level. As such, VET teachers are under pressure to develop a wide range of pedagogical practices which will meet the needs of their programs and student cohorts (O'Brien, 2015).

In this study I investigated the nature of the wide disparities between the HE and VET sectors. In relation to the latter, I identified and discussed what I perceived as these educators' atypical approaches to blended learning and teaching; a more pragmatic use of technology; phlegmatic attitudes towards academic development; diverse workloads and priorities. Finally, I analysed VET perceptions of a 'silo culture' which is perceived to prevail in the dual sector university in this study and which has obvious ramifications for the institution.

Purpose and Objectives of Research

A large body of research suggests that although it is now firmly entrenched in and an integral part of education (see Chapter 2), the use of technology has not, for the most part, to live up to its initial expectations. Some educators in universities are using technical tools

for the most part as an 'add on' to their face-to-face teaching, rather than to enhance it (Torrisi-Steele, 2018), although some researchers dispute this, as highlighted in Chapter 2. Porter & Graham (2016) discussed the challenge of a serious lack of institutional expectations, claiming that without clear guidelines and expectations for academics to follow, it is difficult to assess the impact of technology on education. Further, Kebritchi et al. (2017) recognised academics' attitudes to, and comfort with teaching with technology; changing faculty roles; time management and teaching styles as issues related to the efficacy of blended teaching.

The above are some of the key issues which led to this current research, and which I have examined; my aim was to provide a degree of clarity, as well as what (Selwyn, 2017, p. 2) calls "a sustained and honest appraisal" of what the barriers and enablers of blended teaching are and how they can be managed. In this way, I hope to add to understandings about the realities of this mode of teaching as it actually occurs in the classroom.

Research questions

As the aim of this research involves investigation into blended teaching practice of educators in Australian universities and its impact on their academic lives, I formulated three key research questions:

1. What are the main issues facing educators teaching in a blended environment in Australian universities?
2. What technological tools do educators use in their blended teaching and why?
3. How does academic development impact educators' blended learning and teaching practice?

To elicit answers to these key research questions, I will address the following sub-questions, displayed in Figure 1 below:

1. ***What are the main issues facing educators teaching in a blended environment in Australian universities?***
   - What factors do educators identify as *barriers* to successfully managing their blended learning and teaching?
   - What factors do educators identify as *enablers* to successfully managing their blended learning and teaching?

2. ***What technological tools do educators use in their blended teaching and why?***
   - How do educators integrate technological tools with their face-to-face teaching?
   - What are educators' perceptions as to the advantages and disadvantages of integrating technology into their face-to-face teaching?

3. ***How does academic development impact educators' blended teaching practice?***
   - What kinds of academic development do educators perceive to be of the most value to their blended teaching practice?
   - How do educators perceive the role of academic developers, and what are the relationships between these two cohorts?
   - How do academic developers influence educators' blended teaching practice?

Figure 1: Research questions

In the *Literature Review* (Chapter 2), I identified various other areas of research in need of further exploration. One theme in particular that I felt had ample scope for research was to investigate the comparability and tensions between the HE and VET sectors. Because I did not initially plan to consider this theme, I did not formulate a research question to address it. Rather, it emerged later from the process and results of initial questionnaire responses which I will explain in detail in the following section, *Research Design.*

Research design

This research is theoretically a 'mixed methods' study and accordingly I have used this terminology throughout the thesis. That said, it is based primarily on a qualitative approach, with a smaller initial element of quantitative data that complements and supports the qualitative findings. The study is interpretivist, and I adapted a paradigmatic strategy. My aim was to present ontological, axiological and epistemological viewpoints in the research paradigm I selected; these underpinned the methodologies and the research questions which were designed to enable description and interpretation of findings.

For the study, I used a mixed-methods sequential integrative design which involves generating and analysing quantitative and then qualitative data in two consecutive phases (Bazeley, 2017; Ivankova, Creswell, & Stick, 2006). In this case, the quantitative results were drawn from an online survey designed to identify educators' attitudes towards blended learning and teaching and to gain an insight into their perceptions as to the effectiveness of technology in improving their teaching practice. The qualitative component comprised semi structured interviews conducted with educators and academic developers from both the HE and VET sectors of a middle-sized dual sector university located in Melbourne, Australia.

Structure of Thesis

The thesis is organised into 4 sections containing 7 chapters. A summary of these is provided in Table 1 below.

Summary of content chapters

Section 1 Summary	
Overview & Background to Study	
Chapter 1: Introduction	In this chapter I provided an overview of the research, background to the topic, motivation for my PhD project, research methods and methodology. I also presented my theoretical and academic contributions of the study to existing knowledge in the field of blended teaching practice.
Chapter 2: Literature Review	In this chapter I reviewed relevant literature related to blended learning and teaching from approximately 2000 to 2020. Further, I identified and discussed a number of factors that positively and negatively impact blended teaching practice in the HE and VET sectors of universities.
Section 2 Summary	
Research Methodology	
Chapter 3: Methodology & Methods	This chapter began with a description of the pre-analysis tools. The research methodology of the mixed methods study was presented in this chapter. This included objectives, philosophies, methods, frameworks and two diverse approaches to data generation and data analysis - thematic and sequential integrative approaches, respectively. In particular, I described in detail the interpretivist paradigm which underpins the study.

Section 3 Summary Discussion & Analysis	
Chapter 4: Results of Online Survey	In this chapter I provided a brief descriptive analysis of the quantitative data. This data was generated by the online Blended Learning Survey (see Chapter 3 and Appendix F).
Chapter 5: Educators' use of technology	This chapter analysed and discussed the qualitative data generated by the semi-structured interviews described in Chapter 3. The theme of educators' use of technology in their face-to-face teaching was explored in this chapter. A comparison and contrast between Learning Management System (LMS) and non-LMS tools was presented, and the impact of technology on blended teaching practice in relation to educators' perceptions was analysed and discussed.
Chapter 6: Impact of Academic Development on Blended teaching Practice	This chapter further analysed and discussed the qualitative data. The findings from the analysis of responses from interviews with both academic developers and educators on their perceptions of the impact of academic development on blended teaching practice were discussed. This related to perceived differences between HE and VET educators in regard to academic development. The concept of educators' compliance, with its related categories and definitions, was also introduced and described. An academic compliance typology (ADCT) is presented and discussed.
Section 4 Summary Review of Study	
Chapter 7: Conclusion	The conclusion summarised the research undertaken and findings from the research questions. My academic and theoretical contributions to existing knowledge in the field of blended learning and teaching were proposed and summarised, particularly in regard to the *Academic Development Compliance Typology (ADCT).* I also discussed limitations of the study and implications for future research.

Table 1: Summary of content chapters

As outlined in Table 1, Chapter 2 comprises the Literature Review relevant to this thesis. Chapter 3 covers the Methodology and Methods. Chapter 4 comprises the results of the *quantitative* survey, while Chapters 5 and 6 relate to the analysis of results generated from the *qualitative* data which address the themes of educators' use of technology and the

impact of academic development on blended teaching practice. Discussions of qualitative and quantitative results are integrated into Chapters 4, 5 & 6. Chapter 7 contains the Conclusion to the study.

In addition to the content chapters described above, the thesis also includes 5 appendices which are summarised in Table 2.

Appendix	Description
A	Example of initial codes applied to sections of data
B	Copy of E mail to potential educator participants
C	Copy of E mail to potential academic developer participants
D	Participant information and informed consent form
E	Proposed semi structured interview questions for academic developers
F	Online blended learning survey

Table 2: Summary of Appendices

Chapter 2: Literature Review

Introduction

Relevant areas of study

In this literature review I examine the main issues that impact blended learning and teaching in the university sector, focusing on the outcomes of the study as described in the introductory chapter and encapsulated by the research questions (see page 17, as well as in Chapter 1, *Introduction* and Chapter 3*, Research Methodology*). This study draws on the concept of blended teaching and what this means to educators working with technology in blended or, as they are sometimes called 'hybrid' courses. It is not my intention to separate 'learning' from 'teaching', either contextually or in practice, but rather to gain a better understanding of how educators teach successfully in the blended mode and the challenges they encounter along the way.

Firstly, the conceptual ambiguity of the term 'blended learning' as described in the literature is explored, together with the impact this may have on successful blended teaching practice. Similarly, I examine anomalies around the definition of 'academic development' and whether the pedagogical and cultural heterogeneity of the 'academic developer' cohort influences educators in their uptake and successful integration of technology into face-to-face classrooms. The effect of institutional cultures in the Higher Education (HE) and Vocational Education and Training (VET) sectors are also investigated in this chapter, together with changes in the educational environment, particularly in regard to advances in technology.

With much of my research informed by a dual sector university in Australia, I review the literature related to tensions between the two sectors. With the study based mostly on blended teaching in the VET rather than the broader Tertiary and Further Education (TAFE) sector, pedagogical and cultural disparities between HE and VET are relevant, and these are discussed these in the final section, 'the Dual Sector University,' of this chapter.

Research questions

1. What are the main issues facing educators teaching in a blended environment in Australian universities?
2. What technological tools do educators use in their blended teaching and why?
3. How does academic development impact educators' blended learning and teaching practice?

Structure of the literature review

The review is divided into seven areas of study:

1. What is blended learning?
2. Blended teaching practice
3. Educational framework models
4. Educators' use of technology
5. The impact of academic development
6. The VET and HE debate

In each of these sections the key question I ask is: 'What does the literature about blended learning tell us about the practicalities of teaching in this mode?' By providing a more critical understanding of the areas of literature described above in this review, I hope to identify the gaps and make a significant contribution to the body of knowledge in the areas of blended learning and teaching practice.

Sources of the literature review

In addition to accepted best practice in regard to academic search engines, I have occasionally acknowledged the broad scope of Google Scholar as an academic search engine without cross-referencing with academic journal articles and case studies, or to search other databases. To this end, I was reassured by Rowe (2017) who used Google Scholar (GS) as a comparative source to 249 'reputable' databases in a study on tracing the 'grey literature of poster presentations.' In relation to regularly cited works (including self-citations), he concluded that in several cases Google Scholar was more reliable at returning literature than cross referencing, estimating that it captured 87% of documents that are available on the Web. Google Scholar was sufficient for me to form an evidence-based opinion on the popularity of educational framework models, if not their effectiveness. In

regard to this theme, however, I employed literature searches through a myriad of databases in the area of education as with the rest of this review of the literature.

Definitions of Blended Learning

History of definitions

Literature reviews have indicated that one of the main barriers to successful blended learning and teaching is the lack of a commonly accepted definition of the term 'blend.' To shed some light on this, it is useful to examine the history of the many definitions proposed. The genesis of the concept of blended learning is debatable, but it is generally thought to have first appeared in educational institutions in open universities worldwide in the late 1970s, when print and electronically mediated materials were integrated with face-to-face tutorials for the first time and thus computers became part of the educational curriculum (Haran 2015).

Definitions of blended learning remain a challenge today mostly, as researchers point out, because universities tend to use their own language, definitions or typologies to describe their own individual blended practices. This has changed little since the concept of blended learning began to gain momentum in higher education in the late 1990's; in fact, a recent review of the research by K. Smith and Hill (2019, p.386) found that over 40% of articles do not provide a definition of what blended learning is at all, "suggesting that it is assumed people will already know." Meston (2019, p.82) claims that this knowledge is rarely the case and that "Institutions generally need to educate academics and students about the institution's own definition of blended learning, as well as the objectives and potential benefits of blended learning."

Researchers such as Friesen (2014) believe that early definitions were irrelevant, eclectic and lacking clarity, with the majority merely offering variations on the common theme that blended learning was a mix of face-to-face and online learning, a concept that was first articulated by Bonk & Graham, 2012. Nevertheless, such early understandings of blended learning are useful as historical antecedents to later discussion and debate around the intersection of education, teaching and technology. Indeed, even vague descriptions illustrate the emergence of what would become a new paradigm to be hailed as the 'new normal' in pedagogical practice (Dziuban, Graham & Moskal, 2018). K. Smith and Hill (2019,

p. 391) argue that as blended learning is currently viewed as a technical term which is highly prevalent in specialised literature, in particular, normalisation is no longer the case. They suggest further that their review was limited because, rather than capturing all firmly - embedded blended learning practices, only those that "define themselves explicitly as blended learning" may have been identified.

According to the literature, I have divided the numerous attempts to define blended learning definitions over the past two decades into three phases:

	Phase	Description	Approximate time frame
1.	Teaching & technology combined: what precisely is the mix?	Combinations of instructional modalities methods, and face-to-face vs online teaching	2001-2005
2.	Teaching & technology integrated: one assimilates the other	Focus on interactivity and integration of face-to-face teaching & technology-mediated instruction	2006-2010
3.	Teaching & technology enhanced: pedagogical focus	Greater emphasis on pedagogy and new and emerging concepts and tools	2011-2020

Table 3: Phases of blended learning definitions

Phase 1

The first, earliest phase began with a perception that blended learning comprised instructional processes or delivery of media which incorporated "in-class teaching and learning modalities with robust electronically mediated experiences" (Skill & Young, 2002, p.25). A year later, a literature review was conducted by Graham, Allen, and Ure (2003) who described the concept of blended learning as a combination of multiple delivery media which were designed to complement each other and promote meaningful learning.

Unfortunately, concise though they might have been, definitions such as these lacked clarity because by focusing on various combinations of methods and modalities they were so broad that it would be difficult to provide an example of technology-enabled learning and teaching that could be excluded. As Bonk, Graham, Cross, and Moore (2005, p.218) explained, "One would be hard-pressed to find any learning system that did not involve

multiple instructional methods and multiple delivery media." Such inclusive definitions, it seems, failed to get at the true meaning of what blended learning is, and is not. Researchers during this early period described various approaches as 'pick and mix,', (Bonk et al., 2005; Conole, 2007; Walsh, 2005), whereby teachers merely added online activities to face-to-face instruction which resulted in 'strong' and 'weak' blends (Littlejohn & Pegler, 2007). Perhaps the most vivid description was Clark's (2003) of a 'velcro approach' which was defined as the use of e-learning platforms in combination with face-to-face teaching where there is "no attempt at integrating the technology and classroom into a single learning experience or environment" (p.11).

The 'pick and mix approach' was viewed as a challenge primarily because teachers could assume the benefits of blended learning while retaining their original course more or less intact, and without having to revise course objectives within the context of a blended learning model (Alammary, Sheard, & Carbone, 2014). Further, in this context, blended learning was conceptualised merely as making a selection between new and old practices, as if one could replace the other.

Phase 2:

Phase 2 saw a shift in focus in the use of the term blended learning. Definitions during this period began to extend beyond the notion of face-to-face interactions and technology as merely being co existent, focussing instead on interactivity and integration. Firstly, in an attempt to reconcile the issues surrounding the broad and inclusive definitions discussed above, Graham, (2006), in his seminal work produced a working definition that came to be widely accepted at the time, reflecting the development of blended learning systems since its first inception, with an emphasis on the role of computer-based technologies. Graham's definition combined instruction from two historically distinct models of teaching and learning: traditional face-to-face and distributed learning systems. This was considered to be more useful than the previous early definitions because it referenced traditions and practices that were already familiar to educators. In other words, blended learning became more relevant (Friesen, 2014). Secondly, recognising that blended systems of learning could address a wide range of needs in terms of both quality of communication and human interaction, Bliuc, Ellis, Goodyear, and Piggott (2011, p.4) included in their blended learning definition "learning activities that involve a systematic combination of face-to-face

interactions and technologically-mediated interactions between students, teachers and learning resources."

A further challenge during the phase 2 period was to explore the superficial 'pick and mix' approach articulated by Bonk et al. (2005) above. With this in mind, Garrison and Vaughan (2008) concentrated rather on the 'thoughtful fusion' or integration of face-to-face and online elements in the design and delivery of blended programs. Acknowledging that the proportion of learning activities in these two modes may vary considerably, they declared that "blended learning is distinguishable by way of the integration of face-to-face and online learning that is multiplicative, not additive" (p.7). This conscious, seamless combination of the two modalities - each complimenting, improving and integrating with the other - resulted in what Friesen (2014) described as one of the most thought-provoking and significant discussions to emerge from the literature at this time. There were two main reasons for this. Firstly, the definition by Garrison and Vaughan (2008) portrayed blended learning as having a natural place in higher education contexts. Secondly, it emphasised the textual nature of many online environments, as opposed to the oral communication typical of the classroom. This proposal that blended learning involved a scholarly and integrated design process supposedly added a new dimension to blended learning theory, although it is unclear as to why (and on what basis) it was considered to be scholarly. It does, however, provide a context for the third phase.

Phase 3:
A number of researchers define the third phase as 'enhanced' because, for the first time in over two decades, definitions moved firmly beyond the theory of face-to-face and online delivery, placing emphasis on potential pedagogical impact and new and emerging technical tools (Staker & Horn, 2012). Key dimensions such as learning, teaching and design were identified as being more important than technology, an assumption that is firmly entrenched and widely acknowledged by current educational researchers today. Around this time the concept of flexibility was also articulated, with Horn and Staker (2011, p.4) defining blended learning as "any time a student learns at least in part in a supervised brick-and-mortar location away from home, and at least in part through online delivery with some element of student control over time, place, path and/or pace."

A body of literature supports the claim that the constant state of flux of blended learning and teaching, as well as technology and pedagogy generally, at least partly explains the difficulties in reaching a consensus of what terms mean to educators (Higgs, 2015; Stein, Torrisi-Steele, 2018). Selwyn (2017, p. iv) in a critique of "slippery Ed-Tech speak," claimed that even "innocuous terms such as learning technology "make definitions of blended learning and teaching even more difficult because they are value-laden, with the implication that technology will automatically lead to learning. This is probably a reasonable argument and is consistent with other researchers who claim that, despite promises to the contrary, academics are currently not using technology to meet learning objectives in order to achieve the rich learning promised. However, a contrarian statement by Selwyn (2016b, p.9) - that the descriptions of the blended model as transforming, or even improving learning, should be treated as "evocative and aspirational stories" rather than "sober, objective and accurate descriptions" of the realities of digital learning and teaching - is not helpful; firstly, he offers no alternative definitions of blended learning or teaching and, secondly, there appears to be a lack of systematic theoretical evidence to his claims, with many of the arguments based on blogs and media reports, rather than on rigorous academic sources.

Despite the plethora of work carried out on blended learning in the last three decades, educators agree that there is still no single, commonly accepted definition of the term (Alammary et al., 2014; Carbone et al., 2019 ; Mestan, 2019), and that the concept is still nebulous. In an attempt to provide a concise definition, Boelens, De Wever, and Voet (2017) described blended teaching as a deliberate blend of face-to-face and online instructional activities, with the aim of stimulating and supporting learning. While this definition might be viewed as useful and 'workable', just what the blend means is still not explained, possibly because these researchers confounded brevity and clarity by making the term all-inclusive. This appears to be a common pattern in the literature, despite the many references to blended learning being clearly heavily context dependent, with a "practically infinite number of possible solutions" (Bryan & Volchenkova, 2016, p.28).

More recent research indicates a swing back to framing definitions of blended learning in terms of the simpler combination of face-to-face with online teaching practice (Spanjers et al., 2015). As Voet and De Wever (2017) explain, the reason for this is that the basic

description enables a 'redefinition,' whereby the use of technology can inform learning design of instructional activities to be integrated into classrooms to optimise teaching. This clearly represents a change in the conceptualisation of blended learning in that it challenges older definitions which implied that technology largely supplemented or substituted for existing content without any 'functional change' in learning and blended teaching practice. However, as Boelens et al. (2017, p.2) state, while this 'redefinition' is valuable in that it informs learning design in the area of blended teaching practice, it fails to provide "concrete design principles for creating instructional activities in blended learning environments."

In response to the above limitations and comments, (Brack, 2019) describes blended learning as:

> *The thoughtful integration of learning and teaching approaches in both*
> *on-campus, face-to-face and virtual learning environments utilising the*
> *affordances of each environment to enhance the student experience.*

As Brack (2019) explains, the above definition accommodates a wide and diverse range of blended learning capabilities, as well as incorporating 'process' (pedagogy) and 'product' (environment) with a combination of face-to-face and online elements (Alammary et al., 2014). While Brack's (2019) definition may still lack clarity and thus continue the tradition of older, problematic learning definitions as detailed in the early research cited above, it has the advantage of highlighting some of the issues facing educators in blended teaching which are lacking in other definitions. As such, I found it relevant to this study with its focus on blended teaching practice.

Blended Teaching Practice

Research shows that blended courses have become increasingly commonplace in universities worldwide (Carbone et al. (2019) with almost half of academics estimated to regularly use online tools to supplement face-to-face instruction of undergraduates (EDUCAUSE Horizon Report, 2019). Yet, as mentioned above, with most studies focusing on students' insights and learning outcomes, scant attention has been paid to academics' perceptions about either actual blending teaching practice, or considerations of staff perspectives generally (K. Smith & Hill, 2019). As Tran and Le (2017, p.78) claim, this is

particularly the case in the VET sector where, compared with HE, literature around professional learning remains 'modest'. With this identified as a gap that has existed in the research for more than a decade as cited by Kaleta et al. (2007), knowledge of how blended theory translates into teaching remains a challenge. The research to date has tended to focus rather on studies which are "practical in nature, small-scale, individually focused, and outcomes orientated" (K. Smith & Hill, 2019, p.392); they approach the topic in a fragmented way by concentrating on factors in isolation, while ignoring their interactions and cumulative effects.

Mirriahi, Alonzo & Fox (2015, p.1), agreeing that the popularity of blended learning does not necessarily translate into the advancement of academic practice, suggested three possible reasons for this. First of all, despite the increasing availability of tools, digital literacy (i.e., academics confidence and skills in using educational technologies) are low; secondly, the blended learning concept itself is unclear and open therefore to individuals' own interpretation of the term; and thirdly tools available to guide and evaluate course design are limited. Mirriah et al. (2015, p.2) believe that the three issues discussed above are critical in achieving effective blended learning and teaching; improving educators' skills and levels of confidence using technological tools; and in finding a consistent definition to underpin academics' practice and providing frameworks for objective evaluation of blended learning practices. By addressing the above issues, Mirriah et al. (2015) developed a blended learning framework which they claimed could help academics evaluate their blended teaching practice, improve their digital literacy kills and formulate their own blended learning definitions and policies (p.12).

In an attempt to address issues such as those identified by Mirriah et al. (2015), many other educators have attempted to embed theory into the use of technology in the classroom by designing similar frameworks and models which aim to assist in the evaluation of their blended teaching practice. Examples of implementation of the popular SAMR and TPACK frameworks are evident in many studies. Similarly, models such as Laurillard's 'Conversational Framework' (2013) and Salmon's 'Carpe Diem' model (2014) are still effectively workshopped in HE institutions worldwide. Therefore, I have described these four models in the following section albeit, due to word count restrictions, somewhat briefly.

Blended Learning Frameworks

Research indicates that of the plethora of blended learning models available to educators, those perceived to be the most useful are Koehler and Mishras' (2009) TPACK (Technological Pedagogical and Content Knowledge) framework; Puentedura's (2006) SAMR (Substitution, Augmentation, Modification, Redefinition) model; Laurillard's (2013) Conversational Framework, and Salmon's 'Carpe Diem' Learning Design framework. I also considered Bergmann and Sams' (2012) Flipped Classroom model here; although the 'flipped' concept is underpinned primarily by the use of digital media - and is therefore perhaps narrower in its technological focus - I considered it to be worthy of consideration in this section due to its ongoing popularity in all educational sectors.

All five models to be discussed in this section are widely represented in the extant literature. Despite some apparent controversy on the theme of the importance of pedagogy vs technology (see previous references), both TPACK and SAMR are directly related to the implementation of a wider range of technologies in educational contexts and are increasing in popularity (Hamilton, Rosenberg, & Akcaoglu, 2016). These will be discussed first in this section. The Laurillard and Salmon frameworks which are used in different contexts and to different ends, will be discussed in the paragraphs following the TPACK and SAMR models. The final section will debate the pros and cons of the Flipped Classroom Model.

The TPACK Model

In 2006, Mishra and Koehler advocated a conceptual framework (TPACK) to guide educators with incorporating technology effectively into face-to-face teaching. To achieve this, Mishra and Koehler argued that a body of knowledge was necessary to enable a comprehensive understanding of the concepts of technology and blended learning and teaching (Vasodavan, De Witt & Alias, 2019).

The TPACK framework comprises the following domains:
- Content Knowledge (**CK**) - mastery of the actual subject matter to be learned and taught
- Pedagogical knowledge (**PK**) - practices and the process of teaching and learning
- Technological knowledge (**TK**) - knowledge of how to work with and apply technological tools

- Pedagogical Content Knowledge (**PCK**) - integration and alignment of content and pedagogy

- Technological Content Knowledge (**TCK**) - ways in which teaching might change as the result of using particular technologies

- Technological Pedagogical Knowledge (**TPK**) - use of various technologies in teaching, and an understanding that using technology may change the way an individual lecturer teaches

Roussinos & Jimoyiannis, (2019, p.380) summarise the Technological Pedagogical Content Knowledge (**TPACK**) framework as a representation of:

> *the integrated body of knowledge and skills of these domains that illustrate how to design and implement meaningful, constructive and efficient use of specific ICT tools to teach a specific subject topic by using specific pedagogical methods and strategies, in order to achieve the intended learning outcomes.*

Since its inception over a decade ago, TPACK is still widely implemented in higher education courses. For example, Read, Morel, Butcher, Jensen and Lang (2019), in a comprehensive study on the development of TPACK understanding in HE faculties in the US, highlighted positive changes in teaching beliefs, self-efficacy and attitudes to online and blended learning as well as reported increased levels of transformative change and more learner - centered instruction. Similarly, a Malaysian study of collaborative tools used by lecturers when guided by the TPACK framework by Vasodavan, De Witt & Alias (2019) confirmed the importance of lecturers being technologically and pedagogically competent by having the knowledge and skills to identify suitable tools to teach different content areas. With TPACK this was more achievable than lecturers who relied merely on their knowledge of a variety of technologies used in learning environments.

The SAMR Model

This 2006 model by Dr. Ruben Puentedura categorising four different degrees of classroom technology integration - Substitution, Augmentation, Modification, and Redefinition - was created to share a common language across disciplines as teachers strive to help students visualize complex concepts (Schoology Exchange, 2017).

The lowest level of SAMR, *Substitution*, refers to the use of newer technology which substitutes for an older tool. The second level, Augmentation, refers to the use of

technology to improve the learning outcomes resulting in a more student-centred activity. These first two levels Puentedura refers to as 'enhancing' learning. Moving up to the *Modification* level sees digital tools being used to achieve something new that could not be done without the technology. The final *Redefinition* level can be reached with inclusion of many of the features considered to be good pedagogical practice because students are actively engaged in collaboration; the use of a digital tool mediates learning and helps students to reach their full learning potential. Puentedura claims that these two higher levels 'transform' learning (Robinson, 2017).

Although the SAMR model has been used successfully as a way for educators to assess how they incorporate technology into their face-to-face teaching, there are critics who complain that it is overly simplistic; that it is presented as a ladder instead of a more valid spectrum structure and that it lacks valid empirical research (Lacruz, 2018). Hamilton, Rosenberg & Akcaoglu (2016), critiquing the SAMR model, also focused on the absence of context, its hierarchical structure, and the emphasis placed on product over process.

The Conversational Framework

This framework, described by Laurillard (2013, p.59) as "a perspective that envisages learning process as an iterative dialogue between student and teacher" was designed, according to its author, to provide educators with ways of thinking about teaching and learning itself, rather than technology per se. In this regard, the framework contrasts with the SAMR and TPACK models (which are, as stated above, criticised by many researchers as too heavily focused on technology). As such, Laurillard (2013) claims, the Conversational Framework gives universities the opportunity to "find an infrastructure that enables university teachers to be as professional in their teaching as they aspire to be in their research" (p.60).

Sharples and Ferguson (2019, p.5) stated that what makes the conversational framework different to other theories of experiential and reflective learning, and learning through mutual discussion, is that it is intended to be an implementable model for learning mediated by technology. This is supported by the many case studies which highlight the affordances of Laurillard's model as applied to individual educational contexts. For example, Sharples and Ferguson (2019) used the model as a foundation for designing a MOOC course in the LMS 'FutureLearn'. Comparing their MOOCS with other like MOOC

platforms, they found that the conversational framework version showed a much higher degree of active social engagement, and that their research provided a process of learning through conversation, together with a direct instructional system through online video, text and formative assessment.

Considering the framework in designing customised LSMs such as in the study above, Nigerian researchers Nwabude, Ogwueleka, & Irhebhude (2020) also found it useful to support e-learning processes (p.4), although they pointed out that it falls short of addressing the perceived conception that learning is only continuous iterative dialogue between teacher and students, and that information cannot be transmitted without the inclusion of discussion, interaction, adaptation and reflection. This may disadvantage some teachers who may not be able to communicate with individual students in large learning spaces (typical in Nigerian universities, as discussed by Nwabude, 2020).

Another interesting example of such practical implementation of the framework was illustrated in a Malaysian study. Malek (2019) adopted the concepts of 'mediated learning' or 'making learning possible' (p.39) from the Conversational Framework by applying them to a mobile journalism course (MOJO). After applying four areas of communication to his tutorial and assignment questions - discussion, adaptation, interaction and reflection - Malek claimed positive results in the fields of Education and Community. In Education, for example, he found that students were more creative; assessments provided greater variety in and interest of experiences; critical thinking, planning, reasoning, reflection and action were inculcated in his students; and learners were able to critically review the outcome of MOJO and make improvements. In the Community area, Malek discovered that knowledge was integrated and that learning became more connected to real-life situations. Finally, there was more flexibility with time frames, so students were able work at their own pace.

The Carpe Diem Framework

This framework, developed by Gilly Salmon in 2000, is a collaborative, team-based online learning process which is now well embedded in university practice worldwide (Salmon & Wright, 2014). Considered by some researchers to be crucial for universities transforming their curricula and achieving a high impact on the ability to carry out strategic transformational plans (Sharpe & Armellini, 2019), the Carpe Diem model was developed

to facilitate the production of innovative, student-centred designs for online and blended learning. Early evaluations of the model provided positive feedback on its impact on course design, and it was praised as an 'enabler for pedagogic change' (Salmon & Wright, 2014).

The Carpe Diem 5 Stage Model continues to gain popularity because of, as one academic user stated, its value as something that can be put into immediate use with learners (Rintamäk, 2019; Mathews, 2019) - the vision, learning outcomes, action plan, schedule, activities, assessment and online environment of the course (Salmon 2019.) That said, other recent studies indicate that it is sometimes used as a mirror for versions whereby the six steps - blueprint, storyboard, protype, reality check, review & adjustment and planning - that were originally used in Carpe Diem activities are different, or at least modified for specific instructional design workshops (Andrade & Alden-Rivers, 2019).

As with most models, Carpe Diem has its opponents as well as its many advocates. For example, in a recent comprehensive study into VLE environments, Nwabude et al. (2020) pointed out several limitations with the model. Firstly, they claimed, teachers' support at various stages becomes a prerequisite element because the development of students learning along the philosophy of the model is linked to programme design and methodological constructs. This means, therefore, that teachers' constant contribution becomes fundamental for the success of the students (p.7). Furthermore, there is little guidance to measure appropriate levels of socialisation with the model which also ignores individual learning styles in its rigid design application (p.7).

The Flipped Classroom Framework

The concept of 'flipping' content first conceived Bergmann and Sams in 2012 has rapidly moved into mainstream education (Zeballos, 2015), and the model continues to receive publicity and acclaim. This may be due at least in part to an increasing number of high-profile publications in international journals in higher education (Flores, del-Arco, & Silva, 2016; Park, Yu, & Jo, 2016; Westerman, Daniel, & Bowman, 2016). The flipped classroom strategy aims to deliver instructional content by giving students access to video lectures delivered online, prior to face-to-face sessions, in order to allow more time for students to master concepts and participate in higher order tasks such as critical thinking, problem solving, debates and discussions. Abeysekera & Dawson (2015, p.7) further concluded that "learning environments created by the flipped classroom approach are likely to satisfy

students' needs for competence, autonomy and relatedness and thus entice greater levels of intrinsic and extrinsic motivation." These flipped approaches appear to take many forms, however which, according to Bates (2015) range from teaching and learning entirely in class to being delivered fully online.

Other researchers have analysed flipped classroom innovations in terms of the learning environment, and student self-efficacy beliefs; intrinsic and extrinsic motivation; and self-regulation (Bhagat, Chang & Change, 2016; Chuang, Weng & Chen, 2018)

A search of the literature located a number of case studies that provided a degree of insight into how academics successfully manage this environment. For example, a recent study by Awidi and Paynter (2019) evaluated the impact of a flipped classroom approach on the learning experience of students in an undergraduate Biology course. Awidi & Paynters' study reported positive signs of enhanced students learning with their flipped classroom approach. Comprising recorded lectures followed by online quizzes and in-class group activities, these researchers found that overall students were highly satisfied with the flipped approach and enjoyed participating with the flipped lecture group discussions in which they felt fully engaged.

The most persuasive description I found in regard to effective Flipped Classroom implementation and technology was a contribution to a 2019 'Next Generation Learning Spaces' report from Professor Nick Wailes from UNSW (University of New South Wales). Wailes described a flipped learning space - 'The Place' - which enables students to work in teams to solve new problems, apply their knowledge and develop the skills and capabilities that are needed to be successful in today's workforce (p.15). This flipped model focuses on best-practice design, especially in relation to technology which, while enhancing the experiences of students and educators, is more about the actual physical space and the orientation of the learners (p.17). The university's design also focuses on 'future proofing' the use of technology to meet the needs of students, "not only now, but in the future as well" (p.17). This success of this 24/7 flipped space, according to UNSW, is measured by capacity of staff using it (100%) and strong student numbers - despite lectures being available online with Echo360. Wailes (2019, p.17) described this as "a really strong metric," a reasonable assumption given the challenge of low flipped classroom

engagement numbers seen with this model (O'Callaghan, D. L. Neumann, L. Jones, & P. A. Creed, 2017).

Relevance of academic development frameworks to blended teaching practice

Overall, there is a degree of scepticism about whether blended learning frameworks live up to their authors' claims of helping universities better understand how to approach academic development by linking theory with practice (Andrade & Alden-Rivers, 2019), or whether, as Selwyn (2017, p.105) claimed, their popularity lies merely in their "inclusiveness and optimism." Bolander Laksov (2018), in her explanation of the complexities of the nexus between research and practice, provided qualified support to the view that the frameworks may be seen, in a sense, as a panacea for all that is broken in the field of academic development generally:

> *Theory, and not least the language used when talking about theory, needs to be legitimate, and this legitimatization is achieved through dialogue with practice, which can only happen if there is space in practice to allow for a link to theory (p.10)*

In summary, even if they were to meet the expectations and claims of their various authors that frameworks act as a conduit between theory and good practice (Reyna et al., 2015), the dearth of sound empirical literature in the area fails to provide reassurance that institutions embrace the skills identified by the various frameworks as necessary for effective academic development. Indeed, given a plethora of negative opinions by researchers, it is reasonable to assume that in many educational institutions blended learning is being delivered in a somewhat arbitrary, ad hoc manner and sometimes not effectively at all (Tosun, 2015).

Discussions focusing on the paucity of literature around blended teaching practice move logically into an exploration of what researchers have discovered about educators' use of technology in a practical sense. As such, the next section explores such themes as what technological tools educators use, why they choose the tools they do and how they integrate technology into their classroom practice.

Educators' Use of Technology: historical overview

The role of technology in education has become a topic of increasing debate and controversy in the last few years (Henderson & Romeo, 2015). A number of earlier studies claimed improved outcomes for learners (Clariana, 2009; L. B. Holcomb, 2009) and transformational educational practice (Doering & Roblyer, 2010; Schneckenberg, 2009). However, a wider body of research indicates that the benefits of technology are not being fully exploited. For example, Teo's (2014) observation of the 'lacklustre responses' of teachers in their use of technology, is echoed by Selwyn (2016b, p.2) who observed that "on a day to day basis the digital tends to be experienced as routine and unremarkable; it is crucial, therefore, that we are "inherently critical of the claims made about technology and education" (p.23) by asking critical questions about educational technology and scrutinising what digital technologies promise and can, or cannot deliver.

Indeed, some researchers are sceptical about the pedagogical value of technology to education. (Porter & Graham, 2016; Romeo, 2016; Selwyn, 2015a, 2016b. Romeo, in Henderson and Romeo (2015), for instance, discussing the current trend for teachers to move away from traditional teaching methods, ponders whether the prevailing practice is merely tokenistic, while Selwyn (2016b) questions whether technology is being used to engage current learners in any meaningful way, and whether teaching with technology is superior to traditional instructional methods. Similarly, Torrisi-Steele (2018 p.180) doubts whether technology has made a significant impact on HE education, stating that:

> *Despite the time lapse and many changes since digital technology came into the higher education scene, one consistent theme is that despite early promises of technology as a catalyst to transform teaching practice in higher education, change is minimal and, with the exception of a few outstanding cases, the transformation of academic teaching practices through use of technology has mostly failed to occur.*

A further point is that even if few teachers are using technology to enhance their teaching, most academics have integrated technologies into their teaching practice, nevertheless. Current blended learning practices indicate that despite doubts about the impact of technology (especially when one considers the hyperbole that heralded it), much effective and innovative work is being done with educators in the HE sector. Such innovations are discussed in the following section.

Educators' Use of Technology: current practices

Although extant literature highlights educators' usage of many different kinds of technologies, researchers agree that the Learning Management System (or LMS), the most commonly used technical tool in both HE and VET sectors in universities, is considered to have more impact on blended teaching and learning than any other tool (Palahicky, 2015).

The Learning Management System (LMS)

According to a blog post by Kinley (2017), statistics from Australian higher education providers in 2017 indicate that all then 40 Australian universities use some form of LMS. This was confirmed in a search conducted of 43 university Australian websites in 2019. Consistent with Kinley's statistics, this showed that 40 universities used some form of LMS; the exceptions for which I could find no information were Carnegie Mellon University in South Australia, the University of Divinity in Melbourne and the University of Notre Dame in Western Australia.

Blended teaching and learning affordances of the LMS

As is the case with blended learning models, a considerable amount of literature has been published on individual discipline or institutionalised-based case studies of successful outcomes of the LMS. Pullen (2015), for example, in a study at the University of Tasmania, was enthusiastic about the learning capabilities and outcomes of the customised learning management system, Desire2Learn ('MyLO'). Pullen claims that one obvious advantage to teachers is the user-friendly capacity of the LMS to deliver content for pre-lecture preparation; video uploads, for example, as well as scaffolding and navigation are relatively simple. These benefits have been reiterated by other academics, with the LMS being viewed by most as the principal delivery platform for the flipped classroom teaching model described previously. Pullen (2015) also argues that when unit module design is restricted to convenors, pressure is taken off lecturers in regard to the need for higher levels of expertise in technology and learning design, as well extra time for training and upskilling in the LMS itself.

Marshall (2020) cautions that the LMS should viewed through the lens of a response by the educational sector to technical integration, rather than as a pedagogical model as such. Sankey (2019) lent support to this perception; in a presentation on VLEs of the future, describing ways in which new generational technologies have led to new models of

educational delivery which are now being embraced by universities willing "to break with traditional forms of supply, to a more demand driven model" (p.2). Sankey is optimistic about the future of these new business models which, he claims, caught some universities "on the back foot", although" some are now awakening from their slumber...with the bolder ones not being afraid to mix their metaphors" (p.2)

A currently debated theme in the literature around the LMS is whether it enables differentiated instruction. Grounded in constructivist theories, this teaching approach involves meeting all learners' individual needs in diverse classroom environments (Millen & Gable, 2016). This means that teachers must be flexible in the way they approach students, rather than expecting them to adapt, or 'modify themselves' to the curriculum. Sankey (2019) argues that the LMS, with its new emerging technologies (e.g., 'mashups') can enhance student learning and achieve differentiated instruction. In contrast, a study by Rienties, Toetenel, and Bryan (2015, p.137) found that academics appear to design modules by designing activities which are assimilative in nature (i.e., content and cognition heavy) on a LMS "with an invisible blueprint in their mind." By employing various combinations of pedagogical principles, effective learning is not achieved to the same extent as those created in social constructivist environments.

In short, despite the proponents of the LMS, there are other researchers who question its learning and teaching affordances (Bain & Drengenberg, 2016; Gašević, Dawson, & Siemens, 2015). It is interesting to note that the literature on this controversial theme has remained consistent over nearly a decade of LMS use, as have other issues identified in this review.

Administration and the LMS

The literature shows that in the last two decades, the major players in the LMS arena (e.g., Blackboard, Moodle, Canvas and, most recently, adapted LMS-MOOC platforms) have become increasingly competitive, adding greater numbers of features related to academic administration (e.g. calendars, timetables, grades, tracking, attendance. etc). Consequently, notwithstanding the validity of claims about learning and teaching, the current LMS appears to play an ever more organisational or support role for face-to-face and blended programs (O'Brien, 2015) perhaps, as some suggest, at the risk of losing its pedagogical focus.

Torrisi-Steele (2018, p.181) built on earlier study by Pinantoan (2014) by arguing that the LMS is used by educators as "as an 'add on' to teaching contexts for reasons of access and efficiency," rather than them embracing new innovative capabilities that can be seen to improve teaching and learning (Pinantoan, 2014). Indeed, Pullen (2015) praised the management functions of the 'Desire2Learn' LMS which, he claimed, is used as an important resource for generating information about the level of student participation with the LMS. In this way, decisions can be made about how to best enhance their learning.

As discussed above, researchers such as Sankey (2019) disagree with the perception of the LMS as merely an add on, contending that new innovative capabilities actually improve teaching and learning. Sankey provides examples of innovative new tools and sophisticated functions that were criticised by users of earlier LMSs. Examples include responsive interactive solutions in Microsoft 0365 instead of what Ferster (2014) criticised as 'mere storage' or 'repositories' for information (Hil, 2012; Hodges & Repman, 2011; Lonn & Teasley, 2009), advanced functionality of Collaborate Ultra and Echo 360 for synchronous and asynchronous lecturing, described by Hil (2012) as 'mechanical modes' of pedagogy and useful LMS analytics course reports which were considered to be ineffective teacher and student monitoring and reporting (Pinantoan, 2014). In this regard, Sankey (2019) implies that earlier negative conversations from aggrieved academics around organisational uses of the LMS can, in the current LMS context, be re-framed pedagogically as achieving active, collaborative and authentic learning. Nevertheless, as Korhonen (2019) argued, LMSs are still considered by some academics to be insufficient for collecting and sorting all learning material and processes. This means that learning artifacts remain on university LMS servers and cannot be exported to another system; thus, the LMS in this way, may not adequately support lifelong learning (p.756).

Mobile Learning and the LMS (m-LMS)

Unlike with issues around organisation, many researchers praise the dramatic and remarkable shift from desktop to mobile devices delivered via the LMS ('m-LMS'). This has resulted, they claim, in major architectural changes to the way in both students and educators interact with their institutional LMSs to extend traditional classroom pedagogies (Bringula et al., 2018; Crompton & Traxler, 2019; DaCosta, Seok, & Kinsell,2019) with 'on the move' learning and teaching (Han & Shin, 2016). According to Sankey (2019), older

systems such as Blackboard, as well as newer platforms like Canvas, have driven this change. This claim is supported by authors into mobile learning and teaching who describe successful case studies into the benefits of instant mobile access to information on the LMS (Al-Shihi, Sharma, & Sarrab, 2018; Saroia & Gao, 2019). However, a Swedish study by Saroia & Gao (2019) found that an m-LMS does not necessarily guarantee that students use it in their daily lives (p. 570). To address this, these educators developed a research model based on the technology acceptance model (TAM) technology adoption theory.

Examples of the m-LMS adoption that is endorsed by LMS vendors and integrated into their systems include a myriad of gamification tools. This is demonstrated by the dramatically expanding suite of educational quizzes currently dominating learning management systems worldwide. Two of these tools, *Quitch* and *Kahoots*, are discussed in later in relation to the data in this study.

Social Learning and the LMS

A social learning management system also called an Educational Social Network - EduSN - (Calegarie, Avogadr, Meluso & Dominio, 2019) is described as a tool which by promoting social interactions allows universities to supervise and guide students' learning. When integrated into a standard LMS, a change in paradigm occurs whereby the main source of information is no longer restricted to a small group of teachers and students, but is open rather to the whole student community

Calegari & Dominoni (2016) considered three different roles that students can assume in a social LMS: formal, social and editorial roles (p.203). The formal role relates to academic success of learners (e.g., grades). The study examined the impact of a social learning LMS within the context of a flipped learning project. In this context, the researchers claimed, 'knowledge flow' which underpins the concept of social learning can be clearly illustrated. For example, in a 'normal' flipped HE lecture the video content often does not attract large numbers of students - in this respect, therefore, even high-quality video content and popularity are not well matched. When mediated by a social LMS, however, Calegari and Dominio (2016) found that accuracy of knowledge amongst participants, their reactions and, in general, "the propagation of information" (p.212) could be more accurately controlled.

Another project designed by Salam, Mee, Ee & Hashim (2018) examined social learning LMSs through a MOOC for learning Mandarin. This Malaysian study investigated whether a social learning approach on an LMS could improve student engagement, and what social learning strategies could be implemented to achieve this outcome (p.583). Salam et al. found that social learning strategies were effective in students' engagement with lecture videos and discussion forums in particular. They also concluded that MOOC completion rates increased after the introduction of these new learning strategies, highlighting that 256 students finished the course (100% completion). The MOOC social learning, they felt, built a sense of community; lessened student's feelings of isolation in online learning and provided possibilities to learn from others. Salam et al. (2018) qualified their results, however, pointing out that the scope of their research did not cover motivation, either intrinsic or extrinsic.

The Future of the LMS

Described as one of the most significant 'connected digital technologies' of the third age (i.e.,1990s) of educational technology, the LMS still does not appear to have 'revolutionised' or 'democratised' education, or at least not to the same extent as promised (Henderson & Romeo, 2015, p.163). Lal (2015) contended that the current trend of many institutions to move to cloud based LMS systems relates less to learning than to efficiencies such as cost flexibility and scalability, support, accessibility, integration and data than learning. Sankey (2019) disputes this by highlighting the tension between individual tool set choices and the need for universities to enact sustainable systems at scale. Sankey (2019) claims that the LMS of the future has developed (out of necessity) a far more eclectic approach to pedagogy, and that the LMS offers great opportunities to engage and collaborate. This is underpinned by the emergence of collaboration spaces provided by vendors such as Blackboard ('Collaborate Ultra', 'Blackboard Analytics Course Reports, Assessment Rubrics), and Microsoft (0365, Teams) which, Sankey claims, afford "far greater emphasis on quality practices" (p.5), offering benefits that break with traditional forms of supply and move towards a more 'demand-driven' model (p.2).

Another factor which appears to have contributed to an optimistic view of the LMS focuses on the functionality of Learning Tools Interoperability frameworks or 'LTIs' as a technical integration response (García-Peñalvo et al., 2017; Manzoor 2019). These tools and related pedagogical concepts are predicted to enable educators to think outside the constraints of

early ('first generation') learning management systems, and hence presumably influence educators' perceptions of the functionality and pedagogical value of tools from one LMS to another (Curran, 2018).

The contemporary consensus is that the LMS, regardless of the debate around the pedagogical versus the management benefits and outcomes, is today an essential component of academic teaching and it is likely to remain so – albeit in different iterations – for the foreseeable future (Lal, 2015). Sankey (2019), while emphasising the current prevailing need identified by the wider academic community for a preference of pedagogy before technology, is positive about the VLE of the future. Sankey lists a number of potential benefits of the LMS such as active and authentic learning, collaborative learning, and the opportunity to access synergies provided by what he describes as a group of "innovative research universities" (IRU) which comprises a visionary network of institutions "committed to inclusive excellence in teaching, learning and research" (p.11). On a more cautionary note, however, Selwyn (2016b, p.21) reminds us that we need to question what happens to teaching and learning when systems such as the LMS dominate student and teachers' educational lives, and "what is being ignored (or lost altogether) in the rush to adopt them." Anderson (2019) agrees, making the point that good blended learning practice should be about matching student needs with educator skillsets. The only way to achieve this, she claims, is to align the learning context around educators and their ability to design content, rather than setting up sophisticated interactive websites.

Non-LMS technologies and teaching practice

As previously stated, and is evident throughout this review, much of the literature around blended learning and teaching focuses on student perceptions and outcomes rather than teaching practice (see Chapter 2). This provides important insights into the apparent lack of academic publications on teacher (rather than students') use of technology. Some researchers claim that research frequently comprises qualitative case studies which may not necessarily represent what happens in blended learning classrooms in a wider context (Bulfin, Johnson, & Bigum, 2015; Henderson & Romeo, 2015; Reeves, 2017). Phillips, in Henderson and Romeo (2015, p.318) pondered whether these cases were merely "state of the art" examples or rather "state of the actual." However, there is a growing body of research that challenges this view. In the Next Generation Learning Spaces 2019 report

(cited previously in relation to the flipped classroom model), four senior academics from learning and teaching units across Australian universities showcased their innovations. These included conversations around how to ensure that technology integration is robust, quality driven and enthusiastically embraced by educators to achieve best bended teaching practice (Monash University); examining where technology can play a strategic role in connecting students through shared learning experiences and "reminding educators about the learning - or the why" (University of Technology, Sydney); developing pedagogical strategies that increase student participation, improve assessments and link with tools that allow educators to look at data they generate (University of Sydney) and, as described previously, the design of technology - rich learning and teaching spaces to integrate with a Flipped Classroom model - "The Place - Peer Learning and Creative Exchange" (University of New South Wales).

One innovative form of technology related to current blended teaching practice which is evolving outside the LMS is learning analytics (University of Sydney). Professor Abelardo Pardo (UNSW, 2019) states although the most common data source is the LMS, this data is insufficient and needs to be integrated with other data sources (e.g., student information systems). Pardo explains that by combining several sources they can obtain better insights to align with learning outcomes. Examples provided for sources outside the LMS are initial enrolment information, student feedback surveys, information about number of course by individual students and average scores.

Technical tools most used by educators

Research thus far on academic practice with technology has concentrated on LMS tools that are used more frequently than any other technological tools (Mestan, 2019). Mestan (2019, p. 72) listed the most popular LMS technologies used by educators engaged in her study: these included online quizzes; assignment submissions; audio-visual content; live and recorded lectures; interactive activities; discussion forums; assessment feedback tools and content modules.

Lecture Capture tools

Mendan (2019, p.75) described a plethora of different approaches to lecture recordings which included 'teachers speaking at their desks' or uploading lectures with audio

enhanced PowerPoint slide presentations. The most common form of this type of lecture, however, is the LMS-integrated tool Echo 360.

Echo 360

Compared with other technologies related to blended learning and teaching, research into the practical use of lecture-capture by educators is prolific, relatively easy to locate and appears to present "a diverse and highly contested area of knowledge" (Dona, Gregory, & Pechenkina, 2017, p.2). Nevertheless, there are a number of interesting tensions in the literature which highlight a degree of incompatibility between the perceptions and goals of students and educators (Bulfin et al., 2015), as well as its impact on learning and teaching processes.

In regard to educators' attitudes, Price and Almpanis (2015) found lecturers to be positive about lecture recording as a preparatory resource for assessments. Others have questioned the benefits, expressing concern that students' studies might suffer from watching a recording rather than attending face-to-face lectures (D. L. Neumann, L. Jones, & P. A. Creed, 2017; O'Callaghan et al. (2017)). This concern appears to be unsubstantiated, with studies by Marchand, Pearson, and Albon (2014) and Yeung, Raju, and Sharma (2016) arguing that few students use lecture recordings as a substitute for class. A final concern noted by Dona et al. (2017, p.3) is that lecture-recording impacts the way educators structure their lectures and, that by having to adopt a more didactic style of teaching, they feel more self-conscious and less spontaneous in the classroom.

Currently, according to the research, lecture-capture technology appears to be a complex, much debated and not well understood topic in terms of its impact on learning and teaching processes. Overall, the studies highlight the need for further research into Echo360 and similar tools in regard to interactivity and the possibility that more constructivist learning may occur in the future (Kinash, Crane, Judd, & Knight, 2016).

YouTube

Described as an example of social media that encourages the formation of social relationships (Moghavvemi, Sulaiman, Jaafar, & Kasem, 2018, p.37), usage of YouTube has increased in the last decade and, according to Alexa (2015), is now the third most visited website in the world, after Google and Facebook Firstly, YouTube provides online access

to immeasurable numbers of free public videos for relevant content across all faculties and the convenience of selecting a YouTube video allows teachers more spontaneity in planning instruction (Moghavvemi et al., 2018). Secondly, it is relatively easy for educators to embed self-created, customised videos into online course material or to provide links via YouTube channels; these automatically collate, organise, host, and distribute the video resources which can be separated into playlists organised by subject or date and content description. This list of the affordances of YouTube as an instructional tool is neatly summarised by Szeto and Cheng (2014, p.55) who categorise it as "informational affordance," concerning teachers searching for information of their subject, "demonstration affordance" relating to selecting, demonstrating and retrieving information from YouTube videos and "open-ended constructivist affordance'" which relates to active, student-directed workspaces.

YouTube is considered by academics to be useful for understanding concepts, a pedagogical aim which is supported by a growing body of research. For example, YouTube clips in Health faculties are integrated frequently to demonstrate medical and surgical procedures (Madathil, 2015) as well as in the areas of Arts and Social Sciences (Raj, Ann, Subramanian & Yunus, 2019); Mathematics (Loch & Lamborn, 2016); Chemistry (Liberatore, Marr, Herring & Way, 2019); and across English as a Second Language courses (Forsythe, 2015; Wang & Chen, 2019).

YouTube clips used this way are considered to be valuable resources for flipped classrooms Mussarrat, Loch, and Williams (2013), addressing the problem of the limitations of too many students accessing maths tutorials, conducted a study by producing screencasts uploaded to YouTube which focused on scaffolding with an instructional design model aimed at avoiding a didactic pedagogical style. In a later study, McLoughlin and Loch (2016, p.818) claimed that their self-regulated model (SRL), enables students to learn successfully because they are "motivationally, behaviourally and cognitively active, able to set goals, plan their own learning pathway and monitor their understanding." From an analysis of the literature, these authors have promoted the use of YouTube Maths screencasts in many high-profile publications and conference papers, although again the emphasis is frequently more on positive implications for students rather than the challenges facing educators.

Although it is difficult to predict just how far YouTube will progress as an instructional tool, it seems that educators are increasingly engaging with its new features as they are continuously added. With the compilation of educational channels into "YouTube EDU", for example, educators can search the site's most popular informational videos (Hua, 2015) and YouTube videos can be customised in many different ways (Moghavvemi et al., 2018). The benefits of YouTube seem to be not always the reality in the classroom however; an academic in Shelton's (2016) study into technology use by teachers stated that her students saw YouTube clips as a "lazy" and "clichéd" way of teaching and, although she still used the videos subsequently, she presented them "apologetically and ironically" (p.12).There is a paucity of literature into the way in which teachers use YouTube clips and it would be useful to be able to ascertain whether YouTube is actually used as part of higher order conceptual or metacognitive learning processes or merely as a supplementary (or even diversionary) resource.

The Impact of Academic Development

The high degree of complexity and uncertainty around factors impacting blended learning and teaching is reiterated in the literature around academic development which has attempted to explain a number of interesting tensions and inconsistencies. Much of the current research into academic development in universities has noted confusion around the following issues:

- the concept of academic development.
- contextualisation around blended teaching practice.
- academic development programs.
- the role of academic developers (ADs) and their relationships with educators and managers; and
- institutional support.

Notwithstanding the degree of dissention in the literature in regard to all these factors, two areas of consensus amongst researchers can be firmly established: firstly, that academic development is an abstruse topic that is difficult both to define and explore and, secondly, that it significantly impacts blended learning and teaching. The issues listed above, together with their relevant literary sources, will be discussed in the following paragraphs.

The concept of academic development

This is reflected in dissention relating to researchers' claims about what academic development means. While some earlier studies such as those by Bath & Smith (2004) and Macdonald (2003), defined the field as a legitimate academic discipline, other researchers have found this is not the reality, with academic developers in universities frequently recruited from professional rather than academic staff (Fraser & Ling, 2014). De Paul (2016), in an interesting blog related to 'Transforming Higher Ed,' provided some relevant insights from Eddie Maloney from Georgetown University in the USA. Maloney, in an interview with De Paul (2016) emphasised the need for a broader academic definition of the field which would integrate learning design, technology, analytics, policy and leadership in higher education. This could be achieved, he claimed, by a better balance of research and scholarship with theory and the sharing of best practice. According to Maloney, arriving at an effective definition is more about ongoing critical conversations in regard to academic development around "its current role, the key players on campus and off, and how we believe it could be shaped to provide the best possible learning experience for students in the years to come." This emphasis on the need for critical conversations about blended learning and teaching was endorsed by a wide body of the literature (Henderson & Romeo, 2015; Selwyn, 2015b, 2016a, 2017).

A lack of consensus on what academic development signifies is common amongst researchers and Jones, Lygo-Baker, Markless, Rienties & Di Napoli (2017) state that without a clear understanding of the concept "the value of [such programs] is likely to remain in question" (p.117). A number of studies have concentrated on the development of online resources which are informed by technology and driven by the implementation of e-learning agendas in universities (JK. Mitchell, Simpson, & Adachi, 2017). In regard to the latter issue of where technology fits in the academic development context, again there appears to be dissention in the literature as to whether this should be considered as part of an academic discipline or rather an area to be "disrupted and disruptive" (Barlex, Givens, & Steeg, 2015, p.304).

Saroyan and Trigwell (2015) warned against using the many terms describing academic development synonymously, arguing that this makes it "difficult to make sense of findings and to generalize based on a cumulative body of knowledge" (Saroyan & Trigwell, 2015,

p.93). While this observation seems logical, other researchers argued that the literature needs some kind of 'catchall phrase' such as that of 'professional development.' (Leibowitz, Bozalek, Van Schalkwyk, & Winberg, 2015). Therefore, Saroyan and Trigwells' (2015) comment that using the terms 'development' or 'developers' at all may undermine the role and agency of academics in the development process does not appear to add value to the conversation around definitional difficulties and could arguably be perceived as more a matter of semantics.

Contextualisation of blended teaching practice

The lack of appropriate contextualisation of academic development is a further significant topic in the literature, with Roxå and Mårtensson (2017, p.95) describing ADs as "homeless and in a need to situate [themselves] historically." As these researchers further explain, the field of academic development lies in a transitional space of 'between-ness' (p.104), in which staff and educators alike are subject to the power dynamics of universities. The question they pose is whether ADs 'liberate' academics or are 'part of a machinery suppressing them.' In an equally strongly expressed view, Peseta (2014, p.66) claims that having 'lost its way', the field of academic development has resulted "in the goods of our professional judgment – expertise and scholarship – [being] subject to institutional capture both for good and ill."

Impact of academic development programs on blended learning and teaching practice
Despite a comprehensive review of the literature in this field, the answer to the question as to what makes academic development effective remains vague and, as Jones, et al (2019) argue, its impact cannot be effectively investigated without a shared understanding of what academic development means. As mentioned previously, this relates to claims by Selwyn (2016c) that binary questions are not always useful in terms of the effects of technology in education. In conceptual studies, the focus is on the design of the process. Maines (2019) supports this view, pointing out that design was the key to the 'overwhelmingly successful' UNSW flipped model described previously. Universities, Maines stated, are concerned about a much needed shift in professional development and 'The Space' project, by training faculty staff in their new learning spaces, succeeded in realising such a change from more traditional forms of teaching.

Lack of clarity does not mean that nothing is being accomplished in the area of design of academic development tasks. On the contrary, in addition to the example described above, an increasing number of studies in regard to concepts and processes related to design have emerged (Boling, 2017; A. Brown & Green, 2018; Fortney, 2016). A. Brown and Green (2018), for instance, while acknowledging 'historically successful' cases describing modes and programs, provided a comprehensive summary of the literature of design around a number of specific subject disciplines. One significant design strategy they described is "next generation design method[s]" (p.177) such as those discussed by Gibbons, Boling, and Smith (2014) which are showcased in the 2019 Learning Spaces report cited above. These design models are reportedly particularly useful for new developers faced with mastering design patterns and approaches although, as Brown and Green (2018) explained, as models gain popularity designers may become limited in their approach and thus become isolated from alternative views of design.

The role of academic developers and their relationships with educators

A large and growing body of literature is investigating the role of specialised practitioners who advise and support educators with their blended learning and teaching practice in universities. These 'academic developers' or 'ADs' (as I will call them in this thesis are also described as 'instructional designers,' 'educational technologists' (Ritzhaupt & Kumar, 2015), 'technology enhanced learning (TEL) advisors' (K. B. Mitchell, 2016) and 'edvisors' (C. Simpson, 2018). These staff reportedly work in what Whitchurch (2008) first described as a "third space" professional environment, i.e., a space which overlaps "traditional professional and academic domains within HE" (K. B. Mitchell, 2016). Researchers claim that this complex and hybrid space leads to tensions and instability amongst these developers which potentially disempowers them, thus preventing them from building relationships with key institutional stakeholders (Fraser & Ling, 2014).

K. Mitchell et al. (2017) explored the various definitions and practices of 'TEL advisors' working within three main areas of the third space: development, design and technology. In an examination of 37 job descriptions relating to TEL workers, these researchers identified seven duties expected of ADs: "train, research/evaluate, support/advise, design/develop, and lead/manage" (p. 149). This study, however, was largely descriptive and made a number of assumptions from which they could not generalise even within their

sample of 13 Australian universities. For example, it is difficult to accept the implication of a causal relationship between vague position descriptions and the suggestion that HE institutions do not value these support roles, or that TEL advisors' reputations were in some way damaged with other stakeholders. Nevertheless, the research was valuable in that it identified challenges in universities acknowledging the work that ADs carry out and the tensions with other stakeholder groups such as educators and those in leadership roles.

The relationship between ADs and educators appears to be less well covered in the literature than other areas related to this topic. Simpson in K. Mitchell et al. (2017) believes that the choice of the label applied to academic developer roles is significant because it relates to the way in which educators (as well as institutional managers) view them. In the article cited above (K. Mitchell et al., 2017), Simpson explained that the authors' carefully considered choice of 'TEL advisor' over 'academic developer' in their study implied a greater degree of expertise and skill in regard to technically enhanced learning than the somewhat esoteric label 'academic.' This, in turn, raises their profile. The connotation of 'academic' in terms of describing these support roles, underplays the role of 'edvisors' and creates a 'status gap' between them and educators. As C. Simpson (2018) blogged:

> *Our early discussions about a name included variations on Teaching Support Staff but it quickly became clear that "support" carried a certain amount of negative baggage for many edvisors and was seen as downplaying our contributions.*

A further problem is a trend in Australian universities of professional staff being referred to as 'non-academic' staff – defining them by what they are perceived to lack. Fraser and Ling (2014) claimed that this has implications in regard to the field being seen as a legitimate academic discipline. C. Simpson (2018) countered that this is 'fortunately rarely the case anymore', although further studies by Geertsema and Chng (2017) and Roxå and Mårtensson (2017) concluded that ADs were indeed frequently undervalued by academics.

Centralised vs faculty-based learning and teaching units

A common problem highlighted in the research is that institutional leaders, by not acknowledging the skills and expertise of academic developers, often fail to provide the level of support necessary for them to effectively plan and deliver professional development tasks (Carbone et al., 2019). Some researchers attribute this to the pattern

adopted by many universities to centralise support resources while simultaneously decentralising curriculum and educators. Legon and Garrett (2017) cautioned that this model, while stable, is low in innovation, so "little to no attention [is given] in the research to instructional designers, their roles, or their influence in pedagogy and curricular decisions (see also Drysdale (2018, p.30).

While I was unable to locate further research related directly to the pedagogical affordances of positioning of support centres for academic practice, Legon and Garrett (2017) suggest that the general organisation of program delivery and management may impact the role, function, and initiatives of academic development staff. Andrade (2016) agrees, noting that management usually prefers a centralised approach which is cost-efficient and easier to control but which sacrifices the opportunity for collaboration between faculty and development/support staff. These views were further echoed by Dee and Heineman (2016) in an analysis of the factors affecting the design of academic development programs. These researchers proposed a conceptual model aimed at navigating the issues around university 'organisational contexts' (e.g., cultural, structural and power distributions) with the 'decision contexts' (e.g. decision scope, type and the stakeholders impacted). While Dee & Heinemans' (2016) study provided a useful overview of these crucial factors, it may be seen to be somewhat limited by its narrow focus on academic units in not exploring the many complexities of structure, policy and faculty culture related to academic development practices and ADs' roles.

Necessary skills for successful academic development outcomes

The literature generally concurs that effective strategic academic development initiatives are crucial if educators are to teach successfully in a blended format (Bates, 2018; Jones, Lygo-Baker, Markless, Rienties & Di Napoli, 2017). When such opportunities are lacking, educators fail to implement effective blended teaching, tending rather to replicate conventional teaching methods and continuing to employ hegemonic instructional practices (Garrison & Vaughan, 2013). The alternative, as Martins and Nunes (2016) see it - i.e. misalignment with policy, uneven implementation of e-learning experiences for educators and unsupportive management - is 'inimical' to the confident adoption of technology into teaching practice (p.316).

Relevant to the discussion above in regard to role definition of ADs, researchers have differentiated between the need for both pedagogical skills and new technological skills to deliver effective blended teaching (Mestan, 2019; Pates, 2016; Sankey, 2019). Pedagogical skills are necessary because educators need to be able to differentiate between instructional methods which support face-to-face teaching and those which are unique to the blended model. Working within faculties, educators need to upskill sufficiently in technology and "exploit [it] to design innovative experiences which help students not only to learn better but to learn more dynamically" (Torrisi-Steele, 2018, p.195).

External factors impacting blended teaching practice

Researchers identify extrinsic factors which are perceived to impact educators' effective blended teaching by what educators cannot control (Carbone et al., 2019). The main extrinsic factors I identified in the literature which are relevant to this thesis are the changing educational landscape; unbalanced academic workloads; lack of effective leadership; unsupportive institutional cultures and tensions between VET and HE education. I will review the literature related to these themes in the following paragraphs

Academic workloads

Loughlin (2017, p.335) found that institutional policies and procedures had a negative impact on some academics, "generating active hostility towards anything that would not feed directly into either better performance metrics or career prospects." This resonated with current literature around educators' dissatisfaction with academic workloads which, according to Coetzee & Smit (2019, p.75), have increased in the past 20 years due to a number of changes such as increased managerial control, greater competition with other tertiary institutions, an increase in the number of audits being conducted, and the remodelling of day-to-day activities and operations to resemble corporate organizations. The most significant challenge, however, is considered to be time to integrate technology into face-to-face teaching, a conversation which appears to have changed little since it was raised as a challenge in studies over a decade ago by Humbert, 2007; Lewis & Abdul-Hamid, 2006, and Napier, Dekhane, & Smith, 2011). As well as time taken to modify face-to-face teaching with the integration of technology, the literature shows that many educators feel that blended teaching comes at the cost of research activities.

Universities do not adequately acknowledge or support academics' perceptions of being time poor (Carbone et al, 2018). Hil (2012), for example, observed that "many academics feel exploited in a system that demands more than the working week can deliver" (p.139), with the result that they are unable to devote quality time to teaching and research, wasting time and energy rather on administrative duties, existing therefore "in a generalised state of existential malaise" (p.11). Providing what one reviewer described as "a passionate description of the sorry state of Australian universities" (Polya, 2012), and promoted by its publisher as a 'scathing insider expose of Australia's current higher education system,' Richard Hil's book "Whackademia" perhaps lacked validity in that much of the information was (by his own admission in referring to his work as a 'polemic'), largely drawn from newspaper articles as well as blogs and various university and government websites. Nevertheless, (Hil, 2012) provides an extensive reading list and his ideas resonate with much of the other research in the area.

In what appears to be general agreement with most of the literature, Gregory and Lodge (2015) reiterated the impact of academic workloads on 'technology enhanced learning (TEL) strategies, describing them as an 'often silent barrier' to the uptake of technology in higher education courses (p.210). Floyd (2016) criticised the pedagogical implications of the higher focus on research over teaching which, they claimed, is typical of most universities and is not adequately addressed. Most institutions, these researchers argue, fail to acknowledge the issue of imbalance which results in less value being placed on teaching as well as "evidence of scepticism about the increased use of technology in a teaching context" (p.213). Not surprisingly in the current educational climate, studies concur that the problem of too many time commitments is frequently considered to be associated with technology, with time to upskill in and integrate technology into classroom practice found to impact blended teaching more than other institutional factors (Carbone et al.; 2019; Porter & Graham, 2016). A further issue identified by Selwyn (2017, p.186) is that university policy mandates the use of technology – it is "handed down", he complains, "under a number of wider imperatives of economic efficiency, future employment needs or vague notions of modernisation and effectiveness."

Academic leadership

Background to the leadership debate

The concern expressed in the research about lack of management knowledge of and expertise in academic development focuses on those in institutional leadership roles who are responsible for designing and implementing programs. Harris, Martin & Agnew (2004, p.4) pointed out that while some research had focused on leadership practices in HE, little research has focused on the means for increasing effectiveness, particularly at the departmental level' (2004, p. 4). This seems to be an historical problem, with a study by Bryman (2007) raising a similar question about what styles of or approaches to leadership are associated with effective leadership in higher education - a subject which attracted "surprisingly little empirical research" (p.693). Floyd (2016) agreed, suggesting that, despite the pressing need for HE institutions to develop and support managers, research into the area is "surprisingly sparse" (Floyd, 2016, p.167).

On a similar note, Lumby (2012) highlighted the dearth of observation of practice, claiming that much of the research around leadership reports what leaders *do*, with the most common reference relating to vision. While this is clearly needed, she stated, there is little evidence of its practical creation or impact. Lumby stated that "summaries of actions other than vision tend to the general and positive and are in many cases ambiguous. This may be in part a result of self-reported methods and of generalising across varied roles in different contexts. We know little about the detail of practice" (Lumby, 2012, p.1).

Power and leadership

More recently, Lumby (2019) explored the concept of power as being 'omnipresent,' and an essential component of leadership; her study explored how a sample of higher education leaders in the United Kingdom engaged with and used the many complex forms of power which "are often denied or obscured by a range of strategies" and occur in an environment which is "often hostile to leadership" (Lumby, 2019, p.1619).

The frequent and pervasive disapproval of leadership in relation to power is discussed in an interesting paper by Shepherd (2017), who argued that "the ubiquitous and strongly pejorative adjective of managerialism" (p.1620) is often applied to leadership in higher education. Shepherd (2017) stated that although the concept of leadership is understood

to mean many things, the use (or misuse) of power is a defining feature. This is manifested firstly in increased control and regulation of academic work by managers and, secondly, in a "perceived shift in authority from academics to managers and consequent weakening of the professional status of academics" (Shepherd 2017, p.1668). Marini, Videora and Carvalho (2016) echoed Shepherd's view on academics' resistance to what they perceive as managerialist forms of power. Videora and Carvalho (2016) describe HE staff as 'subjugated' and 'demoralised', who "perceiving a decrease in the control over their own work due to the increasing presence of non-academic managers" (p.1), nevertheless continue to resist the incursions of management.

Contemporary Views

Notwithstanding the negativity seen in some of the extant literature into academic leadership as cited above, there are more positive views, frequently in the form of models. New Zealand researchers, Flutey, Smith and Marshall (2017), presented a Virtual Central Support Unit (CSU) model which was developed to address organizational development and support in the way in which their university (Victoria University) engaged in administration, teaching, and research. The model, focusing on flexible, virtual teams that functioned as consulting teams within the university, was praised for its success in helping their university achieve its wider operational and strategic objectives, particularly in relation to professional development. In this area, the model led to the creation of new services and innovations that helped raise the awareness and accessibility of HE staff, while avoiding the costs of formal restructuring. Fluet et al. (2017) found that the implementation of the CSU model highlighted ways in which universities could address what they referred to as 'wasteful and rigid structures of traditional siloed groups' and thus contribute to corresponding positive changes in universities across the wider educational community.

With a slightly different approach, Dopson, et al. (2019) expressed doubt about the efficacy of models of leadership development which they described as small-scale, fragmented and often theoretically weak (p.218). In response to this issue, Dopson et al. argued that what the research community needs are a new theoretical approaches for designing learning activities in the HE sector. However, because the outcomes of learning design are not always linear or progressive, a broader set of theories and methods is needed. This goal can only be achieved by studying underpinning factors that support team and

organisational development and effectiveness, and by understanding leadership in different cultural contexts (p. 225).

Institutional culture

Trowler (2008) in an early study claimed that institutional cultures are generated and sustained at departmental level, thus the department "is the central locus of cultural enactment and, importantly, construction in universities which are, inevitably, extremely culturally complex organisations" (Knight & Trowler, 2000, p.69). With this definition, then, institutional culture can be viewed as being at least in part "initiated and influenced by academics on the ground" (Floyd, 2016, p.29), a statement which, as stated above, is generally supported by the research in the field. Such an assumption that institutional culture is embedded at department level is prevalent in the literature because, as Floyd (2016) argues, culture is not necessarily shared throughout the entire university because a diverse range of sub-groups can have equally distinctive cultures which are shared only within that cohort; it should be viewed "through a temporal lens," so it can be viewed as a dynamic, ever-shifting process which has been influenced by "historical events" and constant changes in individual and group behaviours (Floyd, 2016, p.29).

A considerable amount of literature has been published on the myriad factors that contribute to positive institutional culture. Fotinatos (2016), in one of relatively few studies focusing on academic development in the VET arena, listed powerful factors such as "achievement, recognition, responsibility, advancement, learning and the type and nature of the work" (p.5), whereas Hechanova and Cementina-Olpoc (2013, p.13), in a comparative study of higher education and corporate organisations, defined institutional culture in more academic terms as "scholarly engagement, shared governance and decision making, and rationality."

The theme of organisational change was commonly linked with academic culture which is seen to affect educators' motivation, professional learning and the function and impact of training (Cameron & Green, 2015). An enlightening book amongst what I perceived as otherwise somewhat convoluted resources about institutional change was published by Elsmore (2017) who directed his study not to an understanding of leadership as such, but rather to an attempt make sense of the impact of some of the strategies and behaviours shown by organisational leaders on staff. Elsmore (2017) also highlighted an issue with

confused applications and meanings of the term 'organisational culture' which, he claims, vary along a continuum from patterns of behaviour common to everyone to attempts by senior managers to "set not only the organisational agenda for action but also its *modus operandi* (p.7).

Studies such as that by Elmore (2017), although sometimes carried out in the corporate sector, are also relevant in terms of styles of management and factors impacting change in higher education institutions; the literature here also suggests that positive culture in is not always the norm, with many universities involved in continuous change (often as the result of technological developments). Carvalho and Videira (2019) in a Portugese study claimed that even where there are reforms in HE, these may "result in changes in organisational structures with an increasing number of non-teaching units and replacement of a collegial model by a more top-down one" (p.766). Consequently, as Floyd (2016, p. 29) states, universities sometimes operate in "cultures of institutional neglect" rather than support. This is not to suggest, however, that such cultures are all-pervasive. Indeed, recent literature suggests that hegemonic challenges of organisational structure in HE are being addressed by innovative approaches to equity and diversity (Mercer-Mapstone & Bovill, 2019) and models for "shattering traditional disciplinary boundaries" by integrating disciplines and eliminating organisational silos (Power & Handkey, 2019, p.554).

The HE and VE Debate

Historical perspectives and background

Literature related to differences between the Vocational Education and Training sector (VET) and Higher Education (HE) revealed the biggest gap of the themes in this thesis. Research suggests that VET education has traditionally been lower in status than that of HE, historically regarded as "second best, a place for other people's children" (Lucas, 2018, p.129). The reasons for such negative perceptions of VET education - what Lucas (2018, p.138) calls its "impoverished legacy" - are largely historical and it is interesting to review the scant body of research available to set this in context, particularly in Australia which differs in a number of ways to VET institutions in other countries.

An analysis by Sych (2016) examines the dichotomy between VET and HE courses posing the question as to whether VET can be promoted to equal status with HE and, if so, how

this would translate into policy making throughout the two sectors, particularly when they have been "on opposing sides for many years" (p.45). Billett (2014) dated examples of this historical context back to the Middle Ages, explaining that lay members in monasteries carried out manual work, leaving ordained monks and nuns time to engage in study and religious contemplation and pursuits; similarly, tradespeople and crafters were seen as having less intellect, lower abstract thought and problem-solving abilities. This appears to be a worldwide trend and, despite ongoing and increasing efforts by universities to promote VET courses and give them reputational parity with HE, an underlying negative discourse still prevails (Leach, 2017).

Characteristics of VET educators

As mentioned previously, in a review of perceptions of teaching in the complex VET environment, R. Hämäläinen, De Wever, Malin, and Cincinnato (2015) listed a number of crucial characteristics which they consider to be necessary for educators teaching with technology. These include a particular awareness of the demands and expectations of younger VET cohorts than in HE; the need to understand new blended contexts such as technologically enhanced classrooms and virtual reality; an awareness that traditional teaching methods are transitioning to more of a coaching role and to facilitating interaction rather than being a source of knowledge. Consequently, Raija Hämäläinen and Cattaneo (2015, p.137) claim that:

> *In the future, increasing emphasis needs to be placed on the importance of teachers as pedagogical experts and on their influence in triggering students' learning processes via feedback and feed-forward in the emerging technological settings that mediate teacher–student interactions.*

Regardless of institutional culture and approaches of universities, the focus on both VET educators and their teaching strategies in regard to technology appears to be the principal driver in impacting dual sector pedagogy.

Current perspectives

The 'manual versus mindful' notion, with its implication that "vocational qualifications are still seen as the route for those who cannot succeed in the academic arena" (Lucas, 2018, p.146) still prevails to some extent amongst participating cohorts - teachers, education policy makers and parents, but this attitude is changing. The nature and purpose of higher

education is gradually being reframed, with universities worldwide facing increasing governmental pressure to equip graduates with broad 21st century digital skills (van Laar, van Deursen, van Dijk, & de Haan, 2017) and to move towards pedagogical strategies that embrace 'work integrated learning' (Ferns, Russell, Kay, & Smith, 2016).

Current research appears to be increasingly concentrating on the significance of vocational training in higher education and, as a result of this pedagogical change in thinking, researchers are proposing that the dichotomy between HE and VET education is now 'artificial' and that a more helpful approach is to view universities as multi-faceted (Floyd, 2016). As Kanade and Mallu (2020) claimed, "effort is being made to analyse the strengths, weaknesses, opportunities and challenges to integrate vocational training into higher education for sustainable development" (p.2332).

The dual sector university

Two decades ago, research centered on what were considered to be significant differences between the TAFE and VET sectors. For instance, Schofield (1998, p.11) in a conference paper provocatively entitled *'University-TAFE collaboration: the kiss of death?'* cautioned against the conflation of the Technical & Further Education (TAFE) and Vocational Education & Training (VET) sectors, emphasising that they were not synonymous. In support of this claim, Schofield (1998) proposed a number of intrinsic qualities differentiated between the two sectors:

In 1998, VET (as opposed to TAFE) was perceived to be:

- flexible in delivery mode and content.
- applied and practical.
- competitive.
- able to respond to local needs; and
- less institutionalised and bureaucratic than other parts of the education system.

This resource may lack validity in detail, given its 'fugitive literature' status at that time which included 'curricula, research reports, and unsolicited manuscripts' (Tauber, 1985, p.50) as discussed previously. A study by R. Hämäläinen et al. (2015) suggested that Schofield's (1998) comments in regard to blended teaching practice are no longer relevant in the current rapidly advancing technological educational landscape, although there are

tensions in the literature around this point, with research indicating that substantial change in what Doughney (2000) identified as a 'binary divide' between the VET and TAFE sectors has been slow. Doughney believed that rather than narrowly defining the mission of TAFE and VET, dual sector universities should adopt a model of continuous education which "recognises that both sectors provide general and vocational education (p.66)." One way to create a 'whole,' she suggested, is to move away from notions that split the sector into VET and higher education.

Almost a decade later, Moodie, Wheelahan, Billett, and Kelly (2009), acknowledged this divide, asserting that it would remain due to different expectations and needs in society and the labour market. They claimed that a blurring of the sectoral divide between 'either end' of the respective sectors (i.e., VET and HE) was occurring because of an increasing overlap in what the sectors do 'in the middle' (p.9); an example of this is TAFE courses (and some private VET providers) which deliver HE programs. This divide appears to be narrowing, however, with Kanade and Mallu (2020) listing similar key features of successful VET training as leadership qualities, commitment, and multi-disciplinary approaches to training and educational activities (p.2340). Leach (2017, p.222) made the salient point that in what he calls "this new era of global economic and labour-market uncertainty", there is a visible change in employer - employee relationship expectations. Leach also states that the concept of a 'job for life' is no longer the norm. This perception underpinned the benefits of vocational education, but it no longer applies to the same extent to the transient and complex nature of career paths that students are now required to follow in the 'gig economy'.

The amount of interest in dual sector universities, broadly defined as institutions that deliver 'substantial' levels of both VET and HE courses (Saraswat, 2015), is increasing in response to the challenge of sectoral divisions, although there are still currently only five dual sector universities in Australia. What can be identified as 'substantial' is debated in the literature, with some HE institutions claiming dual sector status without an equal commitment to both VET and HE sectors.

Bathmaker (2019), in a UK study, investigated what it means to be a dual sector institution, how institutions in the study go about forming institutional identities, and how the

construction of such identities relates to particular roles and goals in higher education. Bathmaker identified the goals of the dual sector university as firstly, to create an opportunity for a seamless progression of students into higher education and, secondly, as the potential to overcome the binary divide between vocational or technical further education, and academic or theoretical higher education.

Doughney (2000) agreed with both the divide and the dual sector goals discussed by Bathmaker (2019). He asserted that some universities claim dual sector status based on these criteria - as easier access and greater opportunities for 'pathways' progression into HE and the potential to provide lifelong learning by "transcend[ing] the fractured educational arrangements" created by the deep-rooted sectoral divide of the binary system (Doughney, 2000, p.59). It appears that some of the issues impacting dual sector universities in the early 2000s still prevail. Schofield (1998) stated that HE institutions were pursuing a market position in regard to VET funding and provision. She believed that seamlessness in placing client need and prior learning experience ahead of institutional pedigree and maximising opportunities for students moving between sectors was the key to mitigating the 'mutual suspicion' referred to in her paper mentioned previously.

In agreement with Schofield's assertions about market forces in HE, Doughney (2000) claimed that these forces apply in a similar way to TAFE institutions. From a pedagogical perspective, she expressed a view that while TAFE courses may suffer in terms of range and scope, this could be balanced by dual sector universities offering a wider range of programs from the basic Certificate 1 through to PhD level. Although current VET courses do not currently offer such a broad range of levels, Schofield's arguments provide an interesting historical background to ongoing debates about the VET/HE divide. Research has made it clear that these issues are extremely complex especially in regard to quality assurance matters, reporting and other governance policies (Clayton & Harris, 2019; Moodie, Wheelahan & Lavigne, 2019) and issues with high student attrition rates (Katartzi & Hayward (2019). While this theme is too broad and complex for the scope of this study, the ways in which HE and VET education as they impact educators' blended teaching practice in the respective sectors will be explored, as well as how these tensions play out in a dual sector university. The section below addresses some of these issues in this context.

Blended teaching practice: HE and VET

Awareness of issues related to the diverse teaching strategies and building of teacher expertise that are seen within the trifurcation of HE, VET, and TAFE education has increased significantly in the last decade. A recent government report of Australia's vocational education and training system (*Strengthening Skills, 2019*) suggested a number of strategies for addressing teacher quality issues in vocational education: these included strong regulatory requirements around the registration and quality assurance of all RTOs; targeted measures to encourage and highlight best practice for VET trainers; recognising and rewarding teacher quality through teaching awards and providing access to quality professional development

Notwithstanding the optimistic recommendations for educators mentioned in the literature, the gap already identified in this chapter around blended teaching practice in HE seems to apply equally to the VET sector (*Strengthening Skills Report*, *2019).* As the report stated, "There is a need to overhaul the provision of career education to students, parents and teachers. A VET pathway continues to be regarded as a second-choice option by many" (p. 82).

Again, much of the research concentrates on students' learning (Jonas, Schultz, & Son, 2017), rather than teaching practice, and 'technology-supported vocational learning' generally is also underrepresented in the literature in this area (Clayont & Harris, 2019; Raija Hämäläinen and Cattaneo, 2015). Raija Hämäläinen and Cattaneo (2015), while discussing this current situation in which 'teachers' instructional activity' is less studied than student issues, make the salient point that, while vocational education can benefit from the opportunities of technological development, this creates new challenges for teachers which are frequently not addressed (or sometimes even acknowledged) in dual sector institutions.

Raija Hämäläinen and Cattaneo (2015), in a comprehensive study into teaching practices in vocational TEL environments in Finland, further emphasised the necessity to focus on "the potential offered by an active role of the teachers" (p.136), rather than concentrating on the technology itself. The notion that blended learning is about the pedagogy rather than the tool has been mentioned previously in this review and is now commonly accepted

across the broader academic community. Warwick, Hennessy, and Mercer (2011), stating that "it is the teacher, not the tool itself, which has the active role for arranging beneficial learning activities" (p.137), made a further ironical and related point, observing that:

> *There appears to be a 'deficit model' of classroom pedagogy operating, whereby teachers are not considered competent unless they have substantial technological skills, and those that have these skills are conversely assumed to have a secure pedagogy.*

The above quotation aligns with the literature covered previously in the section on Academic Development in this chapter and it remains a problem in universities today.

What is blended learning?

The literature in this area highlighted the lack of a universally accepted definition of the concept of blended learning, despite many excellent individual definitions. Despite the ubiquity of the blended model in the higher education sector and nearly three decades of research, it appears that academics have still not reached an agreement as to what exactly blended learning and teaching means. Moreover, an exploration into the three phases of the development of blended learning definitions (see Chapter 2) indicated that, rather than developing in a logical and sequential way into a common definition, the process is somewhat cyclical. In practice, some of the early definitions described in phase 1 are still applicable to educators teaching in blended courses and remain elusive.

Blended teaching practice

In this section I searched for answers in the literature to what educators actually practise in their face-to-face classrooms as they struggle to integrate new technological tools into their teaching. Rather than issues affecting teachers, research tends to concentrate more on students' perceptions, learning outcomes and ways of using technology. An example of this was highlighted by the theme of digital natives. Now no longer considered to be a valid concept, and with the focus of this study firmly placed on teaching practice rather than students, I decided therefore, to omit this topic from this review, despite the large body of literature available.

Blended learning frameworks

The response of most universities to addressing teaching practice over the last decade or so has been to design and implement frameworks to help educators identify appropriate

technical tools to integrate into their face-to-face teaching and to understand the factors that influence their choices. Five relevant models around learning and teaching practice were addressed in this section: the *TPACK Model*; the *SAMR Model*; the *Conversational Framework;* the *Carpe Diem Framework* and the *Flipped Classroom Model*. The relevance of academic development frameworks to blended teaching practice was debated in this section and both the advantages and disadvantages were analysed.

Educators' use of technology

The key issues I identified in the literature investigating how, what and why educators use technology in their teaching relate to the debate about to what extent technology is improving education and whether it is, in fact, an example of innovative disruption. A principal factor on which most researchers agree is the need for all involved in education (e.g., policy makers, parents, researchers and educators) to scrutinise what Selwyn (2016b, p.18) labels the "appeal of the digital fix" which has arisen from a general dissatisfaction with the state of current education.

Further, in the context of the hyperbolic language around the potential of educational technology seen a few decades ago, I analysed the debate on whether improvement, enhancement and engagement has been achieved to date. A significant consequence of the growing belief amongst current researchers that technology has not lived up to its pedagogical expectations is highlighted in the literature showing the dependence of educators in universities on technological tools in their everyday academic lives. Perhaps the best example of this phenomenon is the use of earlier versions of learning management systems (or LMSs) which showed scant evidence of enhancing learning or teaching. Although studies that concentrate on this theme indicate that some educators are still using the LMS as a supplement to existing curriculum content because it is 'accessible' and 'efficient' (Torrisi-Steele, 2018, p.181), there are many innovative practices to be seen as LMSs develop and improve with advances in technology.

The impact of academic development

My aim with a review of the substantial body of literature in this section was to gain an understanding of how academic development impacts educators and whether it achieves change in their teaching practice, in particular in regard to technology. Studies suggest that

HE academics are dissatisfied with the development offered by their universities, unless they provide opportunities for 'on the job', 'authentic work-based' activities.

As is the case with blended learning definitions, researchers have not reached agreement about definitions of academic development, nor whether a lack of clear, unambiguous terminology limits its impact on teaching practice. The difficult position and frequently negative perceptions of 'academic developers' is also taken into account, as well as the literature which highlights the precarious position of these staff who find themselves working in the previously described 'third space,' where relationships with management, faculty heads and educators are fraught (K. Mitchell et al., 2017). More recent literature highlights, however, that this is an area where significant improvements are taking place.

Academic Leadership

Research into academic leadership indicated that strategic leadership was frequently lacking in relation to HE policies around blended learning and teaching. VET teachers appeared to be less affected by this, opting to manage expectations and 'work around the system' in ways which were not evident in their HE counterparts. A further issue of concern was the varying degrees with which institutions managed change, particularly in relation to the integration of technology into face-to-face teaching programs.

Where academic culture is concerned, much of the research highlighted issues with non-supportive faulty heads of department, lack of agency in planning and strategy as well as a culture of compliance rather than buy-in by disillusioned HE educators. Some such negative cultures were aptly described by Alvesson and Spicer (2016) as operating under "stupidity management" which, paradoxically, succeeds in 'getting things done' (Smyth, 2017). This is discussed further in later sections of the study.

The HE and VET debate

Frustratingly, research into blended learning and teaching differences between the HE and VET sectors is lacking. I identified a number of studies that highlighted an historical cultural divide between the two sectors and what the implications of this would be in regard to policy making if VET were to attain parity with HE (Sych, 2016). This seemed to be a hypothetical issue, however, with the researchers generally agreeing that despite progress

in this area, such equivalence has not been reached (Lucas, 2018). Commonalities did exist between the two sectors where a paucity of research into blended teaching practice was concerned – most studies into the area focus on student outcomes and perceptions.

I have also discussed the dual sector university in this section and the literature has pointed to inconsistencies in how these institutions are identified, as well as their varying degrees of success in meeting the diverse needs of VET and HE students and teachers. In regard to blended learning and teaching, I considered the challenges facing teachers of vocational subjects. I was unable to locate studies comparing what de De Bruijn and Leeman (2011) claimed was a special skillset of VET teachers compared with the more concept-based HE lecturers; however, an informative report by Jonas et al. (2017, p. 4) stated that "the capacity and capability of teachers and trainers is under stress… and have not been well prepared for the sorts of challenges they now face in their classrooms and workshops" and that there is a clear need for specialist support for VET teachers in the classroom.

Chapter Summary

This comprehensive literature review demonstrates that a lack of clarity and a degree of ambiguity frames the debate around the topic of blended learning and teaching which is the focus of the study. This was a common theme in all sections and is reflected in the view within the academic community that research progress and our eventual understanding of blended learning and teaching practice is impeded by this continuing debate, raised as early as 2005 by Oliver and Trigwell. If one accepts that the blended learning and teaching paradigm is firmly entrenched in our current education system it should perhaps be argued, therefore, that educators would be better served by concentrating on the bigger question of *how* we should blend, rather than what it *is*. Bryan and Volchenkova (2016) stress that because it has a practically infinite number of possibilities and implications, this question is crucial as we move into the future.

Section 2
Research Methodology

Chapter 3: Research Methodology

Introduction

In this chapter I explain the rationale, research approach and framework, design and methodologies that underpin this project. I also discuss research validity and reliability within the interpretivist paradigm of research adopted for this study, as well as the process and methods selected to generate and analyse the qualitative and quantitative data that align with the assumptions and philosophy of the paradigm. The chapter focusses on the research paradigm adopted (the interpretive research paradigm) which is based on the belief that an individual's views reflect their social environments and experiences (Blanche, Blanche, Durrheim, & Painter, 2006)

Before writing this chapter, I conducted a literature review on the relevant methodological issues related to mixed-methods research design and, in particular, how those issues relate to this study. In the process of designing and conducting this research, I have consistently drawn on evidence from the literature to support the choices and decisions made.

Lexical choices

'Academic' vs 'educator'

The term 'educator' rather than 'academic' is used throughout this thesis. There appears to be a general view within in the education community in which I am involved that the broad terms 'academic' and 'educator' imply a primary focus on research and teaching practice respectively. Perceptions of the roles vary, for example, current research shows that the majority of Australian higher education academics are also part-time managers as well as researchers and teachers, following the "40-40-20" academic model (D. Bennett, Roberts, Ananthram, & Broughton, 2018), while a 2016 Grattan Institute report (Norton, Cherastidtham, & Mackey, 2016) added the expectation of community engagement as a fourth task for academics, as well as confirming the goal of most academics to study in their field and contribute to new knowledge. Educators, on the other hand, are usually categorised under the VET umbrella, and their teaching practice is viewed as more related to training; they are required to have "current knowledge and skills relevant to vocational training, learning and assessment practices" (Commission, 2016, p.5). Yet recent literature debunks the myth that VET teachers are not involved in research into innovative teaching practice; for instance, Watson (2015), in an article on the impact of blended learning on

the vocational education sector, makes several recommendations for government, education and training providers and the TAFE/VET community regarding support for the design and development of customised learning that is "a fit for the educators, the learner and the workplace" (p.3). In a recent review of the Australian VET sector, it was reported that there have been increasing levels of research activity in regard to VET-led initiatives "to support, encourage and build research culture and activity (Williamson, 2019, p.9).

Not surprisingly, the data in my study suggests that not all higher education educators are necessarily passionate about research, nor are all VET educators skilled teachers. Both cohorts exhibit a mixture of both these characteristics. As the term 'educator' encompasses both teaching practice and research, therefore, I considered this to be a more fitting and inclusive term with which to describe participants than 'academic' except for reasons of clarity in the text.

'Data collection' vs 'data generation'

A number of educators and researchers have debated the options regarding the term 'data collection', described by Thomson (2013a) in one of her many "Patter" blog posts as possibly both an inadvertent "ontological and epistemological slip of the tongue." Thomson argues that data is not data until we make it so. Ramazanoglu and Holland (2002, p.154) agreed, stating that the term 'data collection,' at its simplest, can imply that 'facts' are lying about waiting for the researcher to spot them. In this study, I considered myself as a participant in the process of generating the data through the research tools (Grix, 2010). Thus, from an ontological and epistemological perspective, I decided on the terms, the focus, what sections of the data to include and omit, the number of interviews, which participants to include and so on. The same applied for the quantitative survey where I was also immersed in the data generating process. As Thomson (2013a) remarked, "There's not a bit of a survey that the researcher is not all over, including the choice of statistical approach." Challenging the assumption that data generating and data analysis are mutually exclusive, I opted, therefore, for the more appropriate term 'data generation' over 'data collection.'

Personal and gender pronouns

'I' vs 'The researcher'

There appears to be a shift in the literature regarding the use of the personal pronoun ('I') versus the third person pronoun ('the researcher'), as well as the use of active or passive voice sentence structure. According to Thomson (2013b), use of the personal pronoun traditionally indicated a lack of objectivity, and thus presumably biased research, whereas third person writing suggested detachment and objectivity. Thomson (2013b) goes on to stress that as research is never neutral, the use of 'I' is now an acceptable form of academic writing. This view is confirmed by scholars who support the trend towards the researcher adopting an impersonal stance; for example, Hyland and Jiang (2017, p.272) claim that it is no longer realistic for a researcher to claim to be a "dispassionate objective observer with little or no influence on the research scene they are observing." This is discussed further in my *Position Statement*.

In the light of the literature, together with my epistemological stance, I decided to use the first-person pronoun in this chapter; as the scholar, if I generate the research and plan to add to informed disciplinary conversations, it is reasonable to write myself into that space. Unlike the third person that suggests a disembodied researcher as an instrument, the use of 'I' reflects my interpretivist epistemology, involving me indisputably in the research process.

'He', 'she' or 'they'

Throughout the analysis and discussion chapters, I decided to avoid the awkward stylistic use of the third person plural pronoun 'they,' opting instead to randomly assign a gender pronoun 'he' or 'she'. My rationale for this was twofold: firstly, and most importantly, exchanging the plural pronoun for the singular, at least in the English language, is conspicuous, hence alternating between 'he' and 'she' assured anonymity of the data, especially in the more salient interview data transcripts. Secondly, it resulted in a more naturalistic phrase structure which did not interrupt the flow of the text.

Research objectives

In many universities there are increasing institutional pressures to incorporate educational technologies in the delivery of face-to-face teaching (Becker et al., 2017). However, it appears that there is an increasing trend for technology in education to "just 'get it done'

without much thought or reflection" (Selwyn, 2017, p.1). There are also many isolated case studies in the literature illustrating successful blended teaching practice often produced by passionate individuals and which, though they might be examples of excellent research, may not always apply in other settings, at least without a degree of modification (Romeo, in Henderson & Romeo (2015).

Issues relating to the blended teaching and learning paradigm in this study are discussed in detail. Further, my aim is to identify gaps in existing research regarding the *actual* blended teaching practice of educators in universities, as opposed to what *should* or *could be* the future of technology and education. Firstly, there is a need for further research into the factors that impact the successful implementation of the blended teaching mode: what impedes or enables this practice; what the 'blend' in 'blended teaching' means; how educators teach in their face-to-face lectures; what types of technology they use in a blended classroom; and *how*, *why* (or indeed *whether*) they integrate technology in their face-to-face teaching. A second area I address is a lack of research into how the blended teaching phenomenon plays out in the increasing number of dual sector universities in Australia, and whether those teaching in the HE sector and VET sectors face similar issues in delivering effective blended teaching.

By seeking answers to the research questions listed below, the objective of this study is to identify and gain insight into the factors that impact successful blended learning and teaching both in a university wide context and the specific context of a dual sector university. The findings in this mixed methods study will hopefully make a significant contribution to the existing body of knowledge and literature in the field of blended learning and teaching practice in universities.

Erickson (1985) stated that combining research questions with methods of data collection (i.e., generation) is an evolving relationship; a successful combination of explicitly framed research questions, as well as a deliberate, appropriate choice of data collection "enables and empowers intuition, rather than stifle it" (p.140). I designed 3 research questions to be the primary focus of this study:

Research questions

1. What are the main issues facing educators teaching in a blended environment in Australian universities?
2. What technological tools do educators use in their blended teaching and why?
3. How does academic development impact educators' blended learning and teaching practice?

While proponents of qualitative and quantitative research methodologies have long debated and defended their respective approaches (R. Johnson & Onwuegbuzie, 2004), sound research practice must ultimately align with the research questions. This study is based on a sequential integrative approach which is discussed in detail in Section 2. The quantitative data set is described in Chapter 4 and integrated into the discussion chapters 5 and 6. These discussion chapters are based on the qualitative interview data. The research approach theoretically falls under the definition of 'mixed methods' and I have discussed it as such. That said, I approached my research strategy 'paradigmatically'; my aim was that ontological, axiological and epistemological viewpoints in my paradigm should underpin the methodologies, together with the nature of the research questions (Ling, 2017; M. Patton, 2002). As these questions were designed to enable description, as well as to explore and interpret findings, I considered it appropriate to introduce this section with a detailed discussion and analysis of the research paradigm.

Research paradigms

The term 'paradigm' originated from the Greek word 'paradeigma' - meaning pattern - and it was first popularised by Kuhn (1962) in his seminal work 'Structure of Scientific Revolutions' to describe practices that define a scientific discipline at a particular point in time. Kuhn described 'paradigm' as a prevailing understanding in an area of science; paradigms function as mediators between scientific theories and the world, representing views or conceptual frameworks that are accepted by a specific community with which scientific problems can be investigated and solutions found. The term 'research paradigm' is used in a wider sense to refer to the broad approach taken to a research endeavour underpinned by an understanding of the nature of the subject of research and its accessibility. A paradigm, therefore, can be a 'knowledge claim' (Bloomberg & Volpe, 2008) a guide; framework; pattern; model or system of scientific and academic thoughts, assumptions and values.

Different theories exist in the literature regarding the role of paradigms in research design and methodology. Research paradigms are often not a focus point in either research practice or literature, with many researchers tending to design studies without relating a paradigm to a theoretical framework. Hussain, Elyas, and Nasseef (2013), for instance, while emphasising the importance of researchers making a careful selection of a paradigm which will form the basis of appropriate design and methodology, referred to the 'slippery' nature of research paradigms and felt it to be one of the main challenges facing researchers (particularly nascent ones). A number of studies in the past three decades have described the elusive nature of research paradigms in terms of perceived conflict between positivist and interpretivist advocates (Ling & Ling, 2017). The literature over the past two decades or so appears to have been engaged in 'paradigm wars' (Denzin & Lincoln, 2011; Reichardt & Rallis, 1994). These were essentially intense and sometimes rancorous debates over the suitability of mixing qualitative and quantitative methodologies in the social and behavioural sciences.

The result of the paradigm wars was a gradual consensus that a research approach needs to match aims, issues and questions appropriately. C. Jones and Kennedy (2011), addressing the ways in which research problems are conceptualised, articulated and conducted, argued that no particular research paradigm is a perfect fit for any particular method, and that researchers should think in pluralist terms- 'counter-positives' - whereby they approach research from alternative paradigms, challenging viewpoints and consequently avoiding the 'superficial and box ticking' research perspectives such as qualitative and quantitative methods (p.18). Ling and Ling (2017, p.21) argued that C. Jones and Kennedy (2011), in "a tendency to exacerbate this confected dichotomy," confused *methodology* with *paradigm* and it was, therefore, unclear as to whether the conflict was between methodologies (i.e., qualitative vs quantitative) or paradigms (i.e. epistemology, ontology and axiology). Ling and Ling (2017, p.21) explained that:

> *Any of the paradigms can employ either and both of the methodologies in ways that enhance and strengthen the research and findings, and to perpetuate a divide between qualitative and quantitative methodologies is to miss the point of research paradigms completely.*

The impact of the paradigm is to provide a stable and consistent basis for the design and implementation of research. It should not be perceived as a qualitative approach to educational research, but rather as a means of attaining an empathetic understanding of values, beliefs and meanings of social phenomena (Hussain et al., 2013). Hence understanding and interpretation are inseparable. Hussain et al. (2013) cited Creswell, Plano Clark, Gutmann, and Hanson (2003, p.9) who pointed out that interpretivist researchers (unlike positivists) do not generally begin with a theory; rather a research project is generated or developed inductively throughout the research process. Finally Shank and Villella (2004) provided an eloquent summation of the benefits of interpretivism for social science researchers, stating that it is most suitable because of the opportunities it offers for "investigative depth, interpretive adequacy, illuminative fertility, and participatory accountability" (p.46).

A table of research paradigm categories by Ling and Ling (2017, p. 3) is presented below in Table 4. I initially selected this over other representations in the literature because it includes a 'supercomplexity' paradigm; this, underpinned by the work of Barnett (2000) is a novelty in the categorisation of paradigms of education research. This paradigm distinguishes complex from supercomplex research pursuits in that it focuses on the complexity and dynamics surrounding subjects of current education research. I took this into account in the design of my study and in defining the nature of the outcomes I hoped to achieve. Ultimately, I decided that the supercomplexity paradigm did not align with my study; it goes beyond complexity, adopting the nomenclature 'supercomplexity' on the grounds that even the frames of reference we employ in educational research – the current wisdom on what is 'known' and theorised bases for action – are in a state of flux. Although the world of blended learning and teaching is complex, there is consistency in the framework I have adopted. For example, I framed the research questions based on an understanding of current literature; on gaps I identified and on several contentious issues that I felt warranted further investigation. The research questions I investigated resulted in an interpretation of the topic and, while this was admittedly an interpretation in the moment in a dynamic environment, it was nevertheless an interpretation framed by a consistent theoretical understanding. In this context, the methods I adopted for data generation and data analysis – both quantitative and qualitative – were appropriate to the

investigation and to the nature of my intended outcomes. Hence complexity, rather than supercomplexity, applied.

Paradigm		Ontology	Axiology Drivers and Theory	Epistemology	Outcome
Positivist		A consistent or ordered reality.	Objective pursuit of knowledge and truth based on theory.	Knowable objective truth.	Knowledge derived from affirmation, contradiction or modification of contemporary understanding.
Neo-positivist	Deductive	Reality may be patterned, local and subject to change over time.	Testing of an understanding, dispassionate but influenced by the researcher.	Knowledge of what is not the case. Presumptive knowledge of what is.	A tested or constructed understanding of reality that is evidenced, trustworthy and authentic though contextual, provisional and revisable.
	Inductive		Construction or reconstruction of an understanding.	An understanding that is constructed and provisional.	
Pragmatic		Reality is not the issue. The issue is finding what works.	Determined by practical need relevant to the researcher.	Veracity of an understanding is determined by its practical value.	Evidenced praxis— through the use of knowledge. A constructed evidenced, defended practical solution.
Interpretivist		The only understanding available is based on observation and interpretation.	Pursuit of an understanding in which the value position of the researcher is inherent.	Understandings of elements of the world are subjective and socially constructed.	A defended, evidenced, socially constructed, personal interpretation of the subject researched.
Transformative		There are multiple realities. Some versions are privileged.	A concern with human rights and social justice.	Knowledge has a social and political context. Participants' understandings are integral to research undertaking.	An evidenced socially constructed understanding with potential to support empowered action.
Supercomplexity[1]		Reality is complex and dynamic. Frames of reference are shifting.	Embracing fragility, insecurity, and strangeness. Problematizing existing understandings and generating diversity.	Understandings are constructed, multiple, shifting and contested. The future is unknowable.	A provisional, defended imagining and complex interpretation of the subject researched.

Table 4: Categories of paradigms and research possibilities (Ling & Ling, 2017)

As the paradigm matches the researcher's basic belief system, the premise of research philosophy is based on the assumptions of ontology, axiology and epistemology which are defined below. These philosophical beliefs which underpin this research should not be seen as mutually exclusive, but rather as trains of thought that can simultaneously intersect and diverge, raising arguments, questions and theories.

The classification system of paradigms by Ling and Ling (2017) provides a clear and therefore valuable insight into the complexities of best-practice research and, accordingly,

I placed the designated research paradigm - rather than choice of research method - at the forefront in this Research Methodology Chapter.

Research Philosophies

Ontology

Ontology refers to the researcher's understanding of the nature of reality, i.e., 'what is'. This idea originated in the field of philosophy and poses such questions as "What is existence? and "What are physical objects? (Belgiu & Thomas, 2013). These researchers explain that an awareness of these questions leads us to challenge assumptions that what we see and hear corresponds to what is real in the world and, further, to be aware that dealing with human behaviour and interactions is ontologically complex. This complexity leads to numerous different perspectives of the world to be studied and, consequently, no two interpretations are identical.

My assumptions in this study were based on research indicating that firstly, there are a number of intrinsic and extrinsic barriers to educators successfully delivering effective blended learning programs (Carbone et al., 2019). Secondly, academic developers face several significant challenges in engaging in their own professional learning, as well as interacting and assisting educators with their integration of technology into face-to-face lectures (Brew, Boud, Lucas, & Crawford, 2017). Finally, tensions in the relationships and social interactions between educators and academic developers, as well as with their respective colleagues and managers, presented me with the challenge of how I should perceive and study these complex factors.

My ontological standpoint within the interpretivist paradigm is that while there may or may not be patterns of behaviour and consistencies in what the perceptions of these barriers are, there are limitations to adopting the reality or consistency accessible to me as the researcher - i.e., all that is available is what I can interpret. Clarity around the notion of ontology helped me to reflect more deeply on the different ways of seeing and understanding the sensitivities and differences of people immersed in the multi-faceted educational environment of blended teaching.

Axiology

Prior to a discussion on axiology, it is worth noting that in the past this philosophical viewpoint has often been ignored in the research process. This omission of the role of values is flawed and short sighted (McGregor, 2011); indeed, as Engle (2009) claimed, axiology is always inherent in epistemological and ontological choices whether or not it is acknowledged. Quite what values are included in the concept of axiology is often not clear and this is possibly why some researchers do not embrace it. For this project, I considered my personal values to be equally as important as the value positions of the research exercises (Ling & Ling, 2017). Traditions together with lived experience (and all the complexities this entails) adds richness to the data obtained**.**

As described by Tomar (2014), axiology refers to the roles that values play in the research process, i.e., how we value what is. Three different types of value positions were significant in this study:

1. My position as researcher in an attempt to understand what is intrinsically worthwhile about this study. In terms of axiology, the research was designed to contribute to my understanding of the blended teaching practice of higher education and VET educators. As suggested by Mackenzie, in Ling and Ling (2017, ch.15), I did not attempt to separate my knowledge of the blended teaching space; my experience as a teacher in the VET sector; my role as an academic developer; or my academic work as an early researcher interpreting relevant literature. This aligned with the interpretivist paradigm, in which an understanding of a topic is not designed to influence what is happening in the space but rather to explore, understand and describe the findings and "provide an account of the phenomenon under examination" (Ling & Ling, 2017, p. 256).

2. My position as a researcher relating to my personal values that underpin the research. Several questions arose here as to my unconscious biases and values and reflections on how I allowed for these in the research process. For example, while educators today are supported in many ways with their blended teaching practice, in my early career I had to develop skills with a noticeable lack of institutional support - and this from both a professional and personal basis of neither technical skill nor experience in teaching with technology. Did these changing practices in the

support of educators in teaching and learning with technology compromise my objectivity or, at least, degree of detachment? Furthermore, did demographical factors such as age and educational background affect my research? For instance, I observed that younger educators, often technically savvy were sometimes dismissive of their older colleagues who were reportedly more afraid of technological tools and reluctant to integrate them into their face-to-face classrooms. As an older researcher with, in comparison, fairly recently acquired technical skills, I questioned whether this led to any bias on my part during the research process.

3. The position of the participants in relation to their attitudes to blended learning and teaching practice. As mentioned previously, there is a tendency by researchers to omit axiology in their studies, focusing rather on epistemology and ontology only. Hence in this section, I have assumed that the concept of axiology pertains to *all* the values in a research project - i.e., the intrinsic value of the study itself, as well as the values and beliefs of both the researcher and the participants. Biesta (2015) presents an interesting viewpoint on axiology in education generally which was relevant to the value position of the educators in this study. To answer normative question "what is education for?" he explains that we need to engage with values and preferences, rather than discuss processes or results. During the course of this research the complexity in the phenomenon of blended teaching and the university environment became apparent.

Selwyn (2017) further highlights such factors as tradition and culture, teaching experience and self-belief which play a role in the construction and reconstruction of values of many educators integrating technology into their face-to- face delivery (Shifflet & Weilbacher, 2015). Selwyn (2017, p. vi) however, warns that the danger of many such studies into individual barriers to blended teaching practice frequently miss the point; he argues these are "primarily social, rather than technical, issues" and thus should be studied within the context of people and places. From my own axiological point of view, it is clear that any attempt to understand both educators' and academic developers' values, priorities and attitudes in this study should be framed in terms of what he calls "the wider concerns of

social science." This aligns closely with the interpretivist paradigm which underpinned this research.

Epistemology

The concept of epistemology relates to the study of knowledge, i.e., how a researcher knows what the participants in a study know. From an epistemological view, "knowledge of the world is intentionally constituted through a person's lived experience" (Weber, 2004, p.iv) or, in other words, epistemological beliefs constitute core beliefs about the nature of knowing and how we come to know things (Harteis, Gruber, & Hertramph, 2010). Creswell (2013, p.20) explained that an epistemological assumption in a qualitative study means that the researcher tries to get as close to participants as possible: "the researcher tries to minimise the distance or objective separateness between himself or herself and those being researched."

In this study my epistemological philosophy again reflected the interpretivist paradigm in that my view of reality was subjective; the interpretation of the existing data was based on current literature and my extensive personal experience - in this case both as a teacher and later as an academic developer working in the blended teaching paradigm. My epistemological position was to try to understand the subjective values, perceptions and preferences of educators and academic developers in regard to blended learning and teaching, as well as to explore how these factors give direction to teaching in this area. The findings of the study are presented as my personal interpretation. What emerged is an evidenced and defensible interpretation; even if other interpretivist researchers do not agree with the research claims, they should be willing to agree that the conclusions from the study are plausible, at least from my perspective (Weber, 2004).

The Interpretivist paradigm

As discussed above, the research design is based on an interpretivist paradigm. A premise of the interpretivist approach is that value-free data cannot be obtained because a researcher will use their personal preconceptions to guide the process of inquiry. As discussed previously under terminology around the process of generating data, the researcher's involvement in the generation of data and its subsequent analysis is acknowledged, and the researcher interacts with the subjects in the study, changing the perceptions of both parties (Walsham, 2006). Nevertheless, through interpretation of data,

researchers can move beyond what has occurred to understandings as to how it has occurred (Lin, 1998).

In the interpretivist paradigm, an understanding of the topic is to explore, understand and describe the findings and 'provide an account of the phenomenon under examination.' (Mackenzie & Knipe, 2006). The paradigm also accommodates inductive reasoning which means the researcher can reflect on research questions during the data generation process; this enables the exploration of new lines of inquiry as they emerge. In the design of this study, I first of all generated the data about the topic, then I constructed meaning from the data and, finally, I interpreted the findings.

Validity and reliability

Validity

Validity (whether the researcher measures what they think they are measuring) and reliability (whether the analysis of the data is consistently reproducible) refer to how a researcher can persuade readers that their findings are worthy of consideration (Guba & Lincoln, 2005) by other academics and researchers. For the purposes of this study, other scholars working within the interpretivist paradigm should be able to establish the validity of the research outcomes by examining the context of the research study; the evidence generated; the process used and, possibly, parts of the researcher's experience.

The means by which I achieved validity in this study was by using research strategies, data generation and data analysis techniques that I considered to be appropriate to my research and which were implemented correctly – those that are acceptable to the wider research community. The methodology I used addressed doubts about validity; the implementation of a mixed methods approach, together with triangulation in the data, resulted in greater reliability than a single methodological approach would have. That noted, I was cautious about the risks of combining divergent research methods and the need to adhere to the rules of inquiry of each methodological paradigm to retain maximum validity (Morse, 2016). To this end, the remainder of this chapter describes the measures I took to justify my qualitative approach within an interpretivist paradigm, my choice of methodological tools and their relevance to this study and a thorough thematic analysis of my data.

Reliability

Pivotal to reliable research is the notion of trust (Råheim et al., 2016). Aware that valid research can be unreliable if not properly carried out, I attempted to ensure reliability in several ways which were based on the advice provided by Yin (2003, p.38) to "make as many steps as operational as possible and to conduct the research as if someone were looking over your shoulder." Firstly, I took measures to increase the reliability of the interpretivist research process by acknowledging and attempting to address the implications of subjectivity (Weber, 2004). For example, I tried to strike a balance in the subjective assumptions and suppositions that were based on my experience as an academic developer and achieved this by remaining open to alternative views throughout the research process, maintaining a focus on responses, description of explanations and comments from both the survey and interviews and by constantly checking their plausibility from different perspectives (Bryman, 2014). Secondly, I provided an open and transparent interpretation of the data by meticulously documenting the entire research process in a research journal. Here I provided details of my research sites, sample selection information, which research tool was relevant to the different samples (online survey and interview participants) and details of the results (survey results and interview summaries).

Some researchers contend that the philosophical approach of the interpretivist paradigm can lack validity, reliability, generalisability and robustness due to the subjective nature of its results (Ernest, 1994) which means a lack of generalisation of results in other contexts (Hussain et al., 2013). This argument, rather than highlighting weaknesses, reflects what the true benefits of the interpretivist paradigm are, at least in so far as they relate to the quality of the research in this study. The topic is bound by the context of blended teaching practice; it does not seek generalisation or transferability of findings but exploits rather the rich data and 'contextual depth' (Eisenhardt, 1989) which is generated from the methodology. A subjective stance in the research process is precisely what the interpretivist paradigm aims to achieve, i.e., an understanding of the phenomenon of blended learning and teaching from the point of view of the participants involved in the research, including myself (Elshafie, 2013). This was discussed previously in the sections on epistemology and ontology.

Methodology and Methods

When describing approaches to research, a distinction should be made between the terms 'methodology' and 'method.' Methodology is about the principles that guide the research practice; it represents how the research was conducted, how the knowledge was gained, and why the tools selected were employed. As McGregor and Murnane (2010, p. 420) wrote, "Simply put, *methodology* refers to how each of logic, reality, values and what counts as knowledge inform research". *Methods*, on the other hand, describes a number of research elements such as the research approach, types of data, data generation tools and the way in which the data is treated. Relating to qualitative research, which is the principal methodology employed in this study, the methods emerged from the epistemological and ontological views of the paradigm underpinning the research. The data generation tools were an online survey and semi-structured interviews, and the data was treated using thematic analysis.

Implications of quantitative and qualitative data

Researchers claim that these two methodologies should not be viewed as either dichotomous or incompatible; instead, they should complement each other (Bazeley, 2012, 2017, 2018; Brennan Kemmis & Green, 2013; Creswell & Poth, 2016; Ling & Ling, 2017) Nevertheless, quantitative and qualitative methods are governed by different principles and assumptions and the research differs in many ways. According to Patten and Newhart (2017), examples of the principal differences between quantitative and qualitative research are, respectively: presentation (numbers vs words); approach (deductive vs inductive); emphasis (generalisation vs interpretation); instruments (structured interviews vs unstructured or semi-structured interviews); samples (larger vs smaller); flexibility in research plans (non-adjustable vs adjustable); results (generalisation vs interpretation); and approach to literature (basis for planning research vs 'de-emphasisation' of literature and greater focus on preliminary data).

Quantitative research

M. Patton (2002, p.14) defined quantitative research methods as '" those that require the use of standardised measures so that the varying perspectives and experiences of people can be fitted into a limited number of predetermined response categories to which numbers are assigned." Quantitative research generates data that is analysed (deductively)

as quantities or numbers which are usually, but not always, presented through statistical analysis (K. Patton & Parker, 2017), and it is this use of statistics that allows researchers to search for and find patterns in data and to make generalised findings from a sample to a wider population.

Traditionally, quantitative methodology dominated the research scene with, as Newman, Benz, and Ridenour (1998) explained, empirical fact generating and hypothesis testing are often used in the study of educational social phenomena. Quantitative methodology, while still seen by some in the mathematics and science domains as the most significant, is no longer necessarily the prevailing perspective, with some researchers focusing more on mixed methods and as previously mentioned, different and more holistic approaches to design frames (K. Patton & Parker, 2017).

Debunking what she called 'antinumber myths,' - e.g., the supposition that real qualitative researchers do not, and cannot count - Sandelowski (2001, p.230) claimed that numbers are "integral to qualitative research as meaning depends, in part on number." Bryman (2014, p.630) demonstrated this in terms of 'quasi-quantification' engagement, whereby researchers use terms such as 'many', 'frequently', 'often', 'rarely' or 'some.' As Sandelowski, Voils, and Knafl (2009) cautioned, while this 'semi-quantification' allows the researcher to draw attention to both regularities and idiosyncrasies in the data, it must be used judiciously, and it is not intended to convey generalisability beyond the study sample. In mixed methods studies such as this one, I was able to avoid the lack of precision that this 'semi' or 'quasi' quantification sometimes causes. The inclusion of a survey as a methodological tool allowed me to see my data in a new way and to learn more about the characteristics of a different group of participants. Thus, the quantitative survey supported and complemented the results of my qualitative interviews and assisted in the identification of emerging patterns in a wider context than I could not have achieved with qualitative tools alone.

Qualitative research

Although they have inherent strengths and weaknesses in the same way that quantitative methodologies do, qualitative research techniques such as interviews are generally considered to be more adaptive and flexible than quantitative methods (Onwuegbuzie & Leech, 2005), allowing for a more complex and nuanced explanatory analysis. Qualitative

researchers tend to work more meticulously with fewer participants than quantitative researchers, constructing full and detailed descriptions, rather than using statistics, measurements and frequencies to quantify data (Mackey & Gass, 2005). The advantages of (inductive) qualitative techniques are especially evident when investigating complex topics such as the blended learning and teaching paradigm which may not supply the neat and categorical questions and answers typical of quantitative surveys. Despite being part of the everyday vernacular in education circles, blended learning and teaching is an excellent example of such a complex phenomenon, with the implementation, concept (and indeed the very definition) complicated by many diverse, conflicting and at times contradictory perceptions (this is discussed in detail in Chapter 2).

The notion of 'rich data' as qualitative data is described as data that reveals the richness and complexities of what is being studied and its generation is dependent not only on the process, but also on its interpretation and representation. Geertz (1973, p.3) termed this 'thick description,' defining it as text "which specifies many details, conceptual structures and meanings, and which is opposed to 'thin description' which is a factual account without any interpretation." Rich, thick description engages readers and offers a sense of the multifaceted complexities of the phenomenon being researched. In this study rich, thick description (achieved by anecdotes, a research journal and the use of extended, relevant quotations from participants) built on the rich data generated to engage readers and give them a sense of being involved in what was represented.

This study is based on a systematic integrative approach of quantitative and qualitative data. Theoretically, therefore, it is a 'mixed methods' study and I have discussed it as such in this chapter. However, bearing in mind Ling and Lings' (2017) warning about conflating methodology with paradigm, I have used the term with caution, because when approaching research strategy 'paradigmatically,' the ontological, axiological and epistemological viewpoints in the interpretivist paradigm should inform the appropriate research methodologies which, in turn, should align with the nature of the research questions (M. Patton, 2002). In this study the research questions were designed to enable description, exploration and interpretation of findings.

Mixed methods

Creswell (2013, p.4) provided a clear definition of mixed methods research, also including an often omitted explanation of what it is *not*:

> *Mixed methods is a research approach, popular in the social, behavioral, and health sciences, in which researchers collect, analyze, and integrate both quantitative and qualitative data in a single study or in a sustained long-term program of inquiry to address their research question.*

According to this definition, mixed methods are appropriate when either quantitative or qualitative research is insufficient to fully understand the research questions and multiple perspectives are necessary; when the researcher needs to explain or enhance statistical findings by talking to people; and/or when the researcher needs to determine whether quantitative and qualitative findings match. Mixed methods are not appropriate, however, if the aim of the research is a mere transformation of qualitative data into quantitative data during the analysis phase; if only formative/summative evaluation is planned or if qualitative data is simply an addition to an experiment. Rigorous methods of analysis must be employed for both types of data and they must be combined using a specific type of mixed methods design.

This highlighted the concept of triangulation. Triangulation constitutes a degree of comparative analysis, and it raises the question in the interpretivist paradigm as to what the analysis contributes to our understanding. Triangulation can be said to occur as the use of two or more methods of data collection, for example interviews, surveys and documents. The intention of triangulation in this study is, to "map out, or explain more fully, the richness and complexity of human behaviour (in this case, the phenomenon of blended learning and teaching practice) by studying it from more than one standpoint" (L. Cohen & Manion, 1986, p.254). Triangulation occurred through the online survey used, as well as two different cohorts of semi-structured interview participants – educators and academic developers.

Also pertinent to the aim of expanding one's field of data generation and analysis by adding different perspectives and research lenses is the approach of 'crystallisation,' a concept which was coined by (Richardson, 1994). According to Richardson, crystallisation combines symmetry and substance with an infinite variety of shapes, substances, transmutations, multidimensionalities, and angles of approach. "Crystallization provides us with a

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deepened, complex, thoroughly partial understanding of the topic. Paradoxically, we know more and doubt what we know " (Richardson, 1994, in Denzin & Lincoln, 2011, p.208).

Since Richardson's (1994) signature work on crystallisation, other scholars have adopted the concept. Denzin and Lincoln (2011) cited Janesick (2000) who, when collaborating with researchers, applied the concept of crystallisation to create more angles for looking at particular topics and research questions, while Ellingson (2009) described how crystallisation can provide an effective way to describe rich, detailed findings by acquiring and "making sense of data through more than one way of knowing" (p.11).A study by Shagoury (2011, p.297) also discussed an "intriguing new method" of crystallisation which emphases the need for teacher-researchers to "make room for creative leaps in data analysis." Resonating with me as I reflected on the data analysis process in this study, Shagoury explained that teacher-researchers can best challenge their assumptions by self-reflection, keeping journals and engaging in critical conversations about their beliefs and understandings. Crystallisation, she claimed, by providing different perspectives can help teacher-researchers to achieve more depth in their understanding of what is essential in their teaching (p.298).

Design Frameworks

Resources on methodology describe a number of design frameworks, the purpose of which is to provide a structure which links aims of the research-to-research questions and, correspondingly, to the ways in which data is generated. Some common structures identified in the literature were action research; case studies; survey studies, comparative research; ethnography; evaluation; experiment; longitudinal, and cross sectional (McKenney & Reeves, 2018), as well as phenomenology and phenomenography (Cibangu & Hepworth, 2016; M. Patton, 2002).

A careful analysis of each of these as they related to my mixed-methods study, suggested that none aligned exactly with the aims of my study or allowed me the flexibility I needed to work with my data. I chose, therefore, to work towards an informed and valid research study by employing a combination of three commonly used design frameworks which would create a type of 'hybrid' framework comprising a survey study and a phenomenological/phenomenographical research approach. Bazeley (2018) explained that

a hybrid mix of frameworks often aligns with working within a less restrictive research context which can lead to greater independence and a more open mind. The researcher then can practise a "mixed methods way of thinking…thereby transcending the artificially created binary divide in data and methods" (p.339). Saunders, Lewis, and Thornhill (2009) also supported the practice of researchers using more than one strategy in their research design by explaining it in terms of layers of an onion, claiming while researchers may associate a particular research strategy with research philosophies, the boundaries between them are often permeable. An adapted representation of this concept from these researchers which I found to be particularly useful when reflecting on relevant research strategies is presented in Figure 2 below.
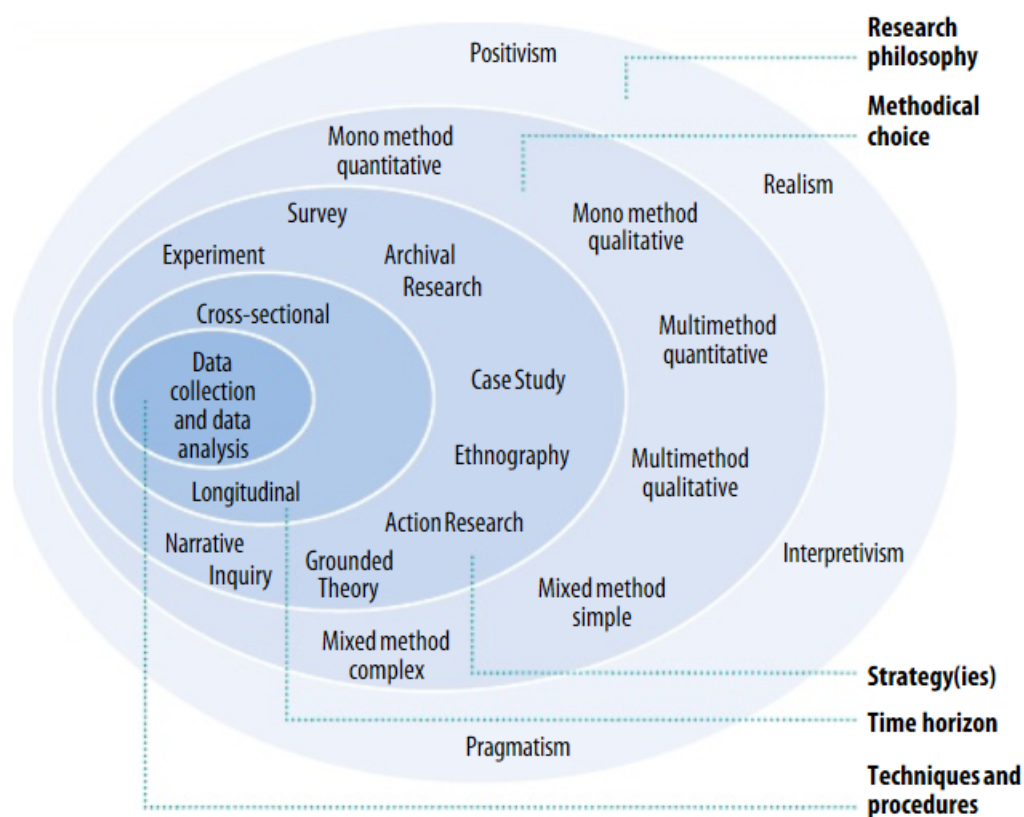
Figure 2: The Research Onion (Saunders et al., 2009)

A summary table of the design frameworks I used to scaffold my 'hybrid' framework, together with their respective aims and processes are provided in Table 5 below. A list of relevant literature related to each is also included, as with this Research Methodology chapter generally, a review of the relevant literature - with its frequent diverse definitions and interpretations of the respective strategies - significantly influenced my decisions around which frameworks best aligned with my research questions, the interpretivist

paradigm and the methodology I used. The three design frameworks are then discussed in more detail as they relate specifically to my research.

Design Framework	Purpose	Procedure
Survey study	To provide a quantitative (numeric) description of trends, attitudes and opinions of educators in Australian universities to blended learning and teaching practice To explore a dual sector university in Australia, by locating it in a context of national concerns related to the factors described above	Quantitative online survey conducted with a purposive sample of educators across a number of Australian universities and within one specific dual sector university
Phenomenography	To describe and record the subjective experiences, understandings, perceptions and trends of working in the phenomenon of blended teaching in Australian universities and within one specific dual sector	Qualitative in-depth, semi-structured interviews conducted with a group of educators and academic developers across a number of Australian universities and within one specific dual sector university
Phenomenology	To gain a deeper understanding of the nature and meaning, essence and structure of everyday experiences of educators and academic developers working in the blended space in Australian universities and within one specific dual sector university	Qualitative in-depth interviews conducted with a group of educators and academic developers across a number of Australian universities and within one specific dual sector university

Table 5: Design frameworks combined into a 'Hybrid Model' in this study.

Survey study

Having developed into a rigorous approach to research especially in the fields of social and psychological research (Singleton Jr et al., 1988), survey research is now generally considered to be a legitimate strategy as well as a methodological tool (Ponto, 2015). This type of research is used to assemble information directly from participants about specific characteristics (e.g., demographics such as age, gender or academic discipline); behaviour and activities, attitudes; beliefs; opinions; expectations and knowledge. As Lipu et al. (2007) explained, survey research is used either to test a hypothesis or to guide research according to objectives. However, as Bloomberg and Volpe (2008, p.193) noted, although surveys are traditionally seen as quantitative tools, they can also be used "in conjunction with qualitative methods to provide corroboration and/or supportive evidence." This was the case in this study in which I designed a survey primarily to gather quantitative data in the form of numbers, as well as qualitative data in the form of words from the 'Comments' field which provided further insight into responses to the closed questions. The details of the survey, including sample selection, question design, data generation and implementation are provided below.

I am confident that the survey has a distinct place in the methodological (mixed methods) design of this study, complementing the phenomenological and phenomenographical approaches described in the following paragraphs and "serving as an adjunct to the other data-generating methods" (Bloomberg & Volpe, 2008, p.18) of semi-structured interviews.

Phenomenology

The most pertinent word in phenomenological research is 'describe' (Groenewald, 2004), i.e., to describe a phenomenon as accurately as possible and to understand a social or psychological phenomenon from the perspective of the people involved in the issue of the research study. Literature in the field of phenomenology generally agrees that it is not about prescribed techniques (Holloway, 1997) or focusing on specific steps (Hycner, 1985) Indeed, as asserted, too much emphasis on method on a phenomenon "would do a great injustice to the integrity of that phenomenon" (Hycner, 1985, p. 144).

For the purposes of this study, phenomenology seemed to be a reasonable fit when combined with the survey framework as illustrated in Table 5 above. The concept of phenomenology assumes that the researcher cannot be separated from their own preconceptions and that this should be acknowledged (Gomm et al., 2000). This resonated with me; my aim was to generate data regarding the perspectives of educators and academic developers about the phenomenon of blended learning and teaching, as well as the factors that may impede or enable successful implementation of the blended teaching model. In the section *Position Statement* below, I acknowledge and discuss my personal place in this study and how prior preconceptions may have impacted my research.

From my epistemological position, I considered that phenomenology aligned well with the interpretivist paradigm of the study. First of all, in this paradigm the method is emergent, rather than pre-determined as is phenomenology, where "the phenomenon dictates the method (not vice-versa) including even the type of participants" (Hycner, 1985, p. 294). My purposive sample participants had experiences relating to the phenomenon studied (Kruger, 1988). Secondly, according to Bentz and Shapiro (1998, p.104), 'doing phenomenology' means "capturing rich descriptions of phenomena and their settings" but "inquiry doesn't mean looking for answers". Again, this paralleled the tenets of the interpretivist paradigm which underpinned my study.

Phenomenography

According to Cibangu and Hepworth (2016), the concept of phenomenography dates back to the mid-1950s. Phenomenography is described as an interpretive, qualitative research approach, the goal of which is to "investigate variation in ways of seeing or experiencing phenomena associated with learning" (Pham, Bruce, & Stoodley, 2005, p.218). Likewise, Booth and Marton (1997) explained phenomenography as a means of describing how people conceptualise, perceive and understand various aspects of a phenomenon. There are, however, some differences between *phenomenography* and *phenomenology* which relate to my study. Firstly, phenomenology explores individual variations regarding lived, and hence retrospective experiences, whereas phenomenography concentrates more on variations between groups immersed in current phenomena, particularly in reference to "questions of relevance to learning and understanding in an educational setting" (Booth & Marton, 1997, p.111). As my study is located in an educational context, with the research

focusing on two different participant groups as well as two institutional contexts (i.e., single sector, wider university context as well as a particular dual sector university), this seemed relevant and prompted me to investigate the framework further.

A second point of interest in phenomenography to my research was that findings are described as categories which illustrate ideas, experiences, perceptions and, most significantly in phenomenographical terms, 'conceptions,' defined as different descriptions of the way people experience a phenomenon (S. Edwards, 2007, p.91). This fitted neatly into the themes that I identified from the data generated from qualitative interviews, a commonly (but not exclusively) used phenomenographical tool. Finally, the phenomenographical research strategy aligned well with the focus on subjectivity in the interpretivist paradigm which is employed throughout this research project.

Sampling

Sampling consisted of 'non-probabilistic' samples: firstly, 'convenience sampling' and, secondly, 'purposive sampling' which included 'snowball sampling' (Waller, Farquharson, & Dempsey, 2015). With snowball sampling the researcher, having selected the research questions and identified the target population, asks one or more participants of that population to increase the sample by referring further potential respondents. A non-probabilistic sample means that participants are not selected at random and, unlike in experimental research, do not claim any kind of representativeness. In this case there could be no claim that the findings of the study represent views related to the wider university community. This is consistent with the interpretivist paradigm adopted in this study and with its aim to achieve an in-depth, qualitative insight into how educators perceive their blended teaching practice. The rationale on researchers' use of purposive sampling is "based on their a-priori theoretical understanding of the topic being studied, that certain categories of individuals may have a unique, different or important perspective on the phenomenon in question and their presence in the sample should be ensured" (Robinson, R. 2014, p.32).

In the convenience sampling process, which is often used in social science research (Bryman, 2014; Waller et al., 2015), the researcher locates any convenient cases which satisfy a particular criterion, then selects those who respond, adding them to the sample until the desired quotient is full. The primary factor in my decision to employ this sampling

procedure was the variety of responses, rich data and interesting findings that I anticipated. I expected these findings within the interpretivist paradigm of this study to be valuable, albeit not statistically representative (White & White, 2016) or generalisable except, at a "demographically and geographically local level" (Robinson, R. 2014 , p.7).

Participants selected under this purposive sampling strategy were homogenous samples, explained by Bryman (2014) as those sharing common characteristics or criteria in that they were all teaching in a blended mode in an Australian university. The aim of this kind of sampling is to describe one or more specific group in depth (Ling & Ling, 2017), which I selected with a purpose (or reasons) for selecting "specific participants, events and processes" (Bloomberg & Volpe, 2008, p.5). The specific groups were educators and academic developers and, as explained previously, all were involved working within the blended learning and teaching paradigm.

Recruitment of Participants

Quantitative phase

The participant pool in this study formed a convenience sample that I considered to be reasonably representative of educators teaching in the blended delivery mode and which allowed for a variety of backgrounds, skills and perceptions (Gavin, 2008). Participants for the survey were currently contracted to universities in Australia and included the dual sector university where I am currently employed, and where I have professional connections who helped to distribute the survey. Participants were all teaching blended courses within the HE or VET sectors, and I expected them to have diverse backgrounds and different levels of expertise with technology, and its integration with their face-to-face teaching.

My aim was to provide a broad national-wide context in which to locate a more specific study of a dual sector university and, as such, I believed that my total target sample size of 100 would be sufficiently large to answer the research questions and to identify patterns and inconsistencies in the data. This decision was based on a study by Onwuegbuzie & Collins (2007) who explained that sample size should be informed by the research objectives, research questions and, subsequently the research design (p.288). The sample size was also influenced by what I considered to be "the number of participants who are

conveniently available to study" (Creswell, 2002, p. 146). Given the nature of purposive sampling, I expected a large proportion of this sample to comprise participants from the dual sector university mentioned previously, and from this number I intended to conduct up to 30 qualitative interviews with educators from that institution. I felt that this number of interviews would provide me with sufficient data to identify peculiarities within that subset of responses from both HE and VET educators.

Qualitative phase

From 97 responses generated by the quantitative survey, I selected 31 participants for semi-structured interviews with educators. This number comprised approximately half of the dual sector sample size (60 survey respondents from the total sample size 97 were from educators working in a dual sector university). This choice was based on what I perceived to be a genuine interest in the survey items, that is, related to the participants whose free text responses provided a level of detail and a willingness to go above and beyond simple responses to the survey questions. Direct quotations that are provided in open-ended responses can "provide a framework within which people can respond in a way that represents accurately and thoroughly their points of view of the world, or that part of the world about which they are talking" (M. Q. Patton, 2002, p.21). Taking into consideration Andrew's (2005, p.1) explanation of useful ways in which researchers use open-ended responses, I adopted a subjective approach of evaluating each comment, assessing its significance to the research questions and searching for quotations that demonstrated an important theme or provided useful insights into the data.

My primary concern in selecting participants for this study was to provide sufficient data to be able to achieve the outcome of the interpretivist approach, i.e., to present "a defended, evidenced, socially constructed, personal interpretation of the subject researched (Ling & Ling, 2017). I made my decisions about the initial criteria of participants with reference to the research questions. Given the complexity around technology and teaching practice across the Higher Education sector (see Chapter 2), I was able to strengthen the research by locating my specific dual sector study within a wider quantitative study of 13 universities. As discussed previously, the purpose of this was to present a holistic overview of the factors impacting blended learning and teaching across Australia.

Finally, in response to a number of themes that began to emerge from the quantitative data (in particular the perceived value of academic development and factors impacting blended learning and teaching practice), I decided to add a second cohort to the dual sector university sample to gain different perspectives. This comprised 16 academic developers, all of whom I approached directly by email and, as with the first group, with whom I conducted semi-structured interviews.

A table describing the breakdown of the sample by numbers is presented below. Table 6 summarises how my quantitative and qualitative data was generated.

Quantitative data generation			
Total number of online survey responses from educators	from	13 universities	97
Number of online survey responses from educators	from	3 dual sector universities	60
Qualitative data generation			
Number of educators selected for semi-structured interviews	from	1 dual sector university	31
Number of academic developers selected for semi-structured interviews	from	(the same) 1 dual sector university	16

Table 6: Description of how data was generated

As discussed in relation to my axiological approach, I was aware that I needed to bring "the researcher into the research" (Berger, 2013, p.6) to enhance the plausibility and credibility of my findings (Buckner, 2005; Cutcliffe, 2003). The ways in which my personal background and experiences have impacted this study are explained in the following section '*Position Statement.*'

Position Statement

As a relative newcomer to the complexities of academia, I have questioned what appears to be an advocacy for distance and detachment in the processes of both research and writing. My reading about the interpretivist paradigm, from which this study emerged, ameliorated my concerns somewhat. What resonated with me most in the literature was

the work of Behar (1997) who assessed the impact of emotion and experience on the process of research and writing, and on the relationship between the observer and the observed. Making a compelling case for the importance of revealing the 'self who observes', Behar described what she saw as a need to combine a commitment to research with a strong personal sense of engagement, thereby enabling the researcher to think and view things in a more emotional and connected way. Behar explained her philosophy in terms of academics assuming the mantle of 'a vulnerable observer' which she defined as "someone who is present with both heart and mind fully engaged, who is willing to be transformed by the experience of being an observer and who is moved by the process of observation and feels compelled by what he or she sees and hears" (p.6). With this disposition as a 'vulnerable observer' I have found it easier not only to engage with my research in general, but also to write this position statement about how my background and life experiences have inspired and impacted this study.

I began my professional life as a psychologist in the late 1960s, having secured a job with the then Australian Broadcasting Control Board (ABCB)[1]. There I had my first contact with educators from the US, where we collaborated on introducing the revolutionary children's television program 'Sesame Street' to Australia[2]. Set in an urban street and named 'Sesame' to suggest excitement and adventure, I was highly impressed with the innovative new technology which included animated characters and imaginative games; these were in stark contrast to the passive construction activities with egg cartons and coloured paper which were the standard fare of Australian TV children's program content at that time. In retrospect, my interest in educational technology and innovative teaching was sparked by Big Bird and Kermit.

Working with the American 'Sesame Street' project staff also influenced me in a number of other ways which are relevant to my present work as an academic developer and to this study. Firstly, I can see an analogy between those early programs and the ubiquitous video

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[1] An Australian government agency whose main role was to regulate commercial AM radio, Commercial TV broadcasting and later FM broadcasting. Disbanded in 1997
(https://www.austlit.edu.au/austlit/page/9316682

[2] An American educational children's television series that combines live action, sketch comedy, animation and puppetry 1969-2000
https://en.wikipedia.org/wiki/Sesame_Street

games of today which, when designed with a pedagogical focus, potentially produce similar gains in learning. Secondly, the worldwide success of Sesame Street led to a growing awareness that the older generation could learn from children. The notion of a 'digital divide' was not debated until it was introduced by Prensky (2011) thirty years later, and the debate around the validity of this concept still underpins many of my conversations with educators. Finally, the years with the ABCB introduced me to the significance and relevance of research in relation to educational technology. The underlying concept of Sesame Street was 'co-viewing' which was based on the premise that children watching the program with their parents would interact and learn more than they would on their own. Grounded in what the US educators claimed was a solid research base (at least considering the limited resource banks accessible over forty years ago), this excited me at the time. Although there were possibly many studies into Australian children's television, I was unaware of them. My interest in research was sparked by the intense and inspirational conversations I had with American educators and educational designers during that period, and I still read current publications on intergenerational gameplay.

The next phase of my life took me to Europe where my rudimentary German inevitably led to teaching English as a Second Language (ESL) instead of psychology. University-educated native English speakers were far less common in Europe in the early 1970s than they are today, and I quickly secured a position in an undergraduate business course where I became inspired by teaching. Behar (1997, p.8) observed that "Memories do not vanish. They recede and leave traces," and it is interesting now to reflect on the teaching practices of those early days. A few academics at my university attempted to engage their students with humour and personality, but for the most part teaching was purely didactic - what we now term 'sage on the stage' delivery (A. King, 1993). Already interested in exploring new and novel ways of teaching, I made what I recognise now as rudimentary attempts to engage my students with the intricacies of the English language. My technology consisted of a wristwatch and a fordigraph machine; the teaching tools available to me were blackboards and chalk with which I drew crude and comical drawings of rooms with prepositions and numerous other grammatical concepts. I energetically scribbled, circled, underlined and manually animated arrows – very much in the same way as I now train educators to do with various whiteboard and tablet apps.

As teaching became more integrated with technology, I moved gradually into this rapidly expanding field over the next fifteen years, establishing an Independent Learning Centre at my present university for CALL (Computer Assisted Language Learning). These were the early days of the learning management system WebCT, and my team and I enthusiastically embraced what it had to offer. For the first time we could deliver content via a computer, and we spent hours developing quizzes, web quests, guided tasks and online assessments. Our early research results indicated that students enjoyed being more active participants in the new learning mode and I became almost evangelical about the use of technology in the classroom. Blended learning was the new paradigm in education, and I was convinced that it would inevitably transform and probably eventually replace face-to-face teaching. I reflect with some regret on the educators I harassed and tried to convert to technology as the remedy to all their problems in face-to-face teaching.

Five years ago, I began working as an academic developer and, while my interest in the potential of technology to enhance learning has continued to develop, my attitude to the reality of what is now termed 'blended learning' has changed. Through training educators, designing blended courses and keeping up with current literature I have gradually become aware that the blended model is all about teaching and learning. Good teaching is good teaching, and technology, rather than being a 'silver bullet' which will fix what is presumably broken in education, is merely another tool in an educator's arsenal. The need to explore and understand the issues around blending technical tools into face-to-face classroom instruction finally inspired me to undertake this PhD. By identifying and critically examining the forces that drive the integration of technology into face-to-face classrooms and by investigating the challenges facing educators in implementing blended courses, I hope that my research will advance an understanding of the blended learning and teaching paradigm across the HE and VET sectors in Australia and provide some insights into future directions.

Research Frameworks

Data generation process

Data generation occurs when the researcher, having decided on an appropriate approach and design frame for the study, employs a set of tools, techniques and methods with which

to generate data to address the research questions (Burns, 1997; Denzin & Lincoln, 2011; Wiersma, 2000).

The methodology for this study was designed in two distinct phases of data generation (see Table 6). The first phase was quantitative methodology in the form of an online survey designed and distributed to educators currently teaching in a blended mode across 13 universities Australia-wide. In the second phase, 31 educators were selected from one dual sector University, as illustrated in Table 6 above. I have described the rationale for this choice in the Data Analysis section below.

Data generation tools

Quantitative tool– description of the online survey

A survey, considered to be one of the most effective data generation tools based on mathematical data (Gall, Gall, & Borg, 2007), was described by Schlosser, Koul, and Costello (2007) as a tool consisting of a series of 'well-built' questions related to a specific topic or themes that is sent or given to an individual, or a group of individuals with the aim of generating data with regard to a phenomenon to be researched.

Jennifer Hunter, Corcoran, Leeder, and Phelps (2013) explained that e-mailed questionnaires collecting words or numbers (or a combination of the two) are effective firstly, because of their flexibility in that they can be tightly structured and, secondly, because they allow the opportunity for more candid and expansive responses if required. Furthermore, as Ritter and Sue (2007, p.5) explained, a survey provided by email makes the data easily accessible, and all the functionality of a Web-based survey can be used. It is also a personal and interactive approach, ensuring respondent anonymity.

The goal of the survey was to identify the potential factors that are most often perceived as hindering or assisting educators in their efforts to deliver effective blended teaching practice and to gain an understanding of their perceptions regarding the concept of blended learning and teaching generally. The combination of this type of quantitative data (i.e., frequencies) with the thick description gained from the later qualitative methods would, I hoped, reinforce and provide multiple interpretations of the findings.

The quantitative data was generated via a self-designed, piloted survey which was based in part on that adopted by Geraldine Torrisi (2012) who designed a survey entitled "*Academics' Use of Technology with Face- to Face- Teaching.*" Torrisi's survey comprised 17 items, mostly requiring multiple choice and Likert scale responses. The survey used in this thesis is based on Torrisi's work and an e mail agreement to use this was approved by her. My survey consisted of 16 items (see Appendix F), some of which were identical (e.g., demographical data questions). Others were expressed in a different way and referred specifically to my particular research questions which differed to those of Torrisi's (2012) thesis.

 The survey was delivered via the Opinio software tool which is supported by the university where I am employed. Opinio is simple and intuitive and, as well as supporting most question types, it includes reporting features and comment reports for generating data for open-ended questions. Advantages of email invitations identified by Ritter and Sue (2007) were evident in this study: for example, the response time was fast - the survey was locked after three months and 25 were returned within a week, the email invitations were easy to distribute from the master spreadsheet, and reminders were set up automatically to enable me to contact potential interviewees immediately after responses were generated. This function of the resend option was set up in the survey software program. Kittleson (1997, p.194) emphasised suggested that the timing for follow-up survey emails is important, with one follow-up mail sent a week after the first invitation as optimal, and response rates from two or more as negligible. Although the email reminder function was useful to keep track of individual respondents over the three-month data generating period, my survey response rate was satisfactory, and it was not necessary to send follow-up e-mails.

As discussed previously, the survey I used for this research corresponded with the phenomenological research approach where the key concept was 'description'. As Fisher and Marshall (2009) caution, "descriptive statistics provide us with a useful strategy for summarising data and providing a description of the sample but cannot provide information for causal analysis" (p.97) and is therefore generally not considered applicable to the description of 'nominal and ordinal' data (i.e. all data apart from comments). I had no intention of making generalisations from the results. My aim was rather to use the

quantitative data to support the more nuanced findings of the qualitative data when relevant (see Section 3, *Analysis and Discussion*).

For the quantitative data generation, I began by sending an online Opinio link of a pilot survey to 10 colleagues from the university where I am employed, explaining in an email the aims of my research and requesting feedback on the survey items and structure. All 10 completed the survey, 9 of whom provided feedback. Based on their comments, I made a number of amendments to what would become the final survey. None of the pilot participants were part of the second survey component.

After I had modified my pilot survey, I sent emails to contacts within the university where I am employed, attaching an introduction document regarding my research objectives, together with an information and consent form (see Appendices B & C). This also contained a request to forward my study details and survey link to other educators whom they thought might be interested in participating in the study. As a result of this snowball sampling technique, the number of universities covered by this study increased from 1 to 13. Overall, the survey elicited 97 responses - a response rate of 72%.

Quantitative survey content

The online blended learning survey *(*see Appendix F) comprised 16 core items (questions). Some basic demographical data was generated, such as gender, age bracket, teaching sector, teaching discipline and years of teaching experience. The other items related to each of the research questions and represented a range of factors that might act as barriers or enabler to educators teaching in a blended mode. The literature that informed these items was drawn from Chapter 2. Table 7 shows which research question was targeted by each of the survey components.

Research Question	Survey Component	Survey Items(s)
1. What technological tools are educators using for their blended teaching and why?	Educators' current (actual) use of blended learning strategies – matrix of technologies, extent & purpose of use	Q.7. How often do you use technology in your teaching? (5 Likert scale items) Q.8. How often do you use technology for organising and managing your course? (5 Likert scale items)
	Ways in which educators integrate technological tools with their face-to-face teaching and how they manage the blend between face-to-face and online teaching	Q.9. For what purpose do you use technology at work? (8 choices of purpose)
		Q.10. Which technological tools within the University's LMS do you use in your face-to-face teaching? (Matrix with 16 items)
		Q.11. Do you use any other technological tools apart from the University's LMS in your face-to-face teaching? (Multiple choice: yes/no)
	Educators' perceptions as to the benefits or disadvantages of integrating technological tools with their face-to-face teaching	Q.12. To what extent do you use technology in your teaching to do the following things? (8 four- point Likert scale items)

Research Question	Survey Component	Survey Items(s)
2. What are the main issues facing educators teaching in a blended environment in Australian universities?	Educators' perceptions around barriers and enablers to successful blended learning	Q.13. How important are the following factors in enabling you to use technology in your face-to-face teaching? (6 four-point Likert scale items) Q.15. To what extent do you agree with the following statements? (Fifteen four-point Likert scale items)
3. How does academic development impact educators' blended teaching practice?	Educators' perceptions of the efficacy of professional development around blended teaching practice	Q.14. How useful would you rate the following types of professional development to the use of technology in your teaching? (8 four-point Likert scale items)

Table 7: Research questions related to online survey items and question type

Quantitative survey design

The conceptual design of the survey instrument was based on 4 of the research questions (together with sub-themes as outlined in Table 8 above), while the content and theoretical design was informed by a body of literature relating to existing surveys in the general field of technology and education (Alammary, 2016; O'Brien, 2015). I included factors such as ways in which educators use technology in their face-to-face teaching; why they select the various technical tools to integrate in their classroom practice; how often they use their university's learning management system and to what purpose; what they identify as positive and negative factors impacting their blended teaching practice; and how useful they find academic and professional development in helping them to achieve their goals within a blended environment.

Types of questions

The survey items consisted of a combination of multiple choice, dichotomous and Likert scale questions.

Multiple choice questions

Multiple choice questions are useful to elicit facts which, in this study, included fields of discipline as well as what technological tools were used in the classroom within the university's LMS, and why these choices were made. Some multiple-choice questions were in a band format, which eliminated the necessity for respondents to supply exact answers (years of teaching experience, age bracket etc.).

Dichotomous questions

Dichotomous questions are often used as screening questions and allow for separate respondent groups to be questioned separately. There was only one such item in this survey, related to whether other technology tools were used apart from the LMS. Some scholars claim low response rates for open questions because they do not fit neatly into either the qualitative or the quantitative data category (O'Cathain & Thomas, 2004; Reja, Manfreda, Hlebec, & Vehovar, 2003). Other researchers argue that they are useful because they are 'non-reactive' (Roberts et al., 2014) by allowing participants a chance to elaborate on answers to the prior closed-ended question. This, then, may offer the opportunity to generate rich data that might otherwise be lost if responses do not satisfactorily capture the significant aspects of the questionnaire item (Groves et al., 2011). I decided, therefore,

on adding an open field 'other tools' to the dichotomous question. Subsequent questions regarding the open field text responses to this question occurred in the Phase 2 qualitative survey stage. Considering the literature outlining both advantages and disadvantages of open-ended questions I opted also to include an 'other' or 'further comments' field to almost all items, regardless of the question type.

Likert scale questions

The final Likert scale survey questions were designed to measure levels of agreement/disagreement for a number of variables in the form of statements related to the perceived value of technology in blended teaching practice. To eliminate the 'neutral' option in such a 'forced choice' survey scale (Allen & Seaman, 2007), I truncated the scale to an even four items (e.g., 'not at all' to 'extremely') in most of these questions. The exception to this was in questions 13 and 14 where I added a 'don't know' option. I made this decision based on the assumption that some educators may either have no strong feelings about educational technology or, alternatively, such strong feelings that they would prefer not to respond. This assumption was validated by Vallacher and Nowak (1994) and Raaijmakers, Van Hoof, t Hart, Verbogt, and Vollebergh (2000, p.241) who claimed that neutral responses do not necessarily mean lack of interest but can indicate knowledge and involvement which participants might not wish to share. This is especially true if the topic is controversial which, I believe is the case with the much-debated topic of blended learning and teaching. Perhaps, in hindsight, a clearer option than 'neutral' might have been an alternative 'would rather not say' which I used in Table 14, 'Demographics of respondents.'

Qualitative tool - description of semi-structured interviews

To achieve consistency with the aim and epistemology of my study, I selected 2 sets of semi-structured interviews as the principal qualitative data generation tool in this second phase of data generation. Semi-structured interviews are common in educational research (R. Edwards & Holland, 2013), and they allowed me to conduct a focused professional conversation with educators and academic advisors while, at the same time, giving me a more visible role in the interview process. This was important to my research because, while the specific purpose was to obtain descriptions of the experiences of these two groups, my intention was also to make use of the many possible nuances of the interview dialogues. I tried to remain flexible as I followed up on angles that I considered to be

important, thus "becoming visible as a knowledge-producing participant in the process itself, rather than hiding behind a pre-set interview guide" (Brinkmann, 2013, p.4).

The interviews contained loosely prepared questions, albeit structured to the extent that they could still be varied according to the participants' responses. By conducting these interviews, I was able to achieve consistency by comparing responses and exploring comparable and different themes, while at the same time maintaining sufficient flexibility to follow up initial responses (Brent & Kraska, 2014) and to follow new lines of inquiry when necessary (Hatch, 2002).

Hatch (2002) explained that informal interview strategies can be adapted to align with any of the qualitative research paradigms. Accordingly, my second type of data was achieved by interpreting two distinct types of qualitative data generated from semi-structured interviews (firstly, educators in the HE and VET sectors and secondly, academic developers working with these educators). By adding the academic developer sample, I was able gain a different perspective on the research questions. Which strategies I used in my interview design and implementation, and how they were adapted to best fit the interpretivist paradigm underlying this study is discussed further in the following section on question design.

Question Design

I selected the face-to-face mode of interviewing over other techniques (e.g., online, video) because it enabled me, as the researcher, to establish a rapport with the participants, and to acknowledge responses to body language (Waller et al., 2015). Face-to-face interviews can also establish a positive rapport with participants and engender sufficient trust to enable the interviewer to deal with controversial responses. However, as Lavrakas (2008) stipulated, for this to occur respondents need to be given sufficient information about the purpose of the survey, how the data will be used and what impact, if any, the information may have on them. Given the current controversy around the perceived effectiveness of blended teaching amongst educators (see Chapter 2), I expected and, indeed elicited some negative responses but was nevertheless able to retain a balanced and measured perspective.

All interviews were audio recorded, and I was able clarify points, pose follow-up questions and request additional information, thereby avoiding closed 'yes' or 'no' responses. I also recorded verbatim accounts and quotations from participants as well as my perceptions in research journal entries. According to Bashir, Afzal, and Azeem (2008), these strategies increase validity in qualitative research paradigms and provide deeper insights into the conversations with participants.

Due to the depth of analysis necessary to generate both theoretical and practical insights into educators' blended learning and teaching practice, I designed a schedule of possible interview questions to provide in-depth, comprehensive, exploratory data and to provide a guide to the important points for discussion.

Qualitative survey content

Hatch (2002) cautioned that formulating interview questions is not easy work. Before embarking on an attempt to design these, I revisited the interpretive paradigm which underpinned the study, referred to my research questions and then consulted the literature in the field to ensure that the questions aligned with the paradigmatic framework.

The proposed questions were developed to address the research questions and were informed by general topics of relevance to blended learning and teaching which I had identified in the literature review, including a review of existing surveys in the area of technology and teaching in HE institutions.

Phase 1: semi structured interview questions with higher education educators
1. Educators' knowledge, conceptions & beliefs about blended learning.
2. Educators' blending teaching practice (i.e., technology & face-to-face);
3. Relevance of academic/professional development to educators.
4. Barriers/enablers to successful integration of technology into the classroom; and
5. Student expectations of technology in the classroom.

Phase 2: semi structured interviews with academic developers (ADs)
1. Understanding of their roles.
2. Attitudes to their academic/professional development work.

3. Academic developers' perceptions about the blended teaching practice of educators.

4. Effectiveness of professional development practices in higher education; and

5. Barriers and enablers to successful delivery of academic development tasks.

The above interview guide, drawn up prior to the interviews, provided a framework of issues within which I was able to ensure that I followed the same basic line of inquiry which led to follow- up questions and, in turn, to both verbal and non-verbal probes. I designed the interview questions carefully to elicit descriptions of experiences; investigate what participants thought about the relevant issues; attempt to understand emotional responses to experiences and thoughts; identify factual information and identify the demographical characteristics of the interviewees.

Qualitative survey design

Presupposition questions

Both before the design and during the interview process, I considered a number of question techniques. One such technique is presupposition which was first described by Yule, 1996, as cited in Khaleel, 2010, p.523, as an assumption that underlies a statement or is embedded in a question "or a sentence, or utterance." M. Patton (2002, p.369) elaborated on the benefits of pre-supposition questions which, he claimed, "create rapport by assuming shared knowledge and assumptions." These types of questions, when used in interviews, imply that the interviewee 'has something to say' which in turn increases the likelihood that this will, in fact, be the case. For example, in my interviews with educators, a pre-supposed question would be "What is the worst experience you have had when trying to introduce a new educational tool into your teaching?" This assumes (presupposes) that the respondent has, in fact, had a bad experience with a new technical tool in the classroom. The interviewee naturally has the option of replying that they have never had such a negative experience. However, as M. Patton (2002) claimed, they will more often respond directly to the matter of which experience to report, rather than dealing first with the question of whether or not they had even had a bad experience.

The presupposition concept proved to be a useful strategy in my study. For example, instead of using the above dichotomous question, "Have you had any bad experiences when introducing a new technical tool into your blended teaching?" which requires the

respondent to make a 'yes/no' decision, I posed a presupposition question, "Can you describe any bad experiences you have experienced when introducing a new technical tool into your blended teaching?" Proponents of the presupposition strategy assert that the researcher can more easily establish a rapport by assuming shared knowledge and assumptions, and that the result is an increase in richness and depth of responses (M. Patton, 2002). Accordingly, I found that participants were more likely to elaborate on a bad experience than to make a decision about whether or not there had been one. I also felt that the presupposition questions enabled my interviewees to tell their personal stories and to talk about their experiences more freely. M. Patton (2002, p.369) attributed this to what he described as "an implication that what is presupposed is the natural way things to occur." In other words, participants in this study might assume that it is natural for there to be negativity around the topic of technology and blended teaching practice and in this way would feel more relaxed and less threatened by discussing it.

It was clear in the literature that there are disadvantages associated with all question types and that care should be taken not to overuse any of them, but rather to consider all as options. Again M. Patton (2002), for example, highlighted certain drawbacks associated with presuppositions, stating that it is sometimes more appropriate to use a dichotomous question. The latter is more useful, though, when followed by a 'Wh' question (e.g., 'why' or 'why not'?). I trialled this in a number of pilot interviews with the following interesting results that confirmed what is stated in the literature. These results are shown in Table 9 below:

'Why?' and 'why not?' follow up questions

Regarding affirmative responses to my closed question "Do you find the professional development (PD) offered by your institution effective?" the simple 'why?' follow up elicited limited information. 'Why?' and 'Why not?' questions assume that reasons are knowable, implying causal explanations about the world (Jann and Hinz (2016). As such they can come across as challenging and can put people on the defensive, with researchers finding it difficult to ascertain answers. This was evident with my interviewees who sometimes appeared to struggle to find a rational answer and added vague phrases such as "*I guess*" and "*I suppose.*" They also exhibited more negative speech patterns, using such phrases as "*I can't be bothered,*" "*it's useless*" and a "*waste of time*". A further interesting

point made by M. Patton (2002) that was also reflected in my pilot study was that 'why?' questions sometimes reveal many different factors and "levels of possibility" to which interviewees can respond. My interpretations of these levels, based on Patton's research are outlined under ('why not?') responses in Table 8 below. Some of these multiple levels of responses while interesting, may not be relevant or within the scope of my study. However, I did find that when participants felt challenged with a 'why not?' question, some provided rich responses to my subsequent open questions; in some cases, educators presumably interpreted the 'why not?' question as a provocation and responded to it accordingly, providing particularly honest and candid opinions.

The 'Wh-'follow up question

In contrast to the previous section, the open Wh- follow up question (i.e., questions beginning with the interrogatives *where*, *which*, *why*, *when*, *who*, *what*) produced nine different kinds of professional development that educators found to be effective. This was valuable data and relevant to one of the main themes of this study - academic development. This is consistent with the literature in which these questions are defined as information- seeking questions which can elicit new factual material and more exposition than dichotomous questions (M. Patton, 2002). A sample of this type of question is shown in Table 8 below.

Do you find professional development (PD) offered by your institution effective?		
Yes	No	I'm not sure
		It's useful, I suppose
No	Why not?	I don't have time for PD (*personal* reason)
		PD makes me anxious (*personality* reason)
		I can't be bothered with PD (*motivational* reason)
		I don't get paid for PD (*economic* reason)
		Everyone says it's useless/waste of time (*social influence* reason)
		It didn't help my teaching (*outcomes* reason)

What types of professional development do you find most effective?
one-on-one sessions
informal 'drop ins'
small groups
colleague mentoring
interactive workshops
phone and online support
conferences
best practice demonstrations
Graduate Diploma course

Table 8: The 'Why? & Why not?' question dichotomy

The questions included in the semi-structure interviews are described below, together with the literature which informed the general topics to be discussed.

As with the quantitative data generation, I conducted a set of pilot interviews prior to the 'real' educator round. The purpose of this preliminary phase was firstly to decide on whether the proposed questions were relevant to what I had identified as some possible themes from the quantitative survey, and whether my overall approach as an interviewer would be appropriate. Secondly, pilot interviews can be a useful starting point from which to decide on the research procedures - that is, transcription followed by coding and analysis (Sampson, 2004) - that I had planned. Hoping to avoid over-familiarity with interviewees and a lack of clarity around my role as researcher, I decided against pilot interviews with the academic developers. I opted for a slightly more prepared set of questions, although I did adhere to the semi-structured format to allow for freedom in the response pattern.

For the post-pilot, second stage educator interviews, I decided to upload the digital audio files immediately for transcription, as transcripts bring researchers closer to their data as well as providing an audit trail of data analysis which might be missed in notes (Halcomb & Davidson, 2006). As an amateur typist, I opted for a professional transcription service which provided verbatim transcription capturing all sounds (including non-verbal communication such as pauses, laughter etc.). By this means, I saved a great deal of time by not having to transcribe personally which meant that I could listen to the audio files and read the transcripts usually within a day of the interview. A number of studies have highlighted inaccuracies in professional transcripts because of misinterpretation of content, cultural

differences, non-verbal cues and language errors (Easton, McComish, & Greenberg, 2000; MacLean, Meyer, & Estable, 2004). Although some of these could be considered as outdated in terms of modern transcription technologies, I was careful to cross check each interview text thoroughly against the original audio files. In line with the ethics consent form previously sent to respondents which assured de-identification and privacy, I used abbreviations in place of names of interviewees. This was useful not only for protection of confidentiality, but also because I was able to make later computer searches to successfully locate both the interviewee and me. In addition to the abbreviated names, I compiled what Olsen (2011, p.39) called a '" core pseudonym list'" which contained interview numbers and a list of mp3 sound files. I stored this pseudonym list as a confidential item in a separate hard drive, as well as on my personal PC drive.

The first phase of the qualitative research comprised 31 semi-structured interviews of approximately one hour in duration. These were carried out with educators who were delivering blended programs across a middle-sized dual sector Australian university, in both the HE and VET sectors. In the second interview phase, I conducted 15 semi- structured interviews with academic developers who were all involved in both their own personal academic development and in delivering professional development to educators delivering blended programs in their various disciplines. These interviews, also of approximately 1 hour duration, also included both HE and VET, and were conducted in the same institution as with the educators' interviews.

The rationale for adding this second cohort of academic developers to my interviewees was not to cross-validate data (as is often the intention with triangulated data); I was interested, rather, in what convergences and divergences might emerge in any of the themes between the two cohorts. The principal objective, therefore, was to increase my level of understanding of the phenomenon of blended learning and teaching, and hopefully to capture different dimensions. Ling and Ling (2017) compared research in the interpretivist paradigm to 'painting in the realist genre' in that it produces an artist's (researcher's) portrayal of the subject (the matter investigated). Two artists (researchers) might produce faithful - and defensible - representations of the subject, but they won't be the same. To that end, I designed this set of interview questions to be fairly open and general in nature, albeit being guided by some assumptions I hold as an academic developer myself. For

example, regarding the impact of academic/professional development on blended teaching practice, my personal experience indicates that there is mixed, often ambiguous feedback from both educators and ADs. My questions were created to probe the issue more deeply, without adding any bias. A list of the questions I used for these semi-structured interviews is attached in Appendix E.

Approach to and design of data analysis

Qualitative data design

Speziale and Carpenter (2007, p.47) stated that the aim of data analysis is "to illuminate the experiences of those who lived them by sharing the richness of lived experiences and cultures" and that the responsibility of the researcher is to describe and analyse what is present in the raw data to bring to life specific phenomena. Crucial to valid analysis is the timing strategy: such strategies include complete analysis after data generation and simultaneous data generation and analysis ('constant comparison analysis'). A third strategy, 'staged' data generation and analysis, often occur with mixed methods research designs; here one type of data is generated and informs the design of analysis of another Bazeley (2012) included this strategy in one of five groups considered to be typical of integrative mixed methods analysis strategies (p.816). I used this approach in this study, bearing in mind the methods, as well as the interpretive paradigm which underpinned the research.

The thematic analysis approach

Braun and Clarke (2006) define thematic analysis as a "method for identifying, analysing and reporting patterns (themes) within data "(p.79). The process is distinctive, because it specifies theory at the paradigm level and allows researchers to build theory into their approach. Thematic analysis is not a theoretical, but rather "theoretically independent and flexible" (Terry, Hayfield, Clarke, & Braun, 2017, p.20), with theoretical assumptions shaped according to how the researcher engages, what questions they ask and how they transcribe the data (Clarke, 2017). I selected this method of data analysis because, apart from minimally organising and describing the data set in rich detail, it is compatible with the interpretivist paradigm that underpins this study. Furthermore, the argument that the researcher needs to take an active role in identifying patterns and themes, rather than expecting or allowing them to emerge passively through the analysis process, parallels the

epistemology of this study. Expanding on this point, Anzul, Downing, Ely, and Vinz (2003, p.205) warned against viewing themes as 'residing' in the data waiting to emerge, arguing that if themes 'reside' anywhere, "they reside in our heads from our thinking about our data and creating links as we understand them."

Pre-Analysis tasks

Prior to making any decisions about my data analysis, I completed the following preparatory tasks. This process was informed by research in the area of data quality claims that the process of generating, characterising and 'cleaning' data is more difficult and time-consuming than the analysis itself (Dasu & Johnson, 2003). The tasks completed, i.e., the 'clean-up operations', are displayed in Table 9.

Aggregation	Task	Example
	Data sorted and expressed in form of summary	List of technical tools from online survey
Filtering		
	List of elements filtered to one type	All technical tools filtered down to LMS tools only
Merging		
	Two data sets merged	Frequency of use of technological tools merged to create data set containing both organisation and learning
Deduping		
	Removed duplicates from data set	Names of universities deduped to achieve single entry for each
Data cleansing		
	Cleaned up values within a column by replacing them	Names of fields of study. 'SES, Soc. Sci' became 'Social Sciences'

Table 9: Clean-up operations performed in Excel spreadsheets

Phases of thematic analysis

Phase 1: familiarisation with the data: interviews with educators

The first step in the data analysis phase was to separate my electronic data into two separate folders, one of which I marked 'raw files' (containing both audio and transcript

files) and the other 'working files' (a copy of the transcripts). This meant that I had a copy of all the transcripts, and for security reasons I saved all the raw data in a Dropbox data analysis folder, as well as on One Drive and a hard disk.

Next, I listened to the audio files to engage with the data and repeated this process to verify accuracy of the transcripts against the audio files. This step proved to be crucial as it highlighted a number of inaccuracies in the texts; some of these were mere typing errors, while others could have potentially obscured the meaning of the interviewee (I assumed that the transcriber took some creative license in interpreting inaudible sections or crosstalk between me and the interviewee). For example, a 'teaching mode' became a 'testing model'; 'techos' became 'teachers'; 'missing content' morphed into 'misusing content' and so on. These inaccuracies in the texts prompted me to listen to the audio files again while I took notes. Such multiple hearings also gave me the opportunity to document speech patterns such as (sometimes uncomfortable) pauses and silences; intonation; emphases; flippant comments and jokes, as well as other observations that I felt would play a role in my analysis. A revision of the audio files also reminded me of the interviews conducted, and I used the memories evoked to add to the field diary entries I had made during the conversations with educators and academics. This amplification, by adding to notes typed up on the day of the interview, produced "full field notes" (Becker, Bryman, & Ferguson, 2012, p.337). An example of one of these entries with the subsequent comments is supplied in Table 10 below. Data from this interviewee was also used for the following section on coding.

Interview with ▓▓▓▓
Date: 12/4/17
Day: Wednesday, 9.30 am

Comment made in the interview	Notes made during listening to the audio	Subsequent comments (amplification)
Generally, he was critical of the use of technology in the classroom. Said it is used ad hoc as a directive, with no thought by course convenors as to its relevance to X with their heavy teaching workloads	*Pause here in the audio. A bit uncomfortable about the 'totally ad hoc' description? Have the feeling he would have elaborated on this.*	*AS might have not been convinced it was totally ad hoc. I should have asked him what 'totally ad hoc' meant. Did it mean the convenor didn't understand work balance issues? Or rationale for technology?*

Table 10: Sample of a field note entry (participant 'AS')

Phase 2: generating initial codes

With the aim of achieving an in-depth understanding of the individuals, context and phenomena in this study, I began the analysis process by manually coding the transcripts to include any ideas, understandings, perceptions, themes or topics that emerged from the interviews (Clandinin & Connelly, 2000). Bearing in mind a warning by Saldaña (2016, p.29) about the potentially overwhelming nature of computer-assisted qualitative data analysis software (CAQDAS) programs for "some, if not all researchers, [because] your mental energies might be more focused on the software than the data", I decided to code on hard copy print outs of the interview transcripts rather than on the computer screen. Notwithstanding the many proponents of CAQDAS, the literature revealed other researchers who confirmed that the manual coding option was a reasonable decision. K. Gallagher (2007), for example, found that although CAQDAS managed data effectively, it can be "inadequate for the nuanced and complex work of data analysis" (p.71), while Saldaña (2016) believes that "manipulating qualitative data on paper and writing codes in pencil gives you more control over the ownership of the work" (p.29). I decided therefore to code manually, 'touching' the data (Saldaña, 2016), anticipating that my manual system would respect the complexity of the blended teaching and learning data and its context, taking additional data "out of memory and into the record. It turns abstract information into concrete data" (Graue, Walsh, & Ceglowski, 1998, p.145). I felt that in this case manual coding resulted in greater depth of engagement and interpretation as the researcher and that the process reflected a developing understanding of the data.

Coding process: educator transcripts

Step 1

After printing the interview transcripts, I began the generation of initial codes, creating an extensive list and colouring chunks of information with highlighters. Maintaining my focus on educators' perceptions of blended learning and teaching, I worked systematically through the interviews, assigning labels (codes) to sections that seemed to be "of potential theoretical significance and/or particularly salient within the social worlds of those being studied" (Bryman, 2014, p.573).

The coding in this round was "data driven" (Braun & Clarke, 2006, p.83), meaning that I identified the codes from the data itself, rather than attempting to fit them into pre-

existing coding categories or to align the codes with research questions or preconceptions. This inductive approach underpinned how I later organised the data into meaningful categories, and then ultimately into themes (Tuckett, 2005).

During this initial coding process, I used numbering but made no other attempt to structure the codes, taking them directly from what the participant said and including relevant quotations in the highlighted sections for which I used different colours. (Saldaña, 2016) terms these 'first impression' phrases…"derived from an open-ended process labelled Eclectic Coding" (p.5).

An example of this first round of coding is illustrated below in the first paragraph of a transcript excerpt from my interview with the educator 'AS'. This example is representative of the initial coding that emerged from each of the 35 interviews with HE and VET educators. Over 260 codes resulted from this initial and exhaustive process, a sample of which is illustrated in Figure 3 below.
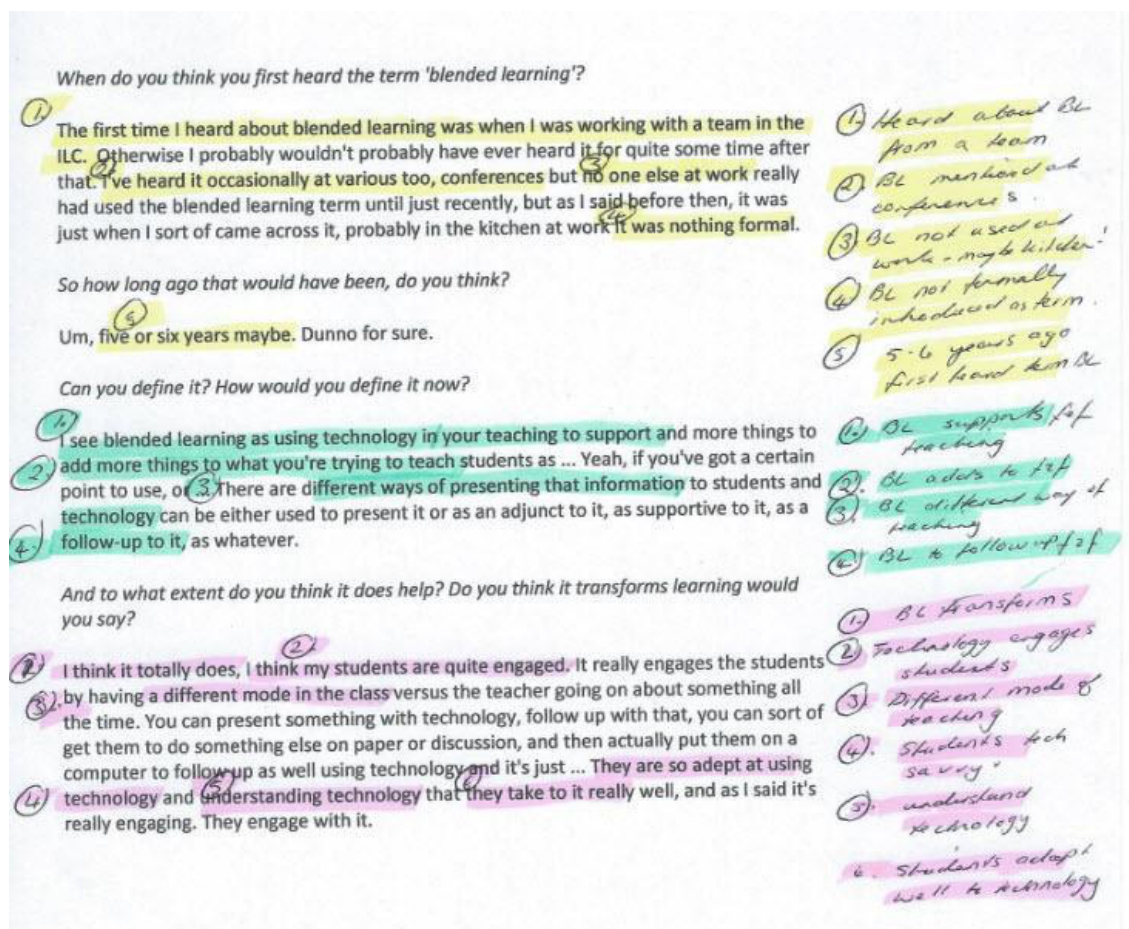
Figure 3: Sample of initial coding process

Step 2

After I had completed the first round of manual coding of the educators' transcripts, I repeated the process on the PC in a Word document. I did not refer to the printed coded transcripts at this stage, preferring to view the codes as 'flexible and fluid' (Lahman, 2017) rather than fixed, with an aim to see how my conceptualisation of the data might grow and develop. Also, while aware that a code should not reduce data (Saldaña, 2016), but rather 'add value' to the research story (Madden, 2017, p.10), I was interested in discovering whether more codes would emerge as I re-read the texts. It became clear that this would be iterative and that codes can evolve and change throughout the process. The result of this round was fewer numbers of codes - some I deleted as redundant, collapsed together, renamed and split into two, and others I summarised as patterns began to appear. This was consistent with Saldaña's (2016) statement that "a code can sometimes *summarize*, *distil* or *condense* data, not simply reduce them" (p.5).

An example of this second round of coding is shown in 5 using the same transcript excerpt from my interview with 'AS' as in Figure 4 below:

Figure 4: Data extract, with codes applied

Step 3

The final step in this initial coding process was to transfer all the codes from Round 2 to an Excel spreadsheet. The number of codes increased rapidly during the first few interviews, after which I felt I had covered most of the content, and I added new codes as they were

identified. This ultimately listed 256 codes, a number that appears to be consistent with researchers such as Friese (2014) who suggested that between 50 and 300 initial codes are recommended. I included Step 2 rather than Step 1 codes in a table of codes, see sample in Appendix A, because they were clearer than the handwritten scribbles of my first coding attempt. Following advice from Ose (2016, p.154), I also included what he termed "inane or insignificant codes," following his system of listing them under the code name "999". I listed these at the bottom of the table in Step 3 so I could re-examine and/or delete them at the end of my analysis.

My table of codes in Excel consisted of three columns – *category*, *code number*, and *description/participant comment.* First, using the information in Figure 4 above as a guide, I copied all the quotations I had found relevant into the column *Quotation.* As stated previously, this list originally comprised 256 codes.

With this spreadsheet the next logical step was to review the codes several times. This iterative, inductive approach determined how I was then able to organise the data into meaningful categories (Tuckett, 2005), as described in Phase 3 below.

Phase 3: creating categories

I began this organisational phase by examining the data at a "semantic level" which Braun and Clarke (2006, p.83) defined as examining the explicit meaning of participants' comments so that this raw data could be assessed 'in a meaningful way' (Saldaña, 2016). By identifying common words and phrases that educators used in the interviews I could group the codes into 15 higher order categories. I reviewed and refined these categories several times by creating mind maps which enabled me to check whether the data was relevant to the broad categories. For these I used the software program *Inspiration* which has a 'rapid fire' function that enabled me to place codes quickly and clearly and note relationships between ideas. This produced codes that were similar to those that emerged from the thematic analysis, although they were not always found under the same category (or, in subsequent mind maps, the same themes).

My decision to try mind maps was based on claims in the literature that the process simulates non-linear thinking patterns and results in a wide range of ideas so that the researcher can reach a common understanding (P. S. Meier, 2007). Figure 5 provided

illustrations of how a mind map can support thematic analysis because the process "allows free thinking" and "clears the mind of previous assumptions about the topic" (p.411). First of all I tried *Inspiration* mapping using my text (i.e. spreadsheets) as a reference point and, secondly, while simultaneously listening to audio recordings of the interview transcripts. An example of an *Inspiration* mind map is illustrated in Figure 5.
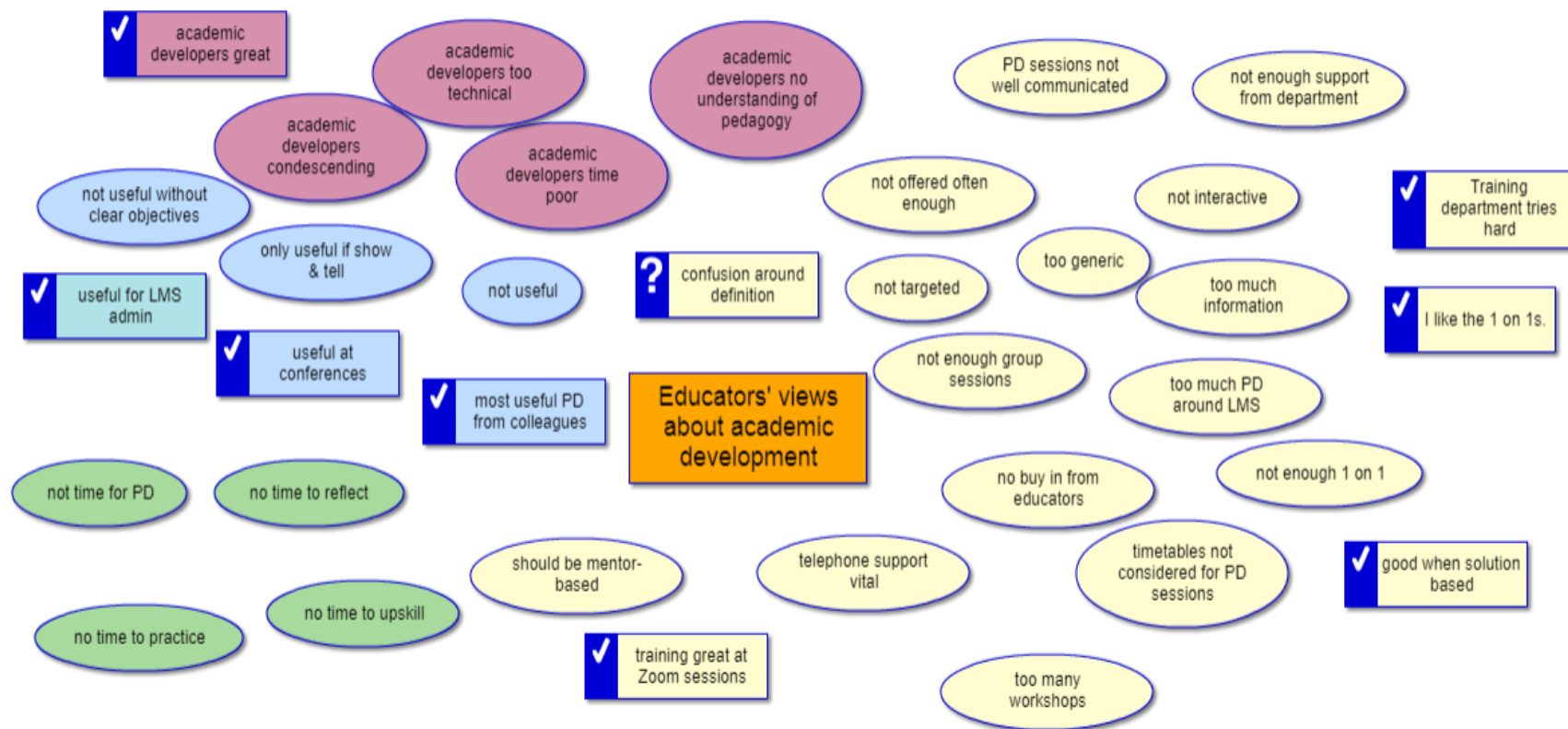
Figure 5: Sample mind map of coding procedure

In this diagram, I grouped similar ideas (codes) by colour (e.g., academic developers, professional development sessions). As comments in the interviews around the category 'educators' views about academic development' appeared to be predominantly negative, I added a 'tick' symbol to show positive ones and questions for any codes that did not fit the category or were unclear.

My experiment with mind maps was, overall, satisfying it provided a rapid dynamic between the data generation and feedback and was a useful adjunct to traditional thematic analysis. That said, I found the process to have limited analytical depth or opportunity for more than superficial analysis: as Burgess-Allen and Owen-Smith (2010, p. 413) stated, it is "harder to get beyond the what to the why."

An interesting discovery during the categorisation process was several codes that I felt belonged to more than one category or subcategory. For example, I initially placed comments from participants about the universities' learning management systems under the 'When educators use technology' category, but some statements were equally relevant under 'University systems & policies' as well as 'When/what/how educators use technology.' Bazeley (2018) claimed that such multiple classification is justifiable in some cases, and that this can be logical within some paradigms (e.g., the interpretive paradigm that underpinned this study). Saldaña (2016) argued, however, that codes should be organised into their most appropriate categories as much as possible, because subsuming them may indicate that the codes and/or categories might not be clearly delineated, resulting in "messy category boundaries" (p.11).

Searching for themes

To generate themes, I began thinking about the relationships between the codes, categories and subcategories that were detailed in my Codes spreadsheet, as well as revisiting the mind maps I had created. As such, this was a nascent analytical process which as Braun and Clarke (2006) claim needs to fit into the overall story that the researcher is telling about the data, so it aligns with the research questions. Initially I identified 5 main themes as listed below which will inform the major areas of later discussion:

1. Institutional issues impacting blended teaching practice.

2. Factors influencing how educators manage the blended learning and teaching environment.

3. Educators' use of technology and how it affects their teaching practice in the blended mode.

4. The role of academic and professional development in achieving successful outcomes with blended teaching; and

5. The dual sector dichotomy and how this shapes blended learning and teaching practice.

From these themes, again using mind maps, I identified sub themes which, according to Braun and Clarke (2006), are useful both for structuring complex themes as well as for establishing "the hierarchy of meaning within the data" (p.92). The sub themes identified for each of the 5 themes listed above are detailed in Table 11 below.

Themes	Sub Themes
Institutional issues impacting blended learning and teaching	Dual sector dichotomy challenges
	Teaching and learning enhancement strategies
	Workload models
	Pedagogical and IT Support infrastructure
	Management and administrative issues
	Departmental cultures (diverse)
	Faculties with 'silo' mentality
Factors influencing how educators manage the blended learning and teaching environment	Level of skill in teaching effectively in blended mode
	Attitude to change
	Educators' professional identity
	Educators' beliefs about teaching and learning
	Attitudes to teaching and learning
	Neuromyths (learning styles, digital natives, data knowledge, age & digital literacy)
	Relationships with stakeholders/to technology
Educators' use of technology and how it affects their teaching practice in the blended mode	Digital tools selected by educators
	How selected digital tools are integrated into face-to-face teaching
	Degree of confidence in integration of technology into face-to-face teaching

Themes	Sub Themes
The role of academic and professional development in achieving successful outcomes with blended learning and teaching	Educators' attitudes to academic and professional development offered
	Types of academic and professional development offered
	Levels of success of academic and professional development offered

Table 11: Sub themes identified for each of the 5 themes

Thoughtful thematic analysis

As well as providing guidelines to describe best-practice thematic analysis, Braun and Clarke (2006) raised several issues that can affect the value of the technique. Firstly, the researcher can be left with "a collection of extracts strung together with little or no analytic narrative" (p.94), a situation that can arise if the analysis report simply makes observations on or paraphrases content from the data, rather than formulating an argument. One method I employed in this study to build on and move beyond thematic analysis, thus avoiding the disconnected list of extracts described by Braun and Clarke (2006), was the use of a research journal (described in the section on Reliability), which enabled me to continually reflect on the coded text that informed the themes. This provided a type of 'audit trail' where I documented decisions made about working with - and within - data from the different cohorts. This process enabled me to maintain conversations between the sources and helped me synthesise concepts and themes.

Secondly, emphasising that identifying themes requires analysis "across the entire data set to make sense of the patterning of responses," Braun and Clarke (2006, p.26) recommended not using research questions as themes. This suggestion, however, appeared to be counter-intuitive, and I could not see how the use of data collection questions as themes would weaken my analysis. On the contrary, researchers cited agreed that process should be iterative, rather than sequential; as Bazeley (2017, p.55) observed, "it involves stepping back to move forward…querying data and challenging hunches." I found that remaining firmly anchored to the research questions enabled me to view the themes in a more fluid and dynamic way. I was able to adopt a recursive rather than a linear process in identifying and recording them and this, I believe, resulted ultimately in a more convincing data analysis.

Interviews with academic developers

As indicated previously, and in order to address issues raised in Research Question 3 (*How does academic development impact educators' blended learning and teaching?*) I triangulated the data for this study by adding a second group of 15 academic developers to my interviewees. The principal objective of this triangulated data was to highlight tensions that may appear in terms of the divergences that might impact on the effectiveness of academic development work. This would hopefully increase my level of understanding of the phenomenon of blended learning and teaching capture different dimensions, nuances and tensions in the data.

Used in this way, triangulation in this study added a different perspective; the analysis of the findings from the academic developers' interviews was still an interpretation but one that provided a richer representation of my topic. To that end, I decided to code these second interviews in the same inductive way as with the first group and to see what new codes might emerge from the data itself.

For the coding procedure, I replicated the phases and steps described previously. The categories identified from academic developers' interviews are presented in Table 12.

*Categories marked with an Asterix indicate categories similar to Educator interviews. In 11 & 12, 'Educator' has been replaced with 'Academic Developer.'

No	Category
*1	University systems & policies re learning & teaching
*2	University infrastructure re technology and learning & teaching spaces
* 3	Perceived impact of educators' feelings about technology on blended learning and teaching practice
4	Perceived impact of educators' attitudes to blended teaching practice
5	Definition of the terms 'academic development' and 'academic developer'
6	Academic development empowering educators vs encroaching on their teaching space
7	Academic developers' relationship with educators
8	Academic developers' personal feelings about academic development activities

No	Category
9	Academic developers' professional judgment about effectiveness of academic development on blended learning and teaching
10	Academic developers' knowledge of and exposure to face-to-face teaching
*11	Academics' developers' views about effective online teaching
*12	Academics' developers' views about effective blended teaching
13	Perceived role of students in the blended learning and teaching space
14	Differences between the Higher Education & TAFE educators in regard to academic/ professional development

Table 12: Categories identified from academic developers' interviews

To identify themes and sub themes from these categories I followed the same process as with the educator interview data as described above. With the aid of mind maps and several iterations of manipulating data in an Excel spreadsheet, I identified the themes and sub themes listed in Table 13 below. How they related to the educator themes in terms of convergences and divergences are discussed in Chapters 5 and 6.

Themes	Sub themes
1. Institutional issues impacting blended learning and teaching	a. Funding targeted to business projects b. Senior management influences c. Practitioners employed, rather than teachers d. IT Support infrastructure (supporting or inhibiting factors) e. Degree of constructive alignment between blended teaching & resources f. Academic developers' role as viewed by the university ('fixers' not trainers) g. Positioning of academic development departments h. Importance placed on academic development (e.g., time) i. Departmental culture j. Professional classification implications for academic developers (e.g., research, credentials) k. Faculties work in silos re academic development
2. Intrinsic factors influencing effectiveness of academic developers' delivery of professional development	a. Background and skill level in training b. Confidence with technology and training c. Willingness, motivation to upskill d. Institutional & departmental change management e. Age bias f. Attitude to colleagues in and outside the academic development team g. Understanding of HE & VET differences

Themes	Sub themes
	h. Relevance and value of feedback for reflection
	i. Relevance of & support for academic developers in regard to research
	j. Academic developers' status within the university
3. Refocus on students as the end product of academic development for educators needed	a. Lack of effective student feedback on blended courses
	b. Educators not reflective about teaching practice (except in VET)
	c. Educators' misconceptions about student needs and skills re technology
	d. Entrenched beliefs & concepts (e.g., learning styles & digital natives) need to be challenged
4. Effectiveness of academic and professional development in achieving successful outcomes with blended learning and teaching	e. PD Needs to be targeted rather than generic
	f. More diversity in types of academic and professional development should be offered
	g. PD time allocation needs to be increased
	h. More engagement with educators is needed
	i. Training should target educators' strengths (including f2f teaching)
	j. Too much diversity in digital literacy

Table 13: Themes and sub themes identified from educators' interviews

Quantitative data

Online survey

In simple terms, descriptive statistics are about the characteristics of a set of data which is then summarised and organised so it can easily be understood (Z. C. Holcomb, 2016; Moore, 1996). There are three main types of descriptive statistics: first of all, measures of central tendency (averages); secondly measures of variability; third, frequencies which count the number of times that each variable occurs in a study. In this survey I used the third type of descriptive statistics.

For the preliminary descriptive phase of analysis, I used an Excel spreadsheet to collate the data which I had exported from Opinio. I added separate tabs in which I created tables, below which I listed the comments/responses to the respective questions. In all, the spreadsheet comprised 15 tabs. By carefully analysing these tables, I was able to align the numerical data to relevant themes and sub themes identified from the literature and my research questions, and to assess to what extent the frequencies might either support my

interpretations of the data or reveal incongruent items. As incongruity can add value to a study (Braun & Clarke, 2006; Ling & Ling, 2017), I intend to integrate and interpret all potential elements of divergence in the Results section to follow.

Chapter Summary

In this chapter I have explained how the interpretivist paradigm and its underpinning ontology, axiology and epistemology guided a mixed research design inquiry into educators' perceptions of the concept of blended learning, how they manage blended teaching practice and to what extent they achieve it. The study involved 97 educators and academic developers from across both the HE and VET sectors from 13 universities Australia wide. Three of these 13 universities were dual sector universities.

In writing this chapter I have referred to a large body of research in the area and have interwoven these into the text. A useful lecture by Clarke (2017) elaborated on what constitutes best practice thematic analysis and this was particularly useful and relevant to my study. I also kept in mind guidelines on thematic analysis from Braun and Clarke (2006) by familiarising myself thoroughly with the data; generating codes and themes; refining themes numerous times and reviewing them in relation to both the coded extracts as well as the overall, triangulated data set. I managed the data manually, employing traditional thematic analysis in the form of Word and Excel spreadsheets. For the qualitative analysis, I also experimented with mind maps to further immerse myself in the data and to organise categories and themes into a clear graphical summary.

While aware that handling data such as that generated in this study should be flexible, open and iterative (still very much a work-in-progress), I believe that the analytic process described in this chapter has positioned me well for the rich and detailed Results and Discussion chapters to follow

Section 3
Analysis and Discussion

Chapter 4: Quantitative Survey Results

Structure of Chapter

As described in the Data Approach section below, this chapter describes the results of the online survey. The following Chapters 5 and 6 discuss the results of the survey and the qualitative semi structured interviews.

Data approach

I have described the data approach as integrative or merged, because the quantitative method (an online survey) and the qualitative method (two sets of semi-structured interviews are intertwined in the analysis and discussion of the overall survey data. In one sense, as Bazeley (2017) eloquently stated,

> *Almost all integrative methods can be viewed as hybrid, as numbers always have qualitative features and words are readily (and regularly) counted, sorted and connected. The difference in an integrative or "merged methods" study (Gobo, 2015, p.331) is that a specific focus is directed to the integral nature of the elements that have been generated, analysed and discussed.*

In this chapter, the quantitative data generated from the online survey is reported and described. In alignment with the integrated or merged mixed methods approach mentioned previously (see also Chapter 3, *Methodology*), I have made no attempt to carry out a statistical analysis or make inferences from the quantitative data in this study. Rather, this data will integrate with and expand on the findings of the qualitative data in Chapters 5 & 6, when relevant. As Bazeley (2017, p.816) states, integrating the different data elements in this way "produces findings that are greater than the sum of the parts." Statistical results she explains, should always be evaluated "as part of the entire research process and, wherever possible, in relation to preliminary or parallel qualitative data" (Bazeley, 2018, p.337).

Quantitative data results

Demographics of respondents

Table 14 summarises the relevant demographics of the 97 educators who responded to the survey. The sample covered 13 universities Australia-wide. Educators comprised cohorts from both the HE and the VET sectors. The subject discipline categories were not designed

to be mutually exclusive, although no participants indicated that they taught in more than one area or in a discipline not listed in Question 5 (see below). The table shows the number of educators' responses to each category.

The demographic data in Table 14 was collated in response to survey questions 1-6. The question format for Question 5 was multiple choice and allowed multiple choices.

*The data for the category 'Type of University' was informed by Question 3 (see below). From these 96 open text responses, I was able to identify the respective universities as HE only or as dual sector - HE & VET. One participant did not respond to this question.

Category & Survey Question		No. of participants
Question 1: Gender		
	Male	38
	Female	57
	Would rather not disclose	2
Question 2: What is your age bracket?		
	18-25	0
	26-34	8
	35-54	57
	55-64	25
	65 or over	7
Question 3: At which university do you teach?		
	13 universities Australia-wide	96 responses
Question 4: In which sector do you teach?		
	Higher Education (HE)	65
	Vocational Education & Training (VET)	32
Question 5: In which field do you teach? Please indicate if you teach in more than one.		
	Health	10
	Education	19
	Science & Engineering	11

Category & Survey Question		No. of participants
	Management, Social Sciences & Commerce	28
	Humanities & Languages	12
	Architecture, Art & Design	3
	Criminology & Law	5
	Environmental Studies	1
	Information Technology	9
	Other	14
Question 6: How many years teaching experience do you have?		
	Less than 5	7
	6 -10	21
	11-15	19
	16 -24	24
	More than 25	26
* Type of university:		
	Higher Education only	38
	Dual sector (HE & VET)	57
	Did not respond	1

Table 14: Demographics of respondents

From Table 14, it can be observed that the majority of respondents were in the middle age group, between 35 and 64 years. Just over one quarter were teaching across the broad humanities subject discipline areas. Over half of the respondents were female, and half had been teaching for more than 10 years.

In regard to the subject discipline area, Table 14 revealed that the highest number of respondents taught in Management, Social Sciences and Commerce. This was possibly due to the broader range of this category, which encompassed more subjects than the other disciplines. For example, the 'Commerce' category in Australian universities may include subjects such Economics, Accounting, Entrepreneurship, Finance, International Business, Management and Marketing.

The lowest number of respondents taught in the Environmental Studies area, perhaps because with environmental issues playing an increasingly dominant role in world policy and the media, this field overlaps with other more traditional areas, such as architecture, business and management, engineering and technology, humanities and social sciences.

The data in Table 14 revealed that although slightly less than half of the sample represented the VET sector generally, over half the number of participants were represented by the one dual sector university as described in the Introduction above. This was possibly the result of the snowball sampling technique as discussed in Chapter 3, *Research Methodology*.

Educators' use of technology for teaching, course management and organisation

As discussed in detail in Chapter 2, *Literature Review*, there is currently much debate in the field of blended learning and teaching regarding the extent to which educators use technology for teaching purposes, and the role that technology plays in managing and organising their courses. To gain insight into this issue, participants were asked to respond to 2 survey questions. The results of responses to these questions are illustrated in Tables 15 & 16 below.

The data for Tables 15 and 16 was collated in response to survey questions 7 & 8. The question format in both cases was multiple choice, comprising 8 items Participants were asked to select 1 item only.

Q.7: *How often do you use technology in your teaching? Please add any further comments.*

Frequency of educators' use of technology for teaching	No. of participants
Every day	69
A few times a week	22
Once a week	5
A few times a year	1
Never	0

Table 15: Frequency of technology use for teaching

Q.8: *How often do you use technology for organising and managing your course? Please add any further comments.*

Frequency of educators' use of technology for course organisation & management	No. of respondents
Every day	70
A few times a week	22
Once a week	5
A few times a year	2
Never	0

Table 16: Frequency of technology use for course organisation & management

Tables 15 & 16 show that the majority of educators used technology every day, with very few participants using it as infrequently as 'once a week' and hardly any using it only 'a few times a year' or 'never.' According to the data in the tables, there was a negligible difference in the frequency of use of technology for 'teaching' and use of technology for 'course organisation and management.'

Educators' use of technology at work

In this section, participants were asked to select a number of reasons why they use technology at work. Figure 6 shows responses to Question 9, below. Participants were able to select as many responses as they wished from the options presented as illustrated in the graph.

The data for Figure 6 was collated in response to survey question 9. The question format was a matrix, comprising 16 items.

Q.9: For what purpose do you use technology at work?
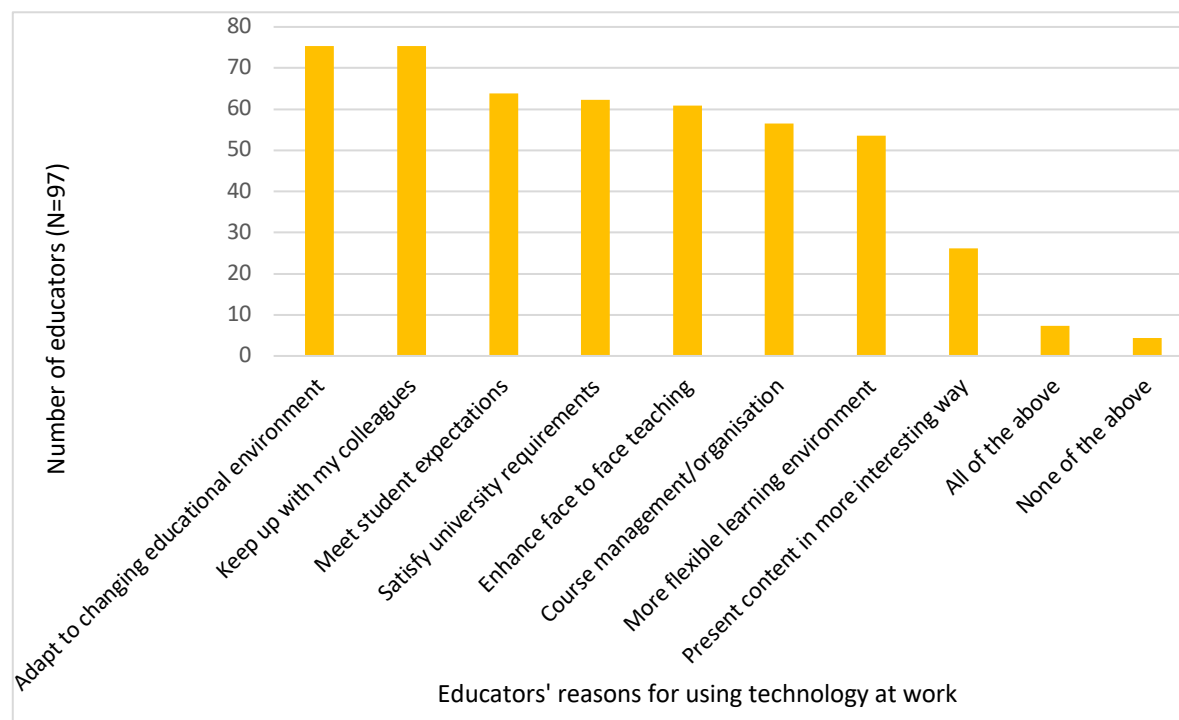
Figure 6: Educators' reasons for using technology at work

Figure 6 shows that the majority of educators used technology to conform to university requirements and expectations; to satisfy cultural changes such as a shifting educational environment; the need to keep up with colleagues; for course management and organisation. Almost the same number used technology to meet student expectations, enhance face-to-face teaching and to provide more flexibility for learners.

Finally, according to the data illustrated in Figure 6, technology was used to present content in a more interesting way by only 26 educators, while 7 used technology for all the above purposes, and 4 did not use it for any of these reasons.

Educators' use of tools within the Learning Management System

This question required educators to indicate which technological tools embedded in their university's Learning Management System (LMS) they used in their face-to-face teaching. Participants were given the choice of choosing one or multiple tools.

The data for Table 17 was collated in response to survey question 10. The question format was a matrix, comprising 16 items.

Q.10: Which of the following technological tools within your university's learning management system do you use in your face-to-face teaching? If you use other LMS tools not listed, please add them in 'other' below.

Frequency of Responses (n= 97)	LMS tool
79	Announcements
77	Discussion Board
73	Assignments
63	Quizzes/Surveys
60	Turnitin
58	Collaborate
52	Mashups
36	Blogs
31	Wikis
27	Course links
14	Grade Centre
14	E-books
12	VoiceThread
11	Portfolios
7	Lecture Capture
6	Learning Analytics
5	Other

Table 17: Educators' of LMS technical tools

According to Table 17, announcements, discussion boards and assignments were the most popular LMS tools used, with over 70 educators using these in their face-to-face teaching. Sixty three and 60 educators (90% and 85% respectively) used quizzes/surveys and the text-matching software tool, Turnitin.

Collaborative tools such as wikis and blogs were used by 36 (51%) and 31 educators (44%) respectively while 27 (29%) used LMS course links. Table 17 further shows that the Grade Centre, e-books, VoiceThread, and portfolios tools were used by less than 30% of educators. The least popular LMS tools were Lecture Capture and Learning Analytics which were used by only 7 and 6 participants respectively (approximately 10%).

Educators' use of non-Learning Management System (LMS) tools

In this section educators were asked to indicate whether or not they used any technological tools which were not part of their universities' learning management systems.

The data for Figure 7 was collated in response to part 1 of Question 11. The question format in this part was a binary multiple choice (2 responses - 'yes' or 'no').

Q.11: part 1: Do you use any other technical tools apart from those built into your university's learning management systems in your face-to-face teaching?
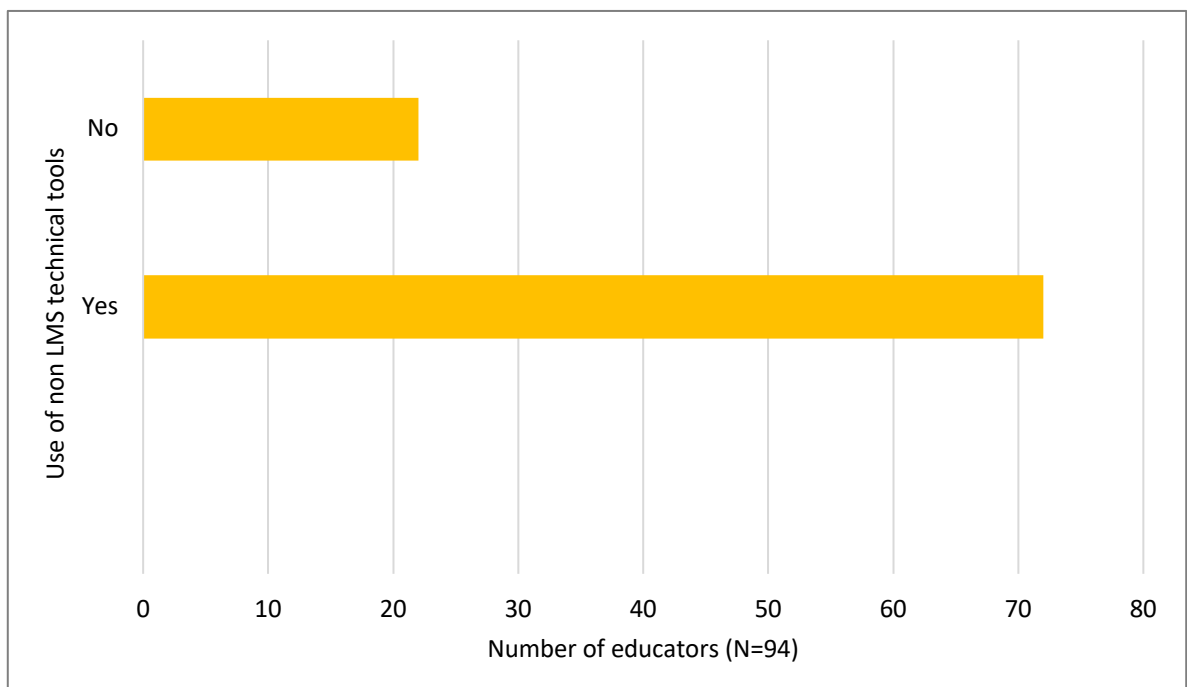
Figure 7: Educators' use of non-LMS technical tools

In answer to Question 11 (part 1), Figure 7 clearly shows that the majority of educators did use technical tools other than LMS-embedded tools in their face-to-face teaching, with 72 participants (77%) responding to this effect. Only 22 out of the 94 educators (23%) who answered this question did not use non-LMS technical tools.

Q.11: part 2: If so, please list them below (e.g., Facebook, YouTube, Google Docs, quiz software).

In responses to the open-text field in Question 11 requesting participants to list non- LMS technical tools if they used them in their face-to-face teaching (*see part 2 of Q.11 above),* educators identified 39 non-LMS teaching tools. A list of these tools with the number of respective users and a description of the type of tool is presented in Table 19 below. Forty two out of 97 survey participants responded to this question.

The data for Table 18 was collated in response to part 2 of Question 11. The question format in this part was an open text field. The tools identified as applications ("apps") are marked with an asterix. * Apps are defined here as a type of software that allows users to carry out specific tasks. They can be installed on desktops, laptop computers or mobile devices.

Technological Tool	No. of users	Type of tool
YouTube	30	Video sharing website
Padlet *	9	App to create and collaborate an online bulletin
OER	6	Free open licensed text, media and digital resources
Socrative *	5	Mobile app for classroom engagement
Lynda	5	Web-based Online training
SlideShare	5	Web 2.0-based slide hosting service
Ed Tech Talk	5	'Community of Practice' interested in technology
Ted Talks	4	Online talks under the slogan "ideas worth spreading"
Kahoots *	4	Free game-based learning platform
I Spring *	4	Quiz program that delivers HTML eLearning courses
Facebook	4	Social networking website and service
Google Docs	3	Web-based word processor
Zoom	3	Cloud conferencing tool
Clickers	3	Hand-held counting device, often used in quizzes
Biteable	3	Video maker for online video clips
Vimeo	3	Video recording software
Calculators	2	Electronic device used to perform mathematical calculations
Camtasia	2	Video screen recording and editing tool

Technological Tool	No. of users	Type of tool
Articulate	2	E-learning resource development software tool
Doodle	2	Online scheduling tool
Poll Everywhere *	2	Interactive app used for student engagement
E-mail	2	Communication with students
PowerPoint	2	Lecture upload presentation software
Google Images	2	Image website for inclusion in online resources
Tense Buster	2	Online grammar software program
Khan Academy	2	Online expert-created content and resources
Twitter	2	Online news and social networking site
Zeetings *	1	App to track interaction (polling) and student data
Peergrade *	1	Online app/platform to facilitate peer feedback sessions
Sway	1	Web-based presentation application by Microsoft
Quitch *	1	Mobile app for gamification
Pinterest *	1	Mobile app used to collate & collect information, particularly visual information
Moxtra	1	Collaboration platform
Hipchat *	1	Messaging app
Slack *	1	Messaging app
British Council	1	Website for grammar and academic skills
Adobe Connect *	1	Web app conferencing software
Asana *	1	Organisational app for planning tasks and collaboration
Trello *	1	Task management app with a whiteboard interface
Meistertask *	1	Task management and collaboration app
iCal *	1	Personal calendar app produced by Apple

*Table 18: non-LMS tools (and 'apps' *) used by educators*

According to the data in Table 18, YouTube was by the far the most popular individual tool used - 30 (71%) of educators listed this. Although YouTube is an independent video streaming site, the high usage illustrated in Table 18 indicates that is presumably frequently used within the LMS as a delivery platform.

To provide a better understanding of how the non-LMS tools were used by educators in this survey, I created categories based on the list in Table 18, above. These were informed partly by the open text survey responses and, when the tool type was merely listed with no explanatory comments, by a Google search carried out to identify the type of tool. It should be emphasised, however that these categories are not necessarily mutually exclusive in that some tools could be included in more than one group, e.g. some organisational tools may well include collaborative documents, just as 'online tutorials' might be categorised as 'online websites.'

The categories are represented in Table 19 below, together with the number of respondents who reported their use of each tool category in their face-to-face teaching.

The data for Table 19 was collated from the data presented in Table 18.

Category of non-LMS tool	Number of educators using tools in category
Apps	25
Quiz creation tools	22
Online learning sites	14
Organisational tools	11
Presentation tools	8
Organisational tools	8
Course design tools	6
Online tutorials	5
Communication tools	3
Miscellaneous (e.g., combined categories, unknown tool)	5

Table 19: Category of tools used by educators in f2f teaching

According to the data presented in Table 19, the most popular category of non-LMS technologies used by educators were, firstly mobile applications with 25 out of 42 (60%) respondents using such 'apps'. This was followed by quiz creation tools which 22 (52%) respondents used. Finally, online learning sites were used by14 users (33%) and

organisational tools which 8 respondents used (19%). Non-LMS communication tools were used by only 3 participants (7%).

Reasons for educators' use of technology

Chapter 2, *Literature Review,* identified a number of reasons why educators use technology in their face-to-face teaching. This theme was identified as potentially a major barrier and enabler to the efficacy of blended learning practice. Trends and patterns around this theme are shown in the figures and tables below.

Q. 12: *In your current teaching, to what extent do you use technology to do the following things? If you have any comments, please add them below.*
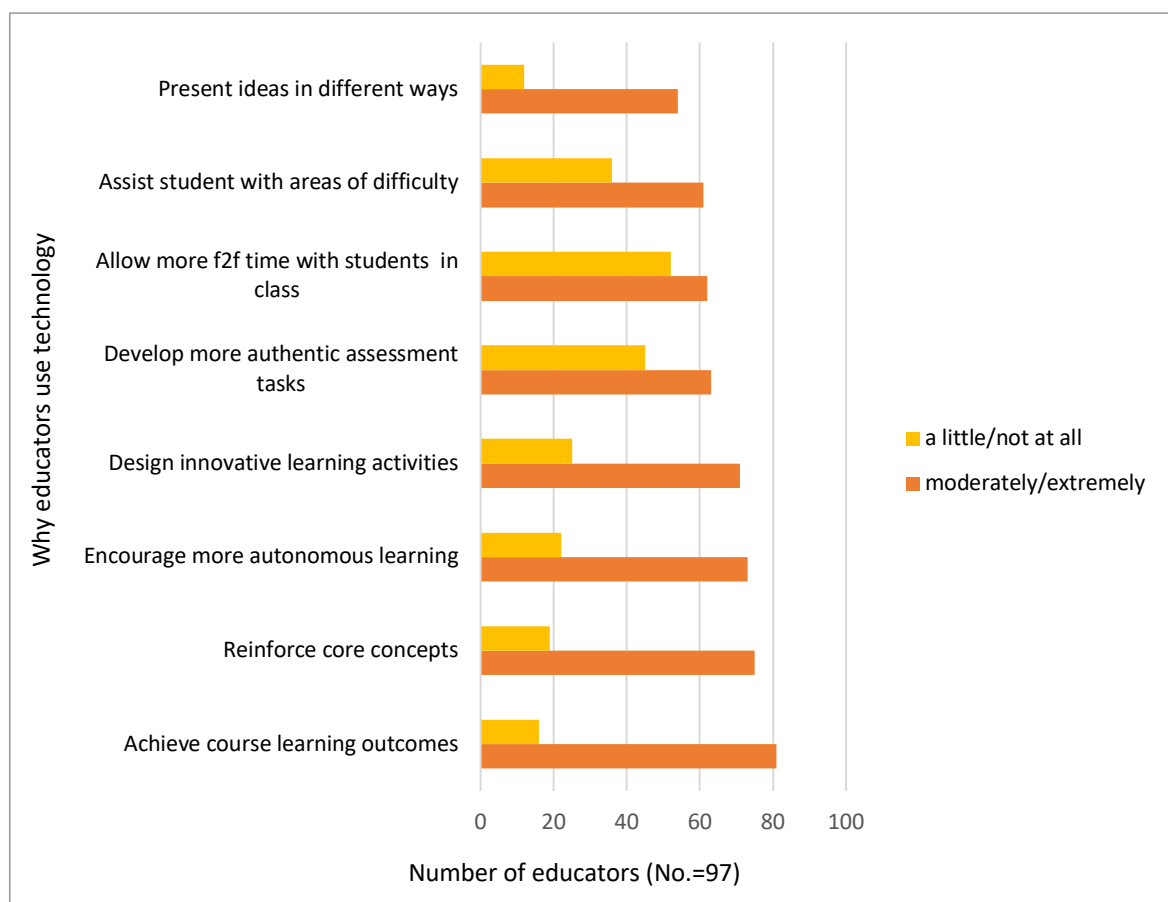
Figure 8: The extent to which educators use technology for the above purposes

This data was compiled in response to survey question 12. The question format was a Likert scale, comprising 8 items.

In order to provide a truer interpretation of the data represented in Figure 8, I grouped the 'moderately' and 'extremely' levels together to represent a relatively high extent to which

educators use technology for the 8 different purposes identified. In the same way, 'a little and 'not at all' were combined to suggest a relatively low extent of technology use for these purposes.

According to Figure 8, 81 participants (84%) used technology to a 'moderate' or 'extreme' extent to achieve course learning outcomes, with only 16 (17%) using technology 'a little' or 'not at all' for this purpose. Eighty-one participants (83%) also used technology to a 'moderate' or 'extreme' extent to reinforce core concepts, to encourage more autonomous learning, and to design innovative learning activities.

In the 'moderate' or 'extreme' range, numbers represented in Figure 8 showed that 80 (82%) educators used technology for the purposes of learning, i.e., to achieve course learning outcomes, with 75 (77%) using technology to reinforce core concepts and 73 (75%) finding technology useful to encourage autonomous learning. The aims of designing more authentic assessment tasks, allowing more f2f class time and assisting students with areas of difficulty were the next most popular reasons for educators' technology use - 63 (65%), 62 (64%) and 61 (63%) respectively) Only 54 educators (55%) used technology to a moderate or extreme extent to present ideas in different ways. This was supported by the low number of 12 educators who used technology for this purpose (12%).

Important factors enabling technology with face-to-face teaching

Figure 9 is based on 6 items informed by the current literature into what main factors may impact educators who are teaching in the blended delivery mode (see Chapter 2, *Literature Review*).

The data for Figure 9 was collated in response to survey question 13. The question format was a Likert scale, comprising 6 items and participants could select more than one response.

Q. 13: How important are the following factors in enabling you to use technology in your face-to-face teaching?
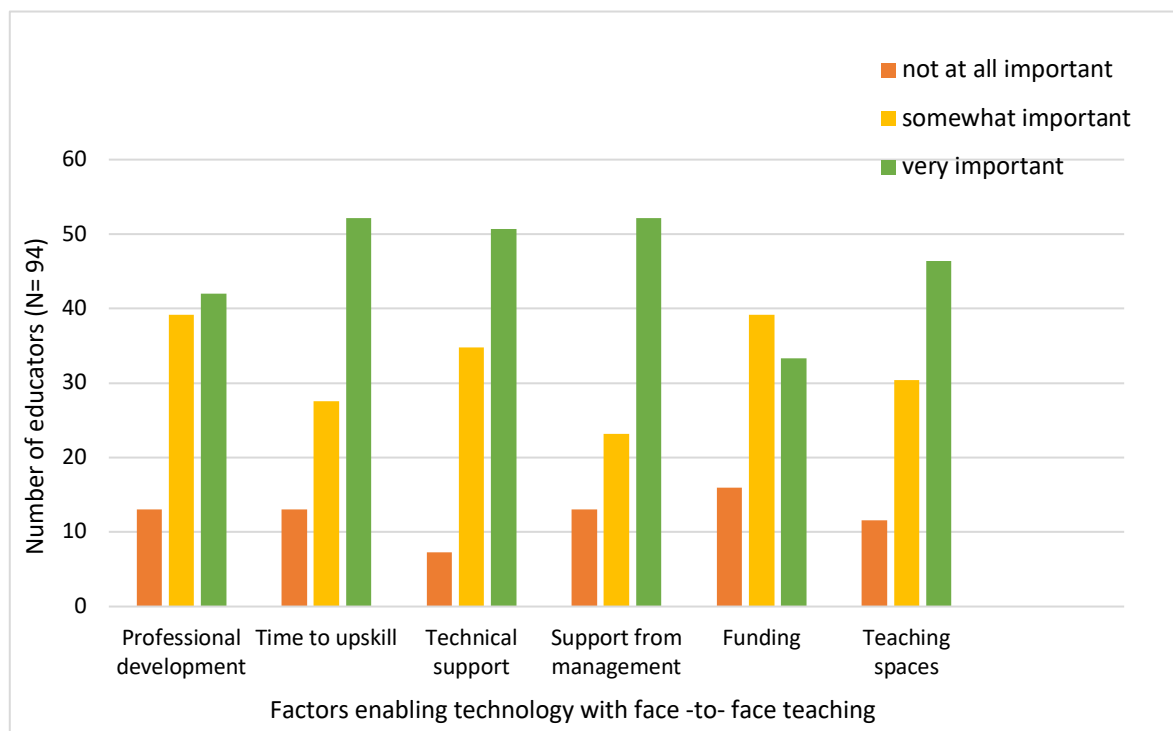
Figure 9: Important factors enabling technology with face-to-face teaching

Figure 9 showed that time to upskill, support from management and technical support were considered by educators to have almost the same high degree of impact on their use of technology in face-face teaching, with 52 (55%) and 51 (54%) respondents respectively rating these factors as 'very important'. Only 7 (7%) respondents believed technical support to be 'not at all important,' while only 13 (14%) felt that time to upskill and professional development were 'not at all' important.

Educators' ratings of usefulness of types of professional development

The data for Figure 10 was collated in response to survey question 14. The question format was a Likert scale, comprising 6 items.

Q.14: How effective would you rate the following types of professional development to the use of technology in your teaching? Please add any other types of useful professional development.
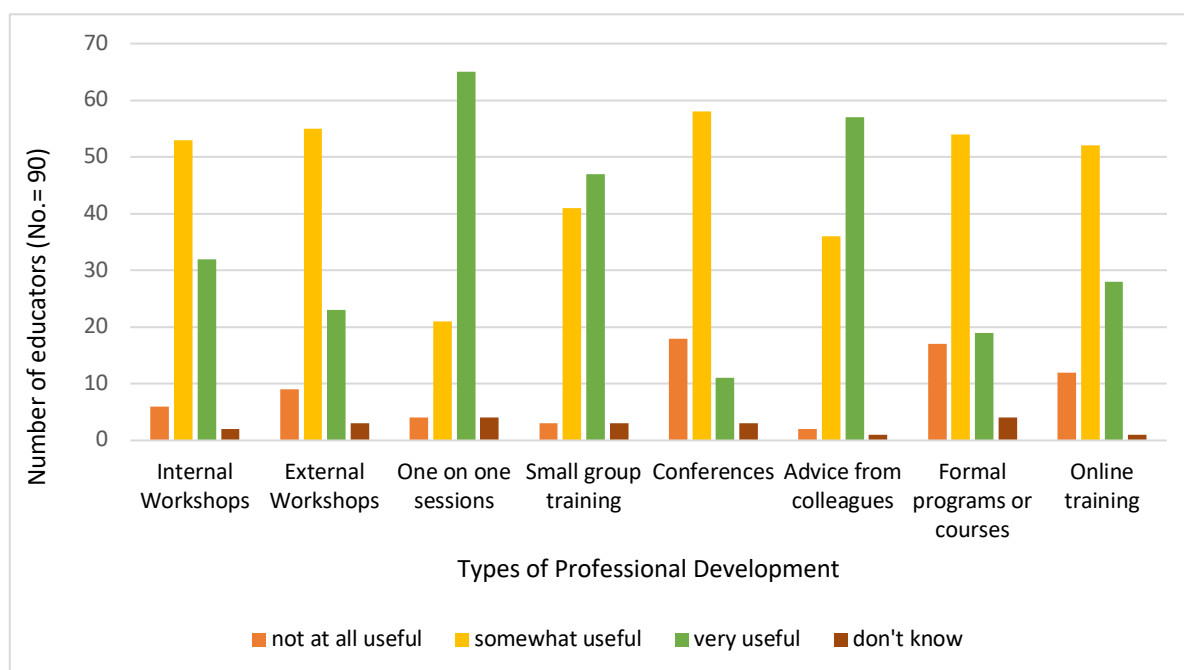
Figure 10: Educators' ratings of the usefulness of types of professional development

Overall, according to Figure 10, the most valuable type of professional development was considered to be advice from colleagues. This was selected by 57 (63%) of survey participants as 'very useful' and 36 (40%) as 'moderately useful.' Sixty-five educators (72%) considered one-on-one sessions to be 'very useful', although a lower number of 21 educators (23%) believed this type of training was 'somewhat useful.' Another popular choice of professional development was small group training, with 47 educators (52%) rating this as 'very useful and an only slightly smaller number of 41 (46%) considering it to be 'somewhat useful.' The least important types of professional development, according to Figure 10 were conferences, as well as formal programs and courses which were deemed by 18 (20%) and 17 (19%) participants respectively to be 'not at all useful.' Internal workshops were believed to be more important overall than external workshops; Fifty-three respondents (59%) found internal workshops to be 'somewhat useful' and 32 (36%) thought they were 'very useful'.

Educators' perceptions of factors that impact the use of technology in teaching practice.

Q 15: To what extent do you agree with the following statements? Please add any other relevant comments.

Figure 11 illustrates the extent to which educators agreed or disagreed with a number of statements related to the use of technology in impacting their face-to-face teaching. I identified the 15 items (statements) listed in the graph based on the literature on the

following themes: blended teaching practice; educators' use of technology and the impact of academic development discussed in the literature.

Extent to which educators agreed with the statements below

█ moderately/extremely   █ not at all/a little
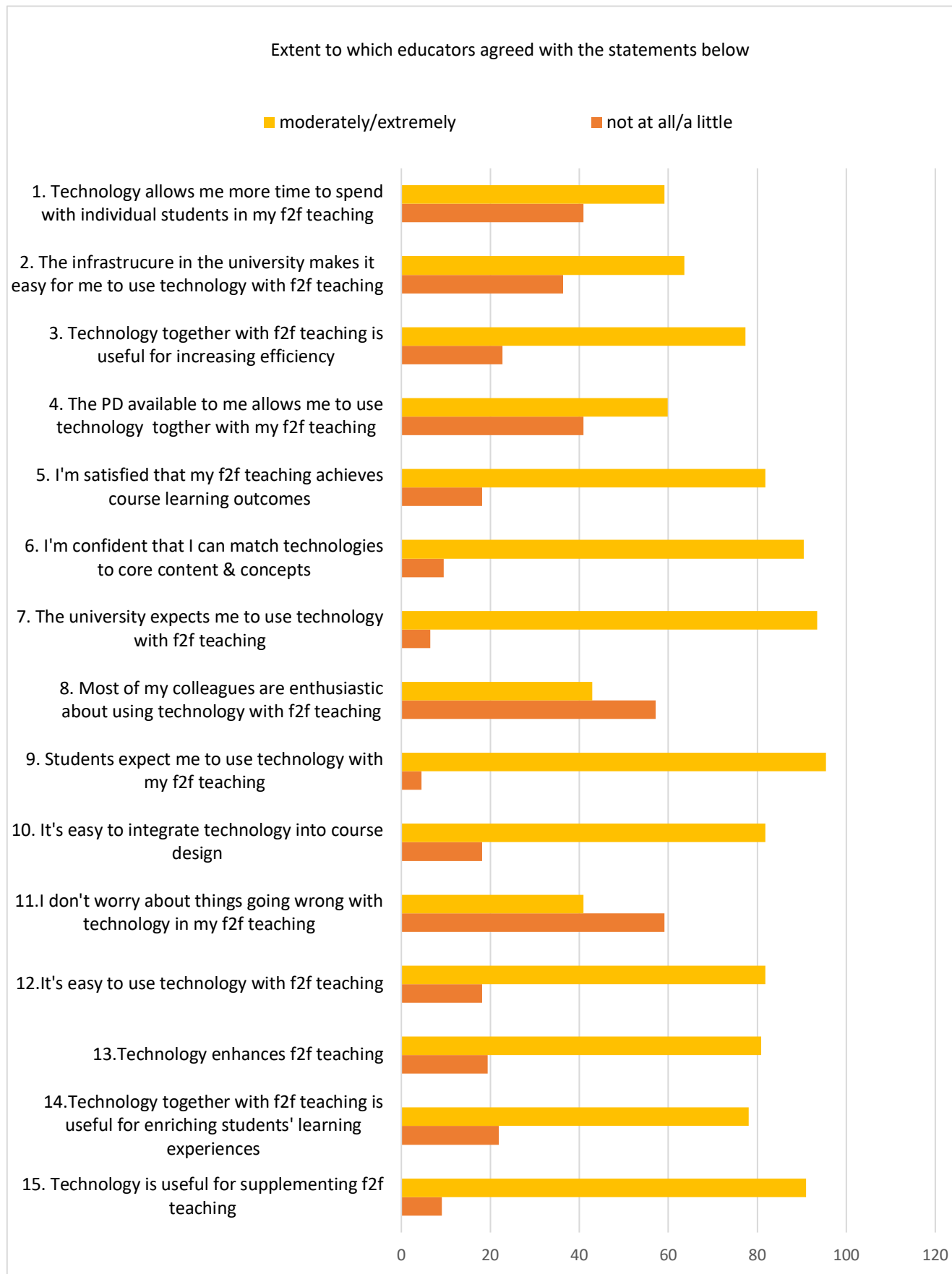
Figure 11: Statements about technology and blended learning and teaching

The data for Figure 11 was collated in response to Question 15. The question format was a Likert scale, comprising 15 items. The number of educators was 97.

Figure 11 illustrates educators' opinions about a number of statements related to the use of technology in their face-to-face teaching. Again, to provide a truer interpretation of the data represented, I grouped the 'moderately' and 'extremely' levels together to represent a relatively high degree of agreement with the 15 statements presented in the question. In the same way, 'a little and 'not at all' were combined to suggest a relatively low agreement with factors that educators found impacted their use of technology in teaching.

The highest percentages of affirmative responses illustrated in Figure 11 were related to expectations placed on educators to use technology in their face-to-face teaching; over 95 educators (98%) strongly agreed that students expected a blended mode of delivery and more than 93 (96%) held the strong belief that the university expected them to use technology in their teaching. The data in Figure 11 also suggested that the majority of educators: 90 (93%) strongly agreed with the statement that technology was useful to supplement their teaching. Further, a high number of 80 educators (97%) also felt strongly that that technology enhanced their face-to-face teaching. Ninety educators (93%) agreed that they were able to match technologies with core content and concepts and 81 (84%) fewer were satisfied that their face-to-face teaching achieved course learning outcomes. Figure 12 also indicated that educators found technology easy to use and integrate technology - 81 (83%) strongly agreed with this. There was less consensus about whether educators worried about things going wrong with technology in their face-to-face teaching; 59 (61%) agreed and 41 (42%) disagreed. Similar results were found in response to statements about PD and its use in face-to-face teaching, whether technology allowed educators to spend more time with individual students in class and whether their colleagues were enthusiastic about using technology in the classroom.

Chapter Summary

The quantitative data generated by the survey in this study was informed by the extant literature around the research questions and themes of the study. These themes are described in Chapter 1, "*Introduction and Background to the Study* "and discussed in detail in Chapter 2, *Literature Review.* Here I have described the quantitative data. This process

is illustrated in different figures and tables, together with a brief verbal description of trends identified. As demonstrated throughout this chapter, I have employed a mixed methods approach which is based on a Sequential Integration strategy. Using this approach, the quantitative data will complement the qualitative data by providing rich descriptions of the patterns and trends discussed and analysed in the following Chapters 5 and 6.

Analysis and Discussion: Qualitative Data

Chapter 5: Educators' Use of Technology

Introduction

Chapter 5 addresses the important theme of educators' use of technology in their face-to-face teaching practice. The theme emerged as a result of my extensive literature review (see Chapter 2) and the results of the quantitative data which was described in the previous chapter. In this chapter, the results of that quantitative data will be integrated with the findings from the qualitative semi-structured interviews with educators and academic developers. The theme will be discussed in detail.

The relationship between educators and the use of technology in their teaching practice is a complex area which is much debated and discussed in the literature. While there is a large body of research that enthusiastically showcases the positive impact of technological tools on learning and teaching outcomes as well as on the academic workplace of educators generally (see Chapter 2), there are also an increasing number of contrasting studies which highlight factors "that mitigate against the extensive use of technology" in education (Selwyn, 2017, p.109). The tensions that exist in the literature are mirrored in the diverse attitudes and challenges that educators face as they struggle to adapt to the blended mode of teaching.

Furthermore, the results of both the qualitative interviews and the quantitative survey in this study indicate that the meaning of what 'blended learning and teaching' is unclear to many educators teaching in this new mode. Many educators were unable to define the terms clearly or explain their feelings about it. The ramifications of this are discussed in the following section and are strongly supported by the literature which covers the myriad and ambiguous definitions of the terms blended learning and teaching.

Educators' attitudes to the blended paradigm

According to the quantitative data described in the previous chapter, most educators agreed that they used technology to match core content and concepts and that the integration of technology with face-to-face teaching was generally useful and increased efficiencies (see Figure 11). However, this data also showed that fewer survey respondents were of the opinion that technology enhanced, as well as supplemented, their face-to-face

teaching, or that it provided them with more time to interact with individual students. These results generally aligned with the qualitative data on this theme. One educator expressed his opinions in this way:

> *I think technology supplements face to face teaching, but I'm not convinced it*
> *actually enhances it. It might if I had more time to use tech more effectively.*
> *And nup, it doesn't give me more time with individual students because I have*
> *to spend more time mucking around with the technology content.*

On the other hand, one clear advocate of the blended model explained in a further interview that,

> *Technology is part of the ecology of my classroom and my work practices. It's*
> *integrated so I don't think about what 'technology' I will be using.*

This latter comment embodies claims from recent studies that blended teaching is evolving into an enhanced classroom (Anderson, Pates & Sumner, 2016) where teaching is teaching, regardless of technology. Nevertheless, the results of the qualitative data did not indicate that this euphemistic view of technology as an integral part of a pedagogical ecology is a common perception amongst educators. There are several reasonable explanations for this. Firstly, for some educators, the use of technology in their classrooms appears to be more about meeting student expectations than their learning needs, even though as Mestan (2019, p.70) claims, neither students nor educators "have a clear understanding of what blended learning means" Secondly, it is reasonable to assume that others, believing that universities expect them to use technology in their face-to-face teaching anyway (also evident in the quantitative data), have more or less embraced the blended model, adopting the phlegmatic attitude of one educator that blended teaching "*is a given… that genie's out of the bottle.*"

The *what, when* and *how* of educators' use of technology

As explored in Chapter 2, *Literature Review,* there is an increasingly rich body of research around which technological tools teachers select to integrate in face-to-face classrooms, as well as why they make the technological choices they do (Henderson & Romeo, 2015; Mestan, 2019; Pates, 2016). Less prevalent, however, is literature which examines *how* technological tools are used in blended teaching - i.e., what educators actually do with them in their daily practice and, in particular, whether they use these tools for organisational or learning and teaching purposes and how they rationalise this decision.

Henderson et al. (2017, p.2) claimed that teachers have become complacent, viewing technology as something one "just gets on with" in the workplace. This view is supported by the quantitative data in the previous chapter which revealed that the majority of educators used technology every day at work for management purpose with almost the same extent number integrating technology into their face-to-face teaching (see Chapter 4, Figure 6). The qualitative data, however, diverged somewhat on the issue of complacency. Although, as discussed above, most educators interviewed also accepted that technology was an integral part of their academic lives, they did not appear to be complacent as Henderson et al. (2017) claimed. On the contrary, many participants displayed emotions such frustration, anxiety, anger and sometimes hostility which highlighted layers of complexity in their attitudes to and use of technological tools. These tensions are the primary focus of both this chapter and Chapter 6 which relates to academic development.

Course management vs teaching & learning tools

The interview responses in the qualitative study, together with the quantitative survey data presented in Chapter 4, revealed a degree of conflation (and indeed confusion) between tools used for course management and those that educators identified for teaching and learning purposes. Such confusion was especially noteworthy with the interviewees in this qualitative survey because educators appeared to be divided both in how they categorised these tools and in how they used them in their face-to-face classrooms. According to current literature, and confirmed by perceptions of academic developers interviewed, there could be several plausible explanations as to why this may be the case. LMS organisational and management tools were identified by interviewees as those for creating and marking assignments and quizzes, checking for plagiarism and entering marks into the grade centres.

According to interviewees, the categories of LMS and Web tools were not mutually exclusive, with the majority of educators integrating tools (e.g., YouTube video clips and PowerPoint) that are not native to the LMS suite into their classes, albeit retaining the LMS as a delivery platform. This was endorsed by a number of open text responses in the quantitative survey (Table 19, Chapter 4), which showed a similarly high uptake of YouTube used primarily for flipped classroom delivery (Loch & Lamborn, 2016; Shelton, 2014). Uses

of YouTube for this and other pedagogical purposes are discussed in Chapter 2, *Literature Review.*

Some educators' views that tools such as quizzes were not intended primarily for learning and teaching was an interesting discovery, particularly considering the numerous studies that praise their pedagogical affordances. For example, a small number of interviewees claimed that they used quizzes more for tracking student participation or to comply with institutional assignment regulations than as a learning tool. Email was mentioned by only one respondent, which diverges from studies that found high usage of these tools (O'Brien, 2015; Torrisi, 2012). It seems that email, in particular, may be such a fundamental part of educators' everyday working practice that it did not warrant special comment. This was reflected in a comment from one HE lecturer who didn't consider email to be a technological tool at all, "*it's so much part of my life it's like breathing.*" No one commented on LMS Announcements, and it would be reasonable to assume that this was also a case of 'business as usual', especially in light of the many comments about the importance of effective communication for both educators and students. This assumption also seems to be reasonable in the light of the quantitative data which showed that Announcements was the most used LMS tool (more than 80 of the sample of 97 educators.

That many educators did not comment on some of the obviously well-used LMS tools could perhaps be partly explained by confusion amongst respondents about what was meant by the term 'technology.' This was illustrated particularly in the quantitative data; in open text responses to the survey question 7 *(how often do you use technology for teaching?),* several educators queried whether the LMS could be defined as a technical tool in itself; as one educator wrote in an open text field, "*If you count Moodle as technology that is ...",* another wondered whether an "*Apple watch is OK to include….although I don't really use it for managing my unit as such.*" while a third participant complained, "*dunno what you mean by technology… could be anything.*" The issue of terminological slippage was not obvious amongst educators in the qualitative interviews, only one of whom asked, "*Does my watch qualify as a tool*?" Possibly these participants were too polite (or perhaps too embarrassed) to pose the question in a face-to-face context.

The apparent failure - or reluctance - by educators to clearly separate learning from organisational tools could attributed to a lack of knowledge about - and perhaps interest

in - their functionality because the technology is imposed on them (Shelton, 2014). Secondly, the various tools educators used to comply with institutional administrative requirements might actually serve a twofold learning and/organisational purpose. The quantitative data described in Chapter 4 provided several examples to support this suggestion: firstly, the Discussions tool was classified as a teaching tool (Table 16), yet studies indicate that educators rely on it heavily for communication and information rather than for active learning (M. Brown, Dehoney, & Millichap, 2015). Secondly, although the most frequently used tools were categorised for teaching purposes, PowerPoint, Echo Centre (lecture recording), Grade Centre and Turnitin (a text matching tool) were considered by some educators to be equally suitable for course organisation and management. For example, in an open text response to question 9 about why educators use technology at work in the quantitative survey (Figure 6, Chapter 4), one educator observed that PowerPoint was useful to reinforce points students might have missed in face-to-face lectures, while another noted that all course PowerPoint lectures *are up [on the LMS) for students who don't turn up. It's all about bums on seats and tracking.*" Notwithstanding this apparent dichotomy, a number of open text responses in the quantitative survey supported the qualitative interview data which indicated that many educators had clear preferences for LMS learning tools, with features that facilitated embedding web links, quizzes used for designing interactive course materials and videos to deliver flipped classroom content. This applied especially, but not exclusively, to those embedded in the LMS, where tools which were described as learning tools were not always used to that end. The theme of impact of the LMS and how it impacts the effectiveness of blended teaching practice in the HE and VET sectors (Godwin-Jones, 2012; G. Kennedy et al., 2011; Palahicky, 2015) are explored in this chapter, particularly in regard to differences in approaches to and the functional use of the LMS Grade Centre tool.

The LMS vs Web tools dilemma

Technological tools used by educators tend to be categorised as those that are embedded into the LMS and those that are external to it. The latter are commonly described as Web 2 tools (Bower, 2015) and include a wide range of social networking sites; web applications or 'apps'; interactive tools and collaborative platforms. Researchers agree that the LMS (and its embedded tools) is the most frequently used form of technology used by university educators in their teaching (see Chapter 2). While educators interviewed here also used the LMS, there was no clear evidence of heavy reliance on it, as is claimed by some

researchers (G. Kennedy et al., 2011). Indeed, many educators were prepared to by-pass the system and implement other Web tools, providing enthusiastic and detailed explanations and examples of these. This pattern was also seen in the quantitative data which showed that 72 out of 94 participants who responded listed 30 non LMS/Web tools (Figure 7, Chapter 4). There is a tension on this point; these high numbers contrast with findings of studies that teachers do not generally embrace digital technologies, tending to use computers more often for e-mail and software programs such as Word, PowerPoint and Excel (O'Brien, 2015) or to upload pre-existing material already prepared by others (Selwyn, Nemorin, & Johnson, 2017).

Comments from educators in both sets of data indicated that a shift to the use of external tools may be explained by a growing sense of disillusionment with the LMS and that educators in trying to classify the LMS as an 'operating' rather than a 'learning' system and found that neither the generic LMS learning/teaching nor the organisational/management tools necessarily met their specific needs. This meant that educators resorted at times to more "mechanical modes of pedagogy" (Hil, 2012, p.101).

One HE educator in the qualitative study held a diverse and more positive view about the learning vs management debate, however, insisting that he had the answer to the frequently asked question of where the *Learning* fits in the *Learning Management System* nomenclature:

> *It's really about learning, because the LMS, it's right in the back end and only the teachers can see that. What the students can see, is all about their learning, so it's all about us managing their learning. If the [LMS] is managed well and if you use multi modal functions on it, it can be, there's just no end to it. It's only limited by your imagination, that's what keeps me doing blended teaching.*

Such passionate, positive responses as the above appeared to be rare, not only in this study but also in current literature. Studies confirm that a trend identified in my interview data of "*looking outside closed systems like learning management systems*" for tools, as one HE lecturer expressed it, is becoming more established across the wider education sector. It seemed reasonable, therefore, that many educators interviewed in this study would search for alternative ways in which to achieve required outcomes (Pullen, 2015) when constrained by a system they described as "*clunky,*" "*inefficient at best*" and "*outdated.*" In

this regard, the LMS can be viewed as both a barrier and enabler to blended teaching practice.

Most popular LMS teaching and learning tools

Use of Lecture Capture tools

An embedded LMS tool which is increasingly promoted in universities for teaching and learning is the recording and subsequent LMS uploading of face-to-face lectures. Studies report high usage of lecture capture tools (Bower, Dalgarno, Kennedy, Lee, & Kenney, 2015; Torrisi, 2012) and the literature regarding the effectiveness of this mode of delivery generally agrees that its benefits outweigh the disadvantages (F. O'Callaghan, D. Neumann, L. Jones, & P. Creed, 2017), particularly as students report high levels of satisfaction with recorded lectures (Witton, 2017). Although educators in this qualitative study approved of the lecture capture (Echo360) tool's capacity to offer equal access opportunities for students unable to physically attend lectures on campus, they did not use it frequently. The quantitative data showed a similar lack of interest in this tool with only 7 out of 97 online survey respondents using it in their teaching. This low usage, I suggest, maybe partly due to the high number of VET respondents where, in a primarily face-to-face teaching environment, this type of tool is probably used infrequently. A reasonable explanation for the low uptake in the qualitative data cohort could be that the number of Echo360 enabled spaces at the dual sector university which was the focus of the survey (see Chapter 3, *Methodology*) was less than 10% of the total teaching spaces. Perhaps inevitably, with Echo360 available in only two rooms across the outer metropolitan campuses where many of the VET departments were located, no educators interviewed from this sector used the tool.

A further noteworthy point of view of educators and academic developers alike was the fact that the initial implementation of Echo360 was based on an 'opt out', rather than 'opt in' system. As this decision had apparently not been well communicated to staff, however, the recording and subsequent automatic LMS upload of lectures was viewed as mandatory. Although this was not the reality, it came as no surprise that educators were annoyed both by a perceived compulsory use of the tool as well as, to an even greater extent, by the unfairness of the policy, "*no-one was given a say… the decision was made at the top.*" In response to a specific question about professional development for LMS tools, an Academic

Developer interviewee described Echo360 as a "*joke,*" adding that one VET educator who "*lectures in an Echo-enabled room, didn't even know about it and was furious".* From the Health Sciences area*,* this teacher was concerned about privacy issues which she felt were significant given the intimate details covered by some of her lectures. Such complaints were not uncommon in relation to this and other LMS-embedded tools, hence staff disillusionment and lack of empowerment regarding blended teaching was palpable. This is consistent with the research around institutional culture which states that organisational climate is crucial to the job satisfaction of educators (Schulz, 2013) and that participation in decision making and good communication in an academic work climate has a significant impact on the professional lives of academics (Uslu, 2017).

Examples such as the one above, however, do not necessarily mean that either this university's professional development or communication processes were at fault. Most ADs remarked that training opportunities were often not well communicated, and several educators cheerfully admitted that they usually ignored emails advertising PD sessions. Sessional teachers in the Trades areas sometimes came from the workplace for one or two lessons and "*don't even log on to the computer.*" Small wonder, then that a busy Nursing lecturer, currently employed in a hospital might ignore a communication that, from its subject line (in this case, 'Echo360 training'), was probably meaningless to her. Discussing the importance of good communication around technology tools, one interviewee who was employed as an Academic Developer "*or whatever the hell I call myself,*" made the wry observation that descriptive terminology such as 'exciting' and 'innovative' often automatically equated to 'more work' in the minds of academics. This mirrored comments from some of the more cynical respondents in this survey, particularly in the HE sector. The impact of such challenges and possible solutions for ADs are discussed in detail in the following chapter on Academic Development.

Whether or not greater participation and commitment from educators could mitigate the many negative attitudes towards university policies and strategies, the "*farcical situation*" with Echo360, as one HE lecturer described it, is an example of a number of tensions that emerged between university strategic decisions around the lack of educator agency. While educators in this study related this to the selection of technical tools, commenting that they had "*absolutely no say*" and were "*not consulted, ever, either before or after new tools*

are introduced," recent studies confirm that this is a much wider issue in both sectors. As institutional budgets are increasingly reduced and policies around curriculum, teaching modes and student cohorts progressively centralised, "the space for professional autonomy is ever more constrained" (P. Bennett & Smith, 2018, p.13). Lack of teacher agency relates therefore not only to educators' use of technology per se, but also to the way in which blended teaching is supported and managed by universities. The themes of management and the issues around lack of teacher agency was prevalent throughout this study and are discussed in Chapter 2.

Torrisi (2012, p.160), discussing the use of lecture capture, found that the primary purpose of the tool was administrative, with academics reporting that they used lecture recording for 'access to content,' 'efficiency', and 'communication' rather than for learning outcomes such as 'understanding concepts,' 'sharing ideas' and 'practising skills.' Although her research did not examine *how* lecture recordings were used, it is reasonable to assume that, as in this study, academics were probably not *proactive* users of lecture capture tools and that most merely uploaded lectures into the LMS for students to access or not, as they wished. Echoing common findings that the main aim of lecture capture tools was administrative, one interviewee commented that she hadn't bothered to either opt-in or opt-out as she didn't find it much use in her teaching anyway. Comments that Echo360 was seen as *"an admin device which enables me to get things out more easily to students"* and *"It just gives me [sic] another option to reach them"* reflect an increasing number of criticisms of the pedagogical value in implementing lecture capture tools, with research calling for universities to address educators' concerns about the value of this mode of lecture delivery to student learning.

Although academics, for the most part, were not enthusiastic about the learning affordance of lecture captures, one VET teacher told me he had heard that a "*bells and whistles Echo tool*" was to be integrated into a new LMS (Canvas) to be introduced by the university the following year. An early adopter, *"I used to be an eLearning champion in the good old days"*, this Trades teacher had already completed a MOOC on Canvas and was enthusiastic about exploring the potential of this new tool and perhaps introducing it into *"so-far unchartered waters."* Not surprisingly, though, he wondered whether or not it would be fully integrated into the new system and, echoing the teacher agency theme discussed above, who would

be consulted in this decision, "*if they [i.e., management] will talk to someone like me-. who'd know about what it can do"*. Although the educator was philosophical about this, he obviously felt it was justifiable (and indeed necessary) for educators to be able to say no to a new tool or software (Cuban & Jandrić, 2015, p.428). Both VET and HE educators were aware that implementing a new tool just because it was new was bad blended teaching practice: "*Quitch is apparently the latest fad,*" and "*they want to keep up with the latest and greatest from other uni*s." These views surfaced frequently throughout the study and mirrored research claims that 'educational gizmos' are usually initially adopted because of their newness, (Losh, 2014), despite the fact that students need models that have been trialled, rather than fads (Fifolt, 2015). The quantitative data in this study suggests that such concerns about management and lack of educator voice may be an issue university wide; Figure 11 (Chapter 4), for example, showed that in relation to factors enabling the integration of technology into teaching generally, support from management ranked higher in importance (i.e., very important) for educators than almost any other factor (apart from time to upskill). The quantitative data also highlighted that educators felt strongly about high management expectations on them to use technology in the classroom (Figure 11). This was echoed in a number of comments made about management in the qualitative interviews in relation to academic development in Chapter 6. It is also illustrated by educators' observations about the use of the Echo 360 tool as discussed in the following paragraphs.

Most participants who did use Echo360 regularly showed a lack of interest in any advanced features of the tool such as editing, tracking or adding videos - what I have termed '*proactive use.'* There were, however, two interesting exceptions that were highlighted in the interviewee data. The first was a convenor in the Design field who felt that it had the potential to enhance learning "*for students who bother to watch it*" and thus to improve her teaching practice. This educator explained how she used Echo360 to follow up student participation:

> *Because I've already got the lecture slides…usually if they come to the lecture if they go back into the recording, it's to a specific area and I can see that part of it and see where the hits are, the red spots… It's always at the start, the end and a little bit in the middle. But you can see that there might be a point where its' starting to pick up and that's when I look at it and go, OK. Where was I up to? Ah. Ok. I might have to rethink how I teach that.*

Interviewees' responses regarding perceptions of the overall *concept* (as opposed to *use*) of lecture recordings were mixed. One educator was relieved that the upload was automatic and that the lectures could be accessed and downloaded by students:

> *In the old days, we had to print multiple copies for students who missed class. These days, the responsibility lies with them. The lecture's up there and they can choose the time and place to watch it. Personalised learning, they call it now.*

Another sessional lecturer, by contrast, had little faith in the personalised learning philosophy espoused by much of the literature (Dona et al., 2017; Wong, 2013), *"I upload my lectures every week and no one watches them. Students who choose not to come to face-to-face lectures are not likely to bother with them on Blackboard."* This comment was consistent with the studies cited above, as well as with research carried out by Bond and Grussendorf (2013) who found that educators placed little value on lecture capture tools because students might not attend face-to-face lectures if they could watch them online. One educator in response to a question as to whether she thought lecture capture enhanced learning was quite adamant: *"No. I don't think it does. My lectures are all recorded through Echo. I don't know, four or five students might watch them out of about 80 odd."* This view is consistent with studies that have shown little positive impact on student learning outcomes (Bos, Groeneveld, Van Bruggen, & Brand-Gruwel, 2016; Marchand et al., 2014; Witton, 2017) and perhaps partly explains the degree of apathy shown by several educators who hadn't attempted to track student use of the tool. One told me:

> *Well, it's [Echo360] in all the rooms. It seems to be what the organisation as a whole wants. I don't really care whether they turn up or don't turn up because it's the quality of what they deliver at the end that's important.*

There was, however, a novel attempt to resolve this issue which was reported with some amusement by an AD. In this instance, an educator in the HE sector was frustrated because by the third face-to-face lecture, where only about 15 out of 200 people attended. According to the AD:

> *The [educator] started doing this thing where with the video recording lectures, which were embedded [in Blackboard], he would purposely leave certain things out and speak to the video recording, saying you'll only find this out if you come to the lecture. So he would walk away. He had a whole thing, you know, just to try and get more people to come.*

When I inquired about the outcome, the AD replied that he hadn't followed it up, but:

> *I thought it was hilarious that he'd gone to that extreme. He was frustrated and just couldn't work through the situation really or the cultural differences or expectations, I suppose, that students have now.*

This kind of practice was not uncommon amongst educators in the present study. As related to further discussions in Chapter 6 around academic development, the participant's anecdote exemplifies 'subversive compliance' which is described in relation to the Academic Development Compliance Typology.

As mentioned previously, several participants felt that despite the problem with "*slackers who just can't be bothered turning up,*" issues with non-attendance were mitigated by the reality that lecture recordings were useful for individual students who could not attend lectures on campus. One educator described these as "*genuine cases*" which included increasing flexibility for work commitments (Dona et al., 2017), as well as students with learning disabilities, medical conditions or illness (Williams, 2006; Williams & Fardon, 2007). Such 'genuine cases' were objects of concern to other educators who had less positive perspectives about the impact of work-life balance on attendance in physical lectures. As one convenor explained:

> *They're [students are] time- poor like we are. They organise their timetables around their jobs these days, not the other way around as in the past and that's a huge shift. We notice that at information evenings when they ask how many hours on campus. Nothing about learning, mind you. It's a good incentive for us to put some content online, regardless of the pedagogy. I used to invite academic advisors to these evenings. They scared the bejesus out of the students by telling them they need to commit to 12.5 hours per subject per week. That's times 4, so 50 hours. In their bloody dreams! That's more than what the academics do. No wonder we scare them off.*

Studies a decade ago were already reporting on academics' concerns about the impact of online lecture capture technologies on 'internal' as opposed to 'external' students (Woo et al., 2008). It appears that, as the educator above observed, the delineation (or 'shift') between on-campus and distance student cohorts might becoming increasingly blurred. This presumably raises questions around educators and management perceptions of the advantages of online lectures, how the lecture capture mode is used and why. In response

to the latter, one lecturer described how she found herself "*in a bind*" after having to respond to students not accessing online lectures.

> *I do understand the vast majority of students are juggling a lot of things. I'm comfortable that they don't attend lectures. To a certain extent, I'm comfortable that they don't attend tutes. But the university never looks at this technology [i.e., Echo360) as just another delivery mechanism. To them, I think that, like most organisations, they see technology as the way of the future. They see it as new and different and exciting; it opens up possibilities. They don't ever talk about it in terms of, "You know, it's just another delivery mechanism.*

An educator teaching a high number of NESB [Non-English-Speaking Background] students emphasised the value of online lectures for this cohort who "*can go back over the material as often as they like to make sure they understand the language.*" The assumption that NESB students should benefit from online lectures is supported in the literature with studies revealing that 25% of these students have difficulties understanding lecture content (Mulligan & Kirkpatrick, 2000), and that they benefit from the opportunity to revise concepts, language and even colloquialisms (Gosper et al., 2008; G. P. Shaw & Molnar, 2011). Possibly the high rate of mostly Chinese NESB students accessing online lectures in the studies cited above (contrasting with reportedly low rates of local students), could be attributed to the work ethic of NESB students. However, the stereotypical perception of the passive, rote- learning Chinese student claimed in some of the studies above has recently been challenged, with research suggesting that the learning behaviours and beliefs of these students frequently align closely with their Western counterparts once they participate in authentic activities (Wu, 2015), away from their own higher education environments (Heng, 2018).

According to an Academic Developer interviewed, the traditional view described above of international students' learning characteristics still prevails, at least to some extent, over two decades later. During a professional development session on creating LMS quizzes, for example, he found it interesting that several teachers of international students were sceptical about online teaching at all. "*They kept insisting that internationals prefer printed materials that they can memorise*" he stated, "*because that's what they're apparently used to at home.*" That these attitudes are still evident perhaps suggests that the academic development offered by universities often does not incorporate themes beyond the use of

technology. The need for educator support in all areas of teaching and learning and how this impacts blended teaching practice is discussed in Chapter 6 in relation to academic development.

In contrast to the attitudes of educators as reported by the AD above, it is interesting that the English teacher interviewed was one of only two educators who referred to any real constructivist teaching and learning outcomes in regard to online lecture recordings. Consistent with the research cited, this was to be expected, given that the outcomes were related to language acquisition. Also interesting was the fact that no Echo360 users who discussed the tool agreed with pedagogical claims about its facility to encourage active, deeper learning and more positive learning behaviours through online lectures. One educator compared Echo360 to:

> *putting on a CD and listening to it at home by yourself, versus going to a gig where there's 500 other people there and you're all dancing together, one's a collective thing, you can actually tap into that energy, and one you're alienated, and you're isolated.*

The potential effects of isolation and lack of social cues in online lectures, referred to several times in similar interviewees' quotations as the above, is debated in a number of studies both supporting and defending the ubiquitous face-to-face lecture (Jones & Sharma, 2019; Thai, De Wever & Valcke, 2017), as well as in papers applauding the convergence of the two modes of lecture deliveries. The tensions between the literature and this study regarding these issues are covered in Chapter 5.

Apart from one HE interviewee who identified enhanced lecture quality as a driver, a more common view was that the university had ulterior motives for introducing online lectures with educators citing "*cutting costs,*" and "*making efficient use of resources*" as perceived primary motivators for uploading lectures to the LMS. There was an interesting opinion from one HE educator as to who benefited most from a recent restructure:

> *Well, we were just told that they were moving from six to three faculties because they wanted to do away with the silo effect. So of course, we all sat at the back and sniggered at that. What it does, of course, is that having done that, then they put in more and more executive levels, so there are all these people on 150 or 200 grand, plus increases, and the rest of us get nothing….and they cut teaching staff down.*

Another educator in a HE Business course offered his view in this way:

> *No, well if you put them online, they don't turn up to face-to-face classes. If you were to do a survey of all the classes, and this is what the university does, it does an audit, it goes around and says well how many are in this class, because they're just looking for more infrastructure sort of things, but they'll go around and say, "Okay there's supposed to be 22 in this class, there's 6. We've given you a big room for this." They're looking for more the financial and the cost efficiency side of things, or "You've requested a large lecture theatre, why?" "Well technically I've got 194 enrolled," "Yeah but only 50 are turning up, so why are we putting you in the big lecture theatre.*

Not surprisingly, existing research agrees that student learning is more effective if educators deliberately incorporate lecture captures into their courses (Fanguy, Costley, Baldwin, Lange, & Wang (2019). Purposeful use, or 'value-added' lecture capture content (Witton, 2017) however, as revealed in the previous educator comments, was not evident in this study. Notably, there were several comments illustrating this kind of cursory use of other teaching tools in the quantitative survey (e.g., quizzes); tensions emerged between these text responses and the rest of the data which did not indicate a lack of interest in the alignment of teaching and technology. On the contrary, the majority of educators used technology to reinforce core concepts and to encourage more autonomous learning, and an even higher number of educators used technology tools to achieve course learning outcomes - all of these aims are presumably achievable with thoughtful use of lecture capture tools (Witton, 2017)

Educators' use of the PowerPoint tool

Although not embedded in the LMS, PowerPoint has been identified in the research as one of the technological tools used most frequently by academics in their teaching (Fangu et al, 2019; Shelton, 2014). This was confirmed by HE educators in the qualitative interviews, with most educators reporting the use of this tool at least on a weekly basis. The use of PowerPoint as a means of delivering content via the LMS platform is an interesting example of the tension that exists between LMS learning/teaching and organisational/management tools. Aligning with studies that associate PowerPoint with didactic presentation (Bower et al., 2009), most participants described it in similar terms as with Lecture Capture - that it was an efficient supplementary medium for delivery of weekly lecture slides, rather than as a tool to enhance teaching or improve learning. Although all HE educators mentioned

PowerPoint, only one referred to it in response to a question as to whether they felt technology had any pedagogical benefits for face-to-face lectures:

> *Yeah. Well, there's always technology. With lectures there's always technology because you can't just talk at them [the students]. You've got to have a visual component. You know, I use PowerPoint. It's important to have that just to signpost your students. You know, the main sort of ideas that you're working with. And also, just adding some colour. Like I use pictures and stuff as well, just having that visual stimuli is important.*

This single view about the perceived pedagogical advantages of PowerPoint appeared to be a relatively superficial explanation of the educator's use of the tool. However, James, Burke, and Hutchins (2006) recommended the use of relevant images on PowerPoint screens to assist with visual literacy development and to increase classroom participation. T. Mitchell (2011, p.182) also made the point that "for adventurous teachers willing to experiment with a plethora of visual media and activities of this digital age, come great opportunities for student engagement."

In the decade since James et als.' (2006) research on the 'power or pointlessness' of PowerPoint as a lecture tool, there has been a steady increase in criticisms of PowerPoint leading some researchers to the conclusion that the tool may have no effect on student's cognitive learning (Baker, Goodboy, Bowman, & Wright, 2018). Further, T. Mitchell (2011, pp 1-7) in a PhD thesis on the influence of PowerPoint lectures in HE topic reviewed current literature that "suggests the ubiquitous and injudicious use of PPT-type presentations, in particular to deliver core content in higher education classes, may have a deleterious effect on student learning" if used as an instructional tool where PowerPoint notes are used as an "information dump." This point parallels comments from an AD who observed that educators (presumably such as the one quoted above) have had little, if any, training in how to engage in best practice teaching with PowerPoint. It is logical then that, as with other technical tools such as Echo360 and Turnitin, if educators use PowerPoint in "a routine, passive and predictable manner" (Gabriel, 2008, p.256), active learning will not be achieved. As one HE educator in this study put it, "*The PowerPoint should just be an adjunct to the lecture, shouldn't it... not the lecture itself. I have to keep reminding myself about that.*"

Educators' use of the Turnitin tool

A further example of educators' use of a designated teaching and learning tool for organisational and management purposes is the software Turnitin. Increasingly implemented across universities world-wide (Bruton & Childers, 2016; Hoge, 2013), it was mentioned as a course tool by all HE interviewees in this qualitative study. In response to survey question 10 (in regard to LMS technical tools that were most used by educators in their teaching), Turnitin ranked the highest (60 out of 97 users) after Announcements, Discussion Board, Assignments and Quizzes (Table 17, Chapter 4). Despite its original purpose as a text-matching rather than a plagiarism tool, educators all used the text matches produced by the 'originality report' of Turnitin assignments to detect plagiarism. To this end, they generally agreed that although the tool appeared to be used in a punitive way, this was justifiable in light of the major threat that increasingly high levels of plagiarism pose to academia (Ayon, 2017). These educators generally felt that Turnitin acted as a deterrent to plagiarism, a view that is more endorsed by the literature (E. Buckley & Cowap, 2013; Heckler, Rice, & Hobson Bryan, 2013) than disputed (Walker, 2010; Youmans, 2011).

Also aligning with the literature was the common belief amongst educators that students were aware of the function of Turnitin and accepted it (Bailey & Challen, 2014). In regard to the practice of plagiarism, tensions emerged both between the educators themselves and the literature. For example, one lecturer claimed that some of her students felt threatened by the tool, and that she shared their lack of enthusiasm about the level of scrutiny it imposed. One reason for this was her opinion that students did not necessarily understand the concept of plagiarism. *"They don't deliberately cheat…especially undergrads… they don't know what paraphrasing means. Some can't even tell you what a synonym is."* This view is supported by studies which suggest that many academics regard plagiarism as unintentional, leaving students in a "hollow simulacrum of research" (Bailey & Challen, 2014, p.38) so they penalise only what they consider to be extreme cases of deliberate plagiarism (Bruton & Childers, 2016). Several lecturers in this study disagreed, believing that in most cases students knew exactly what their intention was when they plagiarised. One educator gave an example of a student who *"not only plagiarised a lump of text, but didn't even bother changing the font,"* while another insisted that *"there's a godamn home industry around finding creative ways to defeat it [Turnitin]."* Warn (2006)

agreed that students regularly worked out ways to cheat the Turnitin software and hence became 'better cheats', while Bailey and Challen (2014) found no literature to support this allegation, citing studies which disputed it altogether (A. Hunter, 2012; Stappenbelt & Rowles, 2009; Wright, Owens, & Donald, 2008).

While as with other technological tools there appears to be little research into actual classroom practice with Turnitin, researchers generally acknowledge that the tool was originally designed for teaching and learning - to help develop and reinforce students' awareness of the concept of plagiarism and appropriate academic referencing practices (Orlando, Hanham, & Ullman, 2018; Stappenbelt & Rowles, 2009). Nevertheless, this was not a priority amongst interviewees here; only two HE lecturers commented on the potential learning and teaching benefits of Turnitin, and neither of them had actually used the tool to this end. When the educator quoted above (in regard to unintentional plagiarism), was asked whether she had ever used Turnitin as a teaching resource, she replied that she didn't have time to teach academic skills which she felt should be covered in secondary school. She qualified this, however, by wondering whether it was perhaps *"hopefully at least touched on in tutes [tutorials]."*

An Academic Developer, expressing concern about the lack of time dedicated to adequate PD for technological tools, understood what he viewed as educators' misuse of Turnitin, stating that most had "*no idea*" about the pedagogical functionality of the tool. According to the AD, even the university's online support resources labelled Turnitin a plagiarism tool, and the PD offered typically consisted of *"help sheets and workshops about how to set up Turnitin assignments, and how to interpret the originality report [presumably to evaluate grades]. Zilch about academic literacy."* His complaints about an over-emphasis on *how* rather than *why* LMS technical tools such as Turnitin should be implemented is supported by the literature indicating that this is a common trend across universities (K. Reid & Kleinhenz, 2015).

A Google search for Turnitin on the websites of the eleven Australian universities included in the sample for the data in Chapter 4, confirmed research by K. Reid and Kleinhenz (2015), as did as the comments provided above. The search results, represented in Table 20 below, confirm a common use of Turnitin as a plagiarism, rather than a teaching tool.

No. of universities	Term(s) used to describe Turnitin
5	plagiarism
2	plagiarism & academic integrity
2	plagiarism & collusion
1	plagiarism & academic dishonesty
1	academic integrity & does not detect plagiarism

Table 20: Australian universities' use of Turnitin

These descriptions raise the thought-provoking question of what universities value in technological tools such as Turnitin. Firstly, it would be interesting to know who is responsible for writing the 'spiel' for such content on university websites, and if it is Marketing departments, where and from whom the relevant information is sourced. As an Academic developer observed, "it [Turnitin]'s a stick approach and encourages a climate of fear." While this remark presumably referred to students, it could perhaps also apply to educators whose primary role with Turnitin appears to be to prevent plagiarism and therefore comply with institutional academic integrity policies. Such pejorative rhetoric as 'academic dishonesty' and 'collusion' may undermine teaching objectives, and it is notable that only one university included in this study made it clear that Turnitin was principally about academic integrity and not about detecting plagiarism. On this point the literature is divided: Ferguson et al. (2007, p.191), for example, claimed that "the terminology used in discussing research behaviours has changed as the focus of interested parties has shifted from defining, detecting and punishing undesirable behaviours to promoting desirable behaviours." Such a change contrasts with research by Löfström and Kupila (2013, p.231), who indeed define and describe plagiarism, dividing it into "intentional, unintentional and contextual" categories. The trend amongst educators to describe, analyse and, most importantly, to detect plagiarism was clear in this study; apart from a few exceptions, Turnitin was not seen as a tool to support students' learning by educating them about the practice of plagiarism.

As mentioned in regard to Echo360 previously, the implications of such an approach to technological tools on effective blended teaching practice is discussed in detail Chapter 6. In the case of Turnitin, several educators felt that lack of university support in regard to time and other training resources for effective PD impacted negatively not only on them, but also on students who prioritised not being detected for plagiarism over improving their academic writing (Orlando et al., 2018, p.49). Most educators in this study did likewise, using Turnitin reactively (Bruton & Childers, 2016) and/or as a labour saving device (Purdy, 2009).

A final interesting point was that no VET educators who were interviewed used Turnitin. All but one had never heard of the tool, while the educator in the Business area who was aware of it had never used it. Explaining that VET assessments were not usually as "*text heavy as Higher Ed,*" she stated that if there was a need to check for plagiarism, "*I just copy and paste the text into Google and check it that way*." Several VET educators mentioned the issue of cheating, with one insisting "*bloody hell they cheat if they can get away with it.*" While not referring to plagiarism per se, another educator in the Trades area presented an atypical viewpoint, claiming that *"Cheating can be just another way of learning. Learning is learning."* How educators in this subject reportedly embraced cheating as a 'teaching method' to achieve learning outcomes is discussed in the following section on Quizzes.

Educator's Use of the Grade Centre tool

Grade Centre was reported as the most frequently used tool identified by educators, although they made it clear that they did not see it as a teaching tool, but rather as what Hil (2012, p.101) described as one of "the mechanical tools linked to particular aims and objectives," i.e., for recording grades and perhaps student attendance. This view was supported by the quantitative data which showed that only 14 out of 97 survey participants used Grade Centre for teaching (Figure 8, Chapter 4). How or why this minority used Grade Centre for teaching purposes was not stated. As to be expected, given the degree of scepticism expressed in this study towards the LMS in general, the Grade Centre received mixed reviews even in its organisational capacity. One HE lecturer dealing with large numbers of students praised its efficiencies, "*I still have nightmares about those Excel*

spreadsheets with 150 grades. Blackboard handles it all automatically. Magic." Another convenor explained that it saved time with moderation when she needed to ensure consistency of marking exams: "*You know, I've got all these tutors. If Grade Centre wasn't there, I'd have to get everyone's physical paper that they've marked, tabulate it all myself. Get averages. Grade Centre gives me all that.*"

Other educators were not so complimentary, with a sessional tutor complaining that the Grade Centre columns "*do my head in*" because "*you're just in this constant loop of all these weird columns and you can't delete them because they're apparently connected to obsolete assignments, so they just accrue and multiply and it's really annoying!*" It is possible that such remarks about Grade Centre could be attributed to a lack of skills in managing the tool despite many LMS-related professional development sessions offered. Considering the ubiquitous complaints across both the HE and VET sectors about being time-poor, it seems likely that educators did not readily avail themselves of professional development opportunities, except when it was compulsory. In fact, one educator told me that her convenor had never even looked at Grade Centre, let alone completed any training in its functionality "*He's never even logged in. Not once. He delegates the entering of grades to us.*" Interestingly, according to an AD, such total lack of engagement of management with the LMS was also not uncommon although "*This is not acknowledged as a truth.*" Rather, she complained, "*management prefers to live in a state of denial, in the belief that "everyone does the right thing*". This aligns with research that found that, although tolerance of the uncertainty amongst academics trying to balance current learning technologies is imperative, from university managers it is "in increasingly short supply in an era of attention to quality assurance and control" (Coates, James, & Baldwin, 2005, p.25). On a more positive note, some recent studies describe institutional acknowledgement of the uncertainty that accompanies the new ways of working with LMS-based teaching, reputing on what educators perceive as satisfactory levels of trust as well as teacher agency or "*buy in*" at the management level (Keesing-Styles, Nash, & Ayres, 2013; Martins & Nunes, 2016; Stoddart, 2015).

Perceptions of and use of the Grade Centre tool, which in this study differed markedly between VET and HE educators, highlighted a number of interesting tensions that reflect the challenges faced by dual sector universities struggling to manage two disparate cultures

regarding sector-specific national guidelines and policies, differing funding, and different legislation (Fowler, 2017). Further, such factors as tripartite agreements in the VET sector, differences between the competency-based focus of VET and the theoretical orientation of the university, (Heirdsfield, Walker, & Walsh, 2005) need to be carefully considered so that both systems maintain sufficient dynamism and flexibility to be able to respond and adapt to constantly changing pedagogical conditions (Zholdasbekova, Nurzhanbayeva, Karatayev, Akhmet, & Anarmetov, 2016).

As was the case in the HE sector, all VET interviewees reported using Grade Centre on a frequent basis, but there the similarities appeared to end. As illustrated in the previous paragraphs, despite concern expressed by HE academics about time and increased administrative loads, most were positive about the overall functionality of Grade Centre. This was not so often the case in the VET sector, although I should qualify that most of the comments about Grade Centre in this study were restricted to the Trades areas and not the VET sector generally (e.g., Health Sciences, Business or Technology). One Plumbing teacher apologised for his negativity, explaining that it was "*because of the vicious circle of enrolment, compliance and reporting which the LMS just doesn't do.*" Expanding on this point, a Carpentry teacher expressed concern about over-reliance on what he also regarded as an inefficient administrative tool for the department's requirements:

> *Our biggest issue is not the interface with the students….it's on the teacher's side, or convenor, or instructor, it's the Grade Centre. Grade Centre drives our teaching, it drives our systems and solutions, it drives the results, it drives us to distraction.*

Even more seriously, there was a general consensus that the Blackboard reporting system in Grade Centre did not comply with the Australian Quality Training Framework (AQTF) standards, and this had significant consequences. One convenor expressed a considerable level of frustration:

> *So … because of the Grade Centre…we failed the audit. And we still do. It's the only section we fail, but we've got the dichotomy that our university still wants printed [assessment] reports. They did the audit electronically and they said "we can see the problem, you can click on a student, and it'll only report on that student, but if you go and print it there's no identifier in the printed material to say that's where I got it.*

Despite research indicating that some VET teachers believed that tools such as Grade Centre supported their teaching practice by helping with administrative tasks (O'Brien & Maor, 2013), this cohort of HE educators revealed a reliance on the LMS that did not appear to be the norm in the VET sector. Notably, interview responses indicated that a number of these educators employed tools other than Grade Centre for organisational and management purposes, claiming that generic LMS tools did not meet their specific needs - particularly in relation to compliance and reporting issues - so they found creative solutions or "*work-arounds*." For example, one convenor in the Trades area had "*coerced a tech-savvy-guru colleague*" to create a separate, stand-alone database, complete with students' photos, to record attendances. *"We don't report on absence; we report on attendance. So every week, on a Monday, a report gets emailed to the employer if his student turned up, when he turned up, and for how long."* This process subsequently resulted in printed reports for employers which provided official confirmation that apprentices were physically on campus. The LMS Grade Centre did not provide the means to track student attendance in this way, nor did it offer the functionality to integrate the customised database, even if the 'tradie' employers wanted to access it which, as non-university entities, they could not.

The tendency to innovate with technology implied that VET educators perceived themselves to be less 'institutionalised' than Higher Education educators in the sense that they felt less restricted by university rules, regulations and policies and therefore external to mainstream practices. One VET educator expressed his views on why this may be the case:

> *Most of the university doesn't have a tripartite education, we've got an apprentice, we've got the institution, we've got the employer. So because we're a different animal, then we should probably be treated a little differently, have different systems in place that actually work for our employees and our apprentices, rather than trying to adapt to just one LMS to fit the whole university.*

The tendency of VET teachers to be more willing to search for and implement innovative external solutions to tools such as Grade Centre, even if they were not "*tech guru[s]*," was not so evident amongst the HE participants interviewed in this study. However, an AD interviewee believed that innovative, lateral thinking in regard to technological tools

probably did occur amongst educators in a number of HE faculties, particularly with projects that have external funding.

It was clear that the VET innovators were driven by practical considerations in that they were forced to find solutions to the organisational and management limitations of Grade Centre. Although some VET educators, as with their HE counterparts, 'ticked the box' and fulfilled all mandatory requirements when using Grade Centre, the (often self-proclaimed) innovators tended not only to cheerfully make their own rules but also to find a degree of satisfaction in "*screwing the system,*" expressed in this way by a convenor: *"I don't use the learning management system as they (i.e. management) think I do. I manage the learning management system."* The sense of a less 'institutionalised 'animal' which I gained from this group of educators seemed reasonable in this context.

A further interesting observation was that despite their pragmatic approach to the use of tools such as Grade Centre, many VET interviewees displayed a degree of reflection and knowledge of pedagogy that contradicted studies which link a lack of integration of technology with low technical and pedagogical skills (Mumcu, 2010; O'Brien, 2015) and minimal scholarly vocational practices (Everingham, McLean, Mancini, Mitton, & Williams, 2018). Many responses to the question "*How would you describe and define blended learning*?" displayed thoughtful and insightful attitudes to technology integration which contrasted with the more cynical and negative definitions from some academics in the Higher Education sector. Confirmed by studies such as those by Bliuc, Casey, Bachfischer, Goodyear, and Ellis (2012) and O'Brien (2015), most VET educators interviewed recognised potential benefits for blended learning in vocational education despite their complaints about outdated and clunky LMS tools. Their positivity appeared to be mitigated by concerns that they were unaware of alternative tools available which could best add value to teaching the necessary skills in their courses.

Educators' use of LMS quiz tools

Designed, according to the literature, primarily for recognition and recall of facts, concepts or procedures (McNeill, Gosper, & Xu, 2012), both HE and VET educators commonly used quizzes in their courses, in most cases as a compulsory requirement of the curriculum. Reports on the high uptake and use of LMS quizzes was reflected in the quantitative data

of Chapter 4 (Table 17), with quizzes found to be the fourth most used LMS tool by 61 from 97 respondents). This was further endorsed by educators' apparent enthusiasm for non-LMS 'quiz creation tools' in face-to-face teaching; this was the second most popular category to apps - some of which probably were also quiz tools (Table 17, Chapter 4). Nevertheless, while the increasing use of quizzes is highlighted in other studies (Majid, Ridwan, Fauzi, & Hikmawan, 2019; McNeill et al. 2012; O'Brien, 2015), the amount of research that focuses on educators' actual use of and attitudes towards these tools is surprisingly scant. As with other areas of technology in education, the majority of studies focus on students' perceptions of online quizzes (Cerezo, Sánchez-Santillán, Paule-Ruiz, & Núñez, 2016; Lust, Elen, & Clarebout, 2013; Wakefield, Knezek, & de Piñeres, 2016).

As with the other LMS tools mentioned previously, there was a debate amongst HE interviewees in particular about the pedagogical benefits of quizzes versus their integration into courses for tracking participation or merely as a means of "*tick [sic] the box ... so it qualifies as an assignment*" or as a 'hurdle,' as described in an open text response in the quantitative survey, "*I just chuck quizzes up on Moodle as a hurdle.*" In regard to perceptions of LMS quizzes, educators revealed several unexpected similarities between the VET and HE sectors. Firstly, HE educators generally felt that quizzes were better used for recall of facts, rather than for testing theoretical concepts. Although neither outcome was considered to be particularly effective from a learning point of view, several educators believed that weekly LMS quizzes provided students with the incentive to physically attend lectures. One HE course convenor explained his use of them in this way:

> *It's extrinsic motivation. I don't test deep understanding, but I test basic lecture content. It's a way, particularly for first years, where you say, OK, we're going to test you on some factual stuff. You know? And you make sure you get people rocking up to lectures as a result.*

From the VET sector, a Business course lecturer held a similar view, stating that she hypothetically used weekly quizzes to test recall of facts, but that "*this means they have to at least look at the lectures.*" Angus and Watson (2009) lent qualified support to such observations by suggesting that it was the *exposure* to the LMS quizzes (i.e., that they were useful to keep students on track throughout the course) which led to improved student learning rather than the *content* of the quizzes per se. The HE convenor above who referred to extrinsic motivation made precisely this point by claiming that "*The quiz questions are*

really basic. They [students] could probably answer them without coming to the lectures, but they don't know that. So they come."

That educators acknowledged, and actually accepted a lack of learning outcomes from integrating quizzes (apparently feeling that engagement was sufficient for their intentions), was unexpected, especially given the high rate of usage. It was also surprising to note that there was often only fleeting attention given to preparing questions; one educator, admitted that his quiz items were in most cases "*something basic, quick and dirty I guess,*" even though he was fully aware that quizzes were only effective if items were well designed. An AD claimed that this attitude was evident amongst some academics in workshops, and that it was "*always about time*" - that is, that question design was too onerous - "*they don't think they're [sic] worth too much effort.*" One ESL teacher in the VET sector was a lone voice of dissent here. Considering the value-add of well-constructed quiz items for language acquisition because "*the activities even out the playing field,*" she stated:

> *Making some of the quizzes.. okay, I've got them, they're in my bank now, and I can pull them out whenever I want, but the actual making of them took a long time. And then I'd go back and edit them to make sure they were giving me the data and the correct difficulty level for the classes. But I'd say that making like, say, grammar practice, it might take the students 20 to 25 minutes to do it in class, but it probably took me closer to six hours to make and then edit and then re-edit.*

The effort expended by this educator was echoed in a study by (Picciano, Seaman, & Allen, 2010) which found that over 85% of HE faculty staff reported more effort in developing online course materials than face-to-face resources. Slightly less striking as Picciano et al. (2010, p. 26) put it, albeit also significant was that over 60% of educators believed it took more effort to teach online than face-to-face, especially when teaching was not valued a highly in the institution as research.

Echoed by similar comments in this chapter, the quantitative data in Chapter 4 (Figure 9) confirmed interview findings that the majority of educators considered time to upskill as the most important factor impacting technology in the classroom. This ubiquitous theme among interviewees may explain educators' apparent lack of pedagogical rigour in their implementation of quizzes. Strongly supported by the literature, it seems clear that the

issue of being 'time poor' is considered to be one of the most significant impediments to successful blended teaching practice especially in the HE sector.

VET educators approached LMS quizzes from a different perspective to their HE counterparts, defining 'theory' as 'content' (e.g. plans, specifications, laws, procedures, rules and regulations), rather than 'concepts' (e.g. readings) which typified the HE sector. Evident in all VET courses included in this study, this appeared to be particularly significant in the Trades areas where students learnt theory on the job, "*as it happens out there, in the real world*." The role of the LMS quiz took sequential precedence so that:

> *We [also] have, at the end of their theoretical learning, their JSA ['Job Safety Analysis'] quizzes, so we're building to self-test quizzes, which is selective at least. Then when have a final assessment, knowledge assessment, which is usually about 25% of all the quizzes they've done, and that's randomised. The technology [quizzes] are pivotal… it leads into that because they're all doing individual learning. They're doing it at their own pace, and self-motivated.*

Notwithstanding the traditional stereotypical cultural HE/VET clash of 'knowledge' vs 'theory' focus (Heirdsfield et al., 2005), the difference between these two cohorts in their attitudes to, and management of LMS quizzes was interesting. Although both used them for tracking student participation and engagement, VET educators appeared to place a higher learning value on their "*pivotal*" LMS quizzes than their HE counterparts, partly because of the more stringent ASQA compliance requirements of the VET sector (McGavin, 2013). One Trades teacher, for instance, emphasised that recall of facts and figures in his subjects was vital, and that he reinforced this to his students, *"If you get this stuff wrong, you'll either get hurt on the job or cost someone some money."* In this course, students were required to complete multiple instances of quiz tasks to attain full marks and thus achieve competencies. As mentioned previously, what might be perceived as cheating elsewhere was considered to be a form of collaborative learning in this case. Students formed "*unofficial groups with their mates and they blatantly cheat all the way through the quizzes*." In this way not only were specific facts "*ingested*" as the educator expressed it, but this additional support encouraged collaborative learning in students with learning disabilities or low digital literacy skills; this was in some classes "*was quite a few kids*."

The focus on facts and figures related to the workplace was, as to be expected, not unique to the Trades area but was also a priority in other VET courses. One educator in an Accounting unit provided an example of students needing to be able to interpret a Gant chart in the workplace. This was apparently not a priority in the parallel HE course which, she claimed, contained conceptual content, rather than the authentic content of her course which "*gives them the relevant skills they'll actually need in the workplace… they'll actually create a Gant Chart, for instance, rather than just talking about it.*" There appeared to be a sense of superiority here, with this VET educator firmly convinced that her course was 'better' than the HE one, despite admitting that she was not really familiar with the HE equivalent, "*they sit up there in their little silos …don't bother consulting with us.*"

Comparisons between HE and VET courses made by teachers of vocational subjects were not so evident amongst HE academics; one stated that it was simply more about understanding the nuances between 'knowledge' and 'skills,' or 'manual versus mindful' (Billett, 2014): "*My course teaches students what Psychology is. If someone wants to be a Psychologist… say a Counsellor… they can do a TAFE course, and that's fine.*" Another remarked that "*VET'erisation of Unis*" was probably inevitable, given the changing workplace. These comments contrasted with much of the literature claiming that HE academics largely perceive VET courses as 'dumbed-down' (Sych, 2016). Whether these tensions can be explained by this study being located in a dual sector university and how they may impact blended teaching practice is discussed in the conclusion of this study, Chapter 7.

Educators' use of web-based quiz tools

Web-based quizzes were revealed as a preferred alternative for a number of educators who considered the embedded LMS quiz tool to be "*limited,*" "*clunky,*" and "*really, really boring.*" This was supported by the quantitative data which listed a number of web-based quiz tools amongst those used by 22 educators exploring non-LMS quiz tool options (Tables 19 and 20, Chapter 4). Two such quiz tools, 'Kahoots' (which was mentioned in the online survey) and 'Quitch' (a less known but developing tool), were identified by both by HE educators and AD interviewees and were integrated into LMS units for different reasons and with varying reports of success. Such tools, nevertheless, represent benefits that have resulted from the dramatic shift from desktop to mobile learning and teaching enacted on

LMSs as discussed in the *Literature Review* (Chapter 2). With new tools exploding onto the education market, gamification in the form of quizzes is generally considered to be common practice in current blended teaching practice.

Kahoots

'Kahoots' is "a game-based learning platform" (https://kahoot.com/) that requires students to download an app on their mobile phones and answer questions in a competitive environment. A lecturer of a large first year cohort explained how he had introduced Kahoots to manage the last 30 minutes of a two-hour lecture. This was, he informed me, "*a last resort to keep them on track. Even if I pull out all the stops, they're over it after the first hour or so. It's just too long to hold their concentration.*" It was interesting that, while relatively satisfied with the functionality and look of the tool, he did not feel students either really engaged with or indeed learnt anything from the quizzes. "*It's just a gimmick*", he said, "*but they're on their phones anyway by then, so they might as well use them productively…otherwise it's bloody Snap Chat or Tinder.*"

Another educator agreed to some extent, questioning whether learning took place and how it related to engagement, which is claimed as one of the principal objectives of gamification apps (Kapp, 2012; Villagrasa, Fonseca, Redondo, & Duran, 2014):

> *Where does the learning start? OK. It stops them falling asleep for the five minutes that you put up the quiz, but multiple-choice questions, particularly if you're just doing them from a textbook are usually pretty basic and pretty simple. Yes, it may mean that because it's been flashed in front of their faces they remember it better. But do they understand it? I'm not sure.*

Such comments reflect concerns expressed by a number of researchers and educators about the intersection of where games support learning and where they merely provide entertainment. Although Prensky (2011) identified the need for teaching methods to change nearly two decades ago to accommodate and address this issue, interviewees indicated that such change has not yet taken place in this institution, or at least not to any great extent. Consistent with blended teaching practice generally, educators identified time constraints, workload models and insufficient professional development as the main issues around adapting to the 'entertainment education' paradigm.

Quitch

Quitch, like Kahoots, is a gamification quiz app which, according to its website, motivates students by "makes [sic] learning fun via their mobile phones" (https://www.quitch.com). As opposed to Kahoots, educators, while also expressing doubt about the learning benefits of this tool, felt pressured by their departments to integrate it and were understandably more critical. One lecturer felt that "*Quitch is [sic] apparently the magic bullet for what they see as my crap subject.*" Asked to elaborate, she told me that her unit had been identified by "*the powers that be*" as 'at-risk', with low retention and pass rates. Angry with the university-wide 'academic quality enhancement process,' the educator had been told by an AD to try Quitch as an 'intervention' which she interpreted as "*a bells and whistle solution to make the content more engaging and interesting.*" She expressed her frustration by declaring:

> *Well it's engaging them alright, but I don't think it's helping them to learn anything. And I actually found that one student who didn't turn up to the exam today, is second on the leader board, and has maybe turned up to two classes. And basically hasn't submitted any work but he's second on the leader board. So you tell me how that works?*

Reponses by interviewees highlighted the disparity between educators interviewed and studies into gamification which, for the most part, extol the virtues of gamified learning such as quizzes. Comments such as those above contrasted with studies claiming improvements in student performance, engagement and attitude (Subhash & Cudney, 2018), greater productivity (P. Buckley & Doyle, 2016) and higher levels of motivation (Sailer, Hense, Mayr, & Mandl, 2017).

In the case of Quitch, specifically, studies have found improvements in student engagement and higher grades than those who did not use it (Pechenkina, Laurence, Oates, Eldridge, & Hunter, 2017). According to this research, findings that the leader board motivated students would presumably not resonate with the educator quoted above and this aligns with Picciano et al. (2010) observation that "perceptions and attitudes about student outcomes are not the same as actual student outcomes" (p. 26). Once more, it was clear from several comments that the university's mandatory processes were viewed in a negative light, particularly in regard to the perception that courses were identified inaccurately or inappropriately in the first place, "*apparently based on student feedback comments and triangulated with dodgy, quantitative stats.*" The educator elaborated on her complaint,

"They base at-risk units on student feedback. How stupid is that? My lowest achieving students are the ones who give the most negative feedback. Go figure!" For this lecturer, the integration of Quitch into lectures appeared to be a further case of the begrudging compliance discussed previously. This was analogous with cases discussed in relation to lecture capture; the educator reportedly had the tool imposed on her and implemented it without the critical level of commitment which, not surprisingly, resulted in indifference and subsequent failure to achieve positive outcomes. This was possibly reinforced by the educator's own negative rhetoric around the "mandated initiatives and prescribed pedagogy" (Friedman, Galligan, Albano, & O'Connor, 2009, p.252) for courses included in the university's 'academic quality enhancement program' (AQEP). It was not surprising, therefore, that the students reacted to the tool in a similarly unenthusiastic manner: "*The students didn't like it,*" she told me, "*They knew it was a waste of time. Like I did."*

Educators' use of discussion board tools

An LMS tool that educators tended to view primarily as a learning and teaching tool was the discussion board which, as discussed previously, was revealed in the quantitative data (Table 17, Chapter 4), to be the second most preferred LMS tool after Announcements used by 77 and out the 97 respondents to the online survey. This was also indicated in the qualitative results, with many educators reporting frequent use of the discussion board tool. HE educators who regularly used this tool were positive about its pedagogical value. In agreement with studies by Eastman and Swift (2002), Gerbic (2006) and Zhou (2015) that over a long period of time have emphasised the importance of lecturer participation in forums, one educator stated that "a *discussion board is powerful if it's used thoughtfully. It overcomes problems with introverted and international students ... they're often reluctant to express themselves in a lecture or tute."* Several interviewees found the discussion forum to be beneficial for reflection, and as a follow -up to what was covered in tutorials because the students "*have to go away and sit down and actually think*" (Alzahrani, 2017).

Another lecturer disputed the value of the *LMS-based* discussion board medium rather than the tool itself, complaining that students admitted that they first posted drafts on Facebook or Twitter to be uploaded later (presumably after peer feedback) onto Blackboard which, "*somewhat defeats the spontaneity of the exercise.*" Gilmore (2017, p.133) explained that the reason for this was that information is "faster on Facebook" and

more "immediate than the discussion board," particularly if there had been no response to a post. While no other interviewees mentioned discussion boards being used in this way, the trend has been noted by a number of researchers which have investigated students' concerns about use of social media distorting the boundaries between their online social and educational spaces (Gilmore, 2017; Josefsson, Hrastinski, Pargman, & Pargman, 2016; Knox, 2014; Salmon, Ross, Pechenkina, & Chase, 2015; Selwyn & Stirling, 2016; Stevenson, 2011). On the other hand, there is presumably space for both platforms and there is no reason why the LMS and Facebook should necessarily be seen as either/or options for discussion board threads.

The literature suggests that the LMS discussion board is sometimes used for by students for course organisation and management purposes (Limniou & Smith, 2010), with some students "asking specific administrative questions … rather than as a platform to have interesting discussions about the subject material" (Kemran, 2019, p.81). In contrast with tools discussed in previous paragraphs, however, there was no mention of any dichotomy between learning and organisational outcomes amongst interviewees. Educators who mentioned the tool all felt that use of the discussion board achieved the desired learning outcomes of reflection and, for one educator's students, higher level thinking skills, "*you can see that they've analysed and synthesised thoughts…. the Bloom Taxonomy stuff.*" This, according to the research, is the one of the most desired outcome of effective discussion boards (Walters & Henry, 2019).

In response to a question about the pros and cons of graded discussion boards, several educators preferred them to be ungraded. As one lecturer in the Social Sciences area observed, while grading might increase student participation, "*they [the students] would be more likely to head straight to the Grade Book and less likely to read each other's posts.*" While much of the literature disputes this point, arguing that the true learning value of discussion boards lies in the student participation itself (Walters & Henry, 2019), educators who discussed this felt that their courses were already too focused on assessment and that grading collaborative activities such as discussion boards would be counterproductive.

Educators' use of video tools

As supported by much of the literature, about a third of HE educators interviewed integrated videos from YouTube and TedTalks into their face-to-face lectures. The online survey results described in Chapter 4 (Table 18) also listed YouTube as the most used non-LMS tool although, as discussed previously, the LMS is often the default delivery platform for these video clips, especially in flipped classrooms.

In a few cases, educators reported using YouTube videos as a "*filler*" or "*a kind of constructive entertainment*" for two-hour lectures which they unanimously believed were too long to keep students engaged. Echoing previous remarks about a similar usage of quizzes, one lecturer explained that "*a short relevant clip keeps them focused and engaged…and it also takes the pressure off me because my energy flags towards the end.*" This educator believed that his YouTube video clips also reinforced learning, however, particularly if it was a good example of a case study, "*it takes the theory out of the academic realm and gives it flesh*". Studies into YouTube cite many examples of integration of YouTube video clips that support specific learning objectives (Chenail, 2011; Jorm, Roberts, Gordon, Nisbet, & Roper, 2019). Nevertheless, other recent critics argue that students have become jaded with what they now perceive as outdated technology and see the inclusion of YouTube clips as "lazy" or "clichéd" (Shelton, 2016, p.313) and that students act in a mere spectator role when relating to content (Orús et al., 2016). Contrary to this research, the lecturer quoted above told me he usually received positive student feedback about his video clips, that they appreciated what was for them also a "welcome diversion" from what otherwise turned out to be "pretty much a monologue sometimes."

On the flip side, the use of TedTalk videos was valued by one HE educator precisely because of its monologue status and he stressed that he often used a TedTalk to explain a concept more clearly than he could. Asked whether he felt his use of videos enhanced learning, he replied,

> *It enhances it when I'm able to go to a Ted Talk clip that gives an example of something in a much more articulate, context driven way than I can put it across…it might be something to do with certain definitions. Not being an economist, I find it really hard to explain some things, so I just download a video via a Harvard person and say, go to this, and use that in the classroom.*

Further pedagogical use of TedTalks (i.e., apart from providing students with access to subject-matter experts in lectures), was not specifically referred to by any educators in this study. However, an AD mentioned that workshops on how to teach with such videos were common "*back in the day when we weren't so focused on LMS trainin*g." This suggests that there may be instances of current innovative reflective teaching practice with TedTalks amongst the HE academics interviewed which is endorsed by the increasing amount of research on this topic (Banker & Gournelos, 2013; Bell, Panayiotu, & Sayers, 2019; DaVia Rubenstein, 2012; Loya & Klemm, 2016).

Videos as a technological tool in the VET sector differed in a number of ways to the HE sector in type, objectives, value and usage. TedTalks, not surprisingly, were not mentioned by VET educators who appeared to consider themselves as subject-matter experts because of their workplace affiliations and experience and therefore have no need for assistance from the 'high profile business leaders' popular on TedTalks (Bell et al., 2019).

> *VET teachers, they'll go out of their way to talk to a student. We're a different ilk too, VET teachers, we're all out of industry and that's what vocational education is set up for, for industry people and all the teachers are ex-industry. Just not building, but everything. So we know our stuff and we know our students.*

The confidence in knowledge and skills exhibited by VET teachers contrasted with some HE educators, such as the lecturer quoted above, who lacked confidence with subject matter (e.g., economics concepts). Many VET teachers, especially in the Trades area, provided detailed descriptions of their backgrounds and were clearly proud of their expertise. According to a literature review into vocational and higher education by Sych (2016), this may be an important consideration in understanding disparities in the HE and VET sector, particularly in questioning how the chasm between academics and vocational education has arisen. That they are considered as in some way "*second class citizens*" or "*inferior to HE lecturers*" was a common perception amongst VET educators, although they were adamant that this was not the reality; on the contrary, many appeared to view themselves as superior to HE academics who, according to one VET teacher, *"[they]* stay *up there in their ivory towers… and do their research, and then think they know all about what teaching is*." HE educators, on the other hand, did not comment on VET teachers or, indeed VET courses, except for the Criminology lecturer who pointed out the different focus between

his HE unit and the parallel VET one. The tensions between educators' professional self-identities in HE and VET may shed some light on this, and issues impacting blended teaching practice in dual sector universities are discussed throughout this study.

Chapter Summary

In this chapter I have discussed the most frequently used LMS tools identified by interviewees in the qualitative data in this study: *Lecture Capture, PowerPoint, Turnitin, Grade Centre, Quizzes* and *Discussion Boards*. Surprisingly, Email was mentioned by only one participant in the interviews. Based on this, I assumed that this tool was such a fundamental part of educators' academic lives that it was possibly not considered to be worthy of specific reference (Selwyn, 2017). Although a number of 'external' tools were used by educators, these largely applied to the VET sector and were, in most cases, integrated into courses as 'work-arounds' to the LMS because or perceived inadequacies in the system. Accordingly, these tools in relation to the LMS can be perceived as both enablers and barriers to effective blended teaching practice.

The focus of this chapter is on the way in which educators use technology in their face-to-face teaching and what issues and challenges they face with integration. A number of interesting factors were illuminated by the interview responses, and I have offered some plausible explanations as to why there is a degree of confusion and disagreement in perceptions about what constitutes 'learning and teaching' vs 'organisation and management' LMS tools; how the issue of teacher agency impacts educators' perceptions of and use of technology; and the ways in which they use technological tools in their face-to-face classrooms. I have also highlighted and discussed a number of tensions as well as commonalities that have emerged between the HE and VET sectors and identified potential areas for future research in this area.

Chapter 6: Impact of Academic Development on Blended Teaching Practice

Introduction

This chapter examines the important theme of the perceived impact that academic development has on educators' blended learning and teaching practice. The discussion is informed by interviews with both educators and academic developers; the latter cohort was added in order to triangulate the qualitative data (see Chapter 3, *Research Methodology*). As in the previous chapter, this discussion is supported where relevant by the descriptive quantitative data presented in Chapter 4 (*Online Survey Results*). As research in this area has concentrated to date on educators, rather than the professional staff who provide them with support, a substantial part of this chapter focuses on the largely overlooked cohort of academic developers and the role they play in influencing blended learning and teaching in the HE and VET sectors.

Language and terminology

For purposes of clarity, I deliberately use the terms '*academic development'* and *'academic developers'* (ADs) throughout this study. Current literature is engaged in vigorous debate around the accuracy and appropriateness of definitions and roles related to the concept of academic development and blended learning in general. As I have discussed this theme in detail in my comprehensive literature review (Chapter 2), I refer to it here only when I considered it to be of particular significance. Also, to avoid confusion, I have kept comparisons and contrasts between the HE and VET sectors to a minimum in the body of the chapter, choosing rather to include a separate section on the dual sector dichotomy.

Content of the chapter

The first section offers diverse views about the concept of academic development and the function of academic developers which is discussed in relation to both the literature and the data in this study. Educators' and ADs' perspectives are explored, together with issues around obscure language and the impact this may have on academic development.

The second section focuses on the work of ADs. In particular, I identified a number of tensions between the AD and educator cohorts and discussed the impact these may have

this may have on academic development and how this may affect educators' effective blended teaching practices. The crucial role of managers and their attitudes towards academic development and its related processes and strategies are interrogated.

The third topic addresses the extent to which ADs and educators believe that academic development meets the needs of educators. Three kinds of professional development are debated from the perspectives of both the AD and educator cohorts. The theme of educators' compliance is identified and explored as a possible barrier to effective professional learning and academic development.

Issues in relation to the dual sector university on which this study is based are discussed. VET educators' attitudes to academic development are analysed and tensions between them and their HE counterparts are also investigated.

General Understandings of the Concept of Academic Development

The lack of clarity around the concepts of blended learning and teaching was reflected in the tension between researchers' claims and the opinions of participants in this study about what academic development meant to them. As discussed in Chapter 2, *Literature Review*, debates about the legitimacy of academic development as a recognised discipline supported interview data. ADs felt that a general confusion throughout the university reduced the efficacy of their programs and had a negative impact on their work. Furthermore, both ADs and educators believed that ineffective and fragmented institutional development strategies ultimately failed to align with strategic learning and teaching initiatives. The issues related to this theme, as identified by interviewees, are discussed in the following paragraphs.

A lack of consensus around what academic development signifies was a common complaint from educators, with opinions varying considerably between research into the topic as well as between the ADs and educators themselves. One body of literature stated that academic development encompasses curriculum design, teaching methods, organisational and sectoral issues (Fraser & Ling, 2014), together with research into teaching and learning. Other studies discussed in the literature report increasing levels of concentration on the development of online resources which are informed by technology and driven by the implementation of blended learning agendas in universities.

Educators' and academic developers' perspectives

ADs and educators offered diverse views as to what the term 'academic development' meant to them. Although there was general agreement that it involved more than what one HE lecturer drolly referred to as *"pestiferous workshops,"* educators in this study generally equated it with 'professional development' or simply with 'training.' Another senior lecturer colleague complained that, in her opinion, the term 'professional development' itself had a negative connotation in regard to her teaching:

> *They assume that our lectures, because they're lectures, are crap and we need to be 'fixed', usually with technology. This is just not the case. I've been teaching 13 years and my student evaluations are consistently high. I'm a good teacher.*

A body of literature agrees with this viewpoint. For example, a study by Van Schalkwyk, Leibowitz, Herman, and Farmer (2015) claimed that the 'catchall phrase' professional development could be viewed as pejorative, with the word 'development' implying "work of a remedial nature, or a deficit model" (p.5). Likewise, Stes, Min-Leliveld, Gijbels, and Van Petegem (2010) stated that alternative phrases such as 'educational development', 'faculty development', and 'instructional development' suggested that academics were not proficient as teachers and needed to be 'developed' in order to improve.

To address the issue of pejorative connotations of the word 'development,' many universities have re-imaged academic or professional development as opportunities for 'professional learning' 'lifelong learning' or 'continuous professional development' (CPD) (Louws, van Veen, Meirink, & van Driel, 2017). However, despite increasing rhetoric around this theme, both the quantitative and qualitative data in this study suggested that the replacement of the word 'development' with 'learning' or to add the prefix 'continuous' to professional development would probably make little difference to outcomes unless educators become what Louws et al. (2017, p.477) described as 'active agents' who can diagnose their own learning needs and become self-directed learners.

Interestingly, one HE lecturer added the field of research to his definition of academic development, stating that he had attended several workshops about supervision and grant development which were run by the Research department. These sessions included presentations by *"guest speakers who were experts in the field and had lots of HDR*

completions," rather than by the central learning and teaching unit. He added that this was the only kind of PD he had 'voluntarily' attended because they were relevant to his work and career trajectory. Regarding career relevance and academic development, one VET educator reported *"a fair amount of administrative and auditing type PD"* or, as a participant in a study by E. Smith (2019, p.6) called it, "PD related to the system functioning rather than us functioning." The implications of these attitudes for institutional development plans (especially in the context of the dual sector university in this study) and relationships between ADs and educators are discussed later in this chapter.

Language related to academic development

A number of educators complained that language negatively impacted their interest in professional development. Emails from the university's central teaching and learning unit reportedly contained *"inaccurate and misleading blurb"* about PD that covered *"everything that will apparently transform us from being boring as batshit teachers to God's gift to academia."* As a senior lecturer complained:

> *They advertise academic development opportunities on the website, yeah… it's not really about academia though…well I don't see it like that anyway. For my faculty it's all about upskilling with this tool or that.*

Furthermore, educators were of the view that the language embedded in PD sessions was "*confusing*" and "*obscure*." These perceptions appeared to be based, at least in part, on what they considered to be the inevitable hubris that accompanied communications about the use of technology, and their scepticism centred around hyperbolic language which they described as "buzz words", "jargon," "hype," "bullshit language," "eduspeak stuff," "edu-techo-crap" and "gobbledygook."

The issue of jargon seemed to be of serious concern to some educators. For example, the lecturer who added the term "*gobbledygook*" to the lexis above, suggested:

> *Have a look at Don Watson's book on 'Weasel Words'…he explains how those in power have sucked the meaning out of words. That's what these people do. They talk and talk and say nothing. Academics don't do that.*

An interesting byplay of this was that Watson (2005, p.2) scathingly referred to 'weasel words' as words of the "unfaithful, spies, assassins and thieves…bureaucrats and ideologues love them." While there is no suggestion that this educators' views were as

extreme as Watson's, his acerbic remarks on the impact of scholarly communication containing empty clichés of "nothing words that obfuscate meaning" were both passionate and palpable. This, according to the literature, is not an uncommon perception amongst educators who are feeling doubtful about their "pedagogical and technological standing and feel alienated by academic discourse" (Mor, Craft, & Hernández-Leo, 2013 , p.6). It is not surprising, then, that they approached professional development in a similar way, possibly feeling that these sessions, as with "the lunacy of management jargon" (Watson, 2005, p.3) are inaccessible.

Factors Impacting the Work of Academic Developers

The interview data revealed a number of factors which ADs believed negatively impacted their work in supporting educators' blended teaching. These are listed below and are discussed in the following paragraphs:

- relationships between ADs and educators.

- role clarity and titles.

- management attitudes towards AD roles.

- academic development strategies and processes; and

- workloads and institutional culture.

Relationships between academic developers and educators

Academic developers' perceptions of educators

As to be expected, ADs overall had a broader conception of the term academic development than educators who, ADs claimed, saw themselves as *"victims of the system;"* Consequently, HE academics were at times uncooperative, at best physically present but not really engaged with the support that was offered to them. As discussed in Chapter 2, a body of research supports this view of negativity amongst academics. For example, Selwyn (2013a, p.1) making a similar observation to that in Polya's (2012) review mentioned previously, writes:

> *In taking stock of this catalogue of digital woes, one has to remember that university academics are notoriously hard-to-please. The default state of most academics is 'disgruntled' – be it in relation to the quality of their staffroom coffee or the state of global politics.*

ADs conceded that professional development was too heavily focused on workshops and technology, in particular which was, as one lamented, *"sadly, mostly on Blackboard."* Nevertheless, most believed that pedagogy - *"at least in theory"* - played an integral part in their academic development work, just as technology did, and that educators simply chose not to acknowledge this. A caveat they placed on this was a common view that negative management attitudes to AD roles and institutional success in devising effective development programs and strategies weakened their effectiveness with educators struggling to teach in a blended environment.

A number of interesting interview discussions with ADs centered on students who should unequivocally be the ultimate beneficiaries of academic development. Yet, according to ADs, educators' complaints usually related more to work-related problems (e.g., time and research pressures) than to perceived student needs. With the vast majority of research in the field focussed on students' rather than educators' perceptions to blended learning and teaching (Islam, Beer, & Slack, 2015), these concerns seem justified. One ex-teacher AD who was well informed about the research, questioned whether educators were even aware of the evidence around student studies. *"They never read anything about teaching,"* she remarked, *"it's all about their subject area."* They were surprisingly intense about this theme, making such negative statements as *"academics couldn't give a shit about their students"* and *"it's not about the students, it's all about their research."* These comments were not supported by educators; some were critical of research-focused academic positions, while several others insisted that their students were still high on their list of priorities, despite the unfortunate reality (as one educator saw it) that *"no one ever gets promoted to professor on the basis of their teaching."*

As far as professional development around technology was concerned, the AD comments about perceived educator indifference to student needs contrasted sharply with educators' statements: *"I wouldn't mind technology in the classroom if I thought it really improved student learning"* and *"I only use Kahoots because the students really like it…for me personally it's a pain in the neck."* With such a disparity in viewpoints on this theme, it is not surprising that ADs and educators in this study seemed unable to work together to effectively leverage technology. The reasons why this may be the case are difficult to explain and there are clearly a number of complex factors at play. Some of these issues

identified were related to roles, skills and backgrounds, placement within the university structure and tensions with management. These are discussed in the following sections in this chapter.

Educators' perceptions of academic developers

AD roles and function

Research into academic development exploring factors that enable educators to successfully integrate technology into their teaching concur that the role of the academic developer in providing support is crucial to the process (Geertsema & Chng, 2017). This was, however, not evident in the views of most educators in this study, most of whom showed no particular interest in ADs in general. The literature in the field suggests that this is not uncommon, with ADs frequently viewed as "mere service providers" (Geertsema and Chng (2017, p.183) in universities worldwide. Nevertheless, even in light of such derogatory descriptions as "*ineffectual*" and "c*ondescending,*" it is difficult to believe that educators were unaware of the informed pedagogical objectives, skills and broader role of ADs. Several comments supported this assumption: for example, one stated "*I think most [ADs] actually know their stuff*" and another explained that "*she worked on aligning my assessments with my learning outcomes which was really useful.*"

Most AD interviewees were aware that educators viewed them as lacking pedagogical skills, even though several ex-teachers who had *"drifted into"* academic development positions felt that they probably knew more about teaching and education than the academics. One young AD struggled with comments such as, "*I've been teaching longer than you've been alive. Which is sometimes true. You can't argue with that. I can't argue with that.*" There was a common misconception amongst educators, she believed, that ADs were *"hell bent on teaching them how to teach.*" This view of educators appeared to be mostly in relation to the AQEP process which, as mentioned previously, was an integral part of the professional lives of both cohorts. Relating again to the 'deficit' perception mentioned previously, educators felt maligned by what they described as "*dodgy,*" "*inaccurate*" and "*ridiculous*" quality assurance statistics released to their Departmental Heads in regard to low retention rates, higher than acceptable failure rates and negative student feedback. Only one HE educator I asked about AQEP knew what the acronym represented, and she was clearly not an advocate of the process: *"Dunno how they justify stuffing with your courses by calling it enhancement!*

ADs generally disagreed with educators about analytics which they felt were justified. However, they felt ill-equipped and highly uncomfortable about approaching them with possible solutions. As discussed in Chapter 5, this related partly to what they viewed as 'band-aid' technical solutions to systemic problems which were unrelated to academic development. Even more importantly, their discomfort lay in having to assume various diverse and inappropriate roles such as "*part coach, part teacher, and even part counsellor*" – responsibilities that one AD felt were abrogated by the faculty heads and which were, at times, "*highly distressing.*" Barrow and Grant (2012, p.470) indicated that this may be a wider problem across universities; their study reported on an AD who was also asked to investigate high failure rates and was subsequently confronted by a faculty Head of Department with the line, *"oh, you're the bloke who's come to tell us how to teach, are you, mm?"* Ironically, the serious complaints about the AQEP process in this study united the AD and educator cohorts in a unanimous complaint about the pressure it placed on all staff. This uneasy and unusual consensus between the groups was apparently unheeded by management who attached a high priority on the system. D. Gosling (2008, p. 27) warned of the dangers to ADs' credibility when part of their role is devoted to 'quality' which, he claimed, can be seen as a tool of some "sectional interest in the minds of those who are not sure what it does" (in this case, probably both the AD and educator cohorts). Gosling's (2008) claim that this results in negative associations between ADs and quality assurance supports the findings of this study even a decade later.

One of the greatest challenges faced by ADs in their attempts to empower and upskill educators to deliver effective blended teaching was that much of the professional development reportedly took place in the face of resistance, resentment and sometimes what ADs considered to be disturbingly high levels of cynicism. Even more worrying to several ADs was the degree of *"outright hostility"* on the part of a number of educators. This was not considered to be widespread, however, with a number of ADs reporting counter-instances of grateful, polite and appreciative behaviour from academics in PD sessions. For instance, one educator acknowledged and indeed regretted his negative attitude to PD sessions and to ADs in particular:

> *I'm not proud of my behaviour in one workshop. I wasn't rude I don't think. But I made it pretty clear I wasn't interested. I wasn't even on the Blackboard*

> *screen. I felt sorry for the guy [the AD] ...he was just doing his job. He must*
> *have been pissed off. I would've been.*

Tellingly, and perhaps somewhat tangentially, the above comment was made in response to a question about institutional issues, relating what the educator described as "*a crippling work-load.*" This lecturer had attended a workshop which he believed to be a Blackboard support session only to discover it was about a virtual classroom tool (Echo360) which, in his opinion, was irrelevant to his teaching. Echoing previous comments about misleading emails, the information about the content of the session was, he insisted, inaccurate and the consequence was an hour wasted when he could have been doing something 'worthwhile.' ADs interviewed appeared to be familiar with, and somewhat dismissive of complaints such as that from the educator above, claiming that they often failed to read e mails about PD:

> *They just hit the 'delete' button when they see it's from us [the learning and*
> *teaching unit]. Then when they're told to come to something, they turn up*
> *unprepared and ill informed.*

Such dissatisfaction on the part of educators was not so high according to the quantitative data, where almost all responses (85 out of 90 respondents) that related to internal workshops fell into either the 'very useful' or 'somewhat useful' category (Figure 10, Chapter 4). One might perhaps assume from this data that internal workshops across the wider sector do not necessarily equate to LMS training. However, several open text responses to survey question 14 about the perceived effectiveness of types of PD contained similar disparaging comments about internal LMS workshops, e.g., "*am over Moodle PDs*" and "*...BB training usually, unfortunately.*" One survey participant also strongly suggested in an open text request to 'add any other types of useful professional development' that "*anything other than f****** Canvas would be useful.*" (Question 14, Figure 10, Chapter 4).

Communication and feedback

From my interpretation of the comments made by interviewees, this theme highlighted a need for improvement across the wider institution if it is to support both educators and academic developers in affecting change in blended teaching practice. One such initiative could be in interrogating the types of feedback provided to all stakeholders. Although I did not address the theme of evaluation in detail in my research, interviewees implied that

academic development evaluations were perfunctory and probably produced equally cursory analytics. This would appear to be a missed opportunity to collate valuable data and subsequently act on feedback and suggestions for future development activities. The lack of effective communication both through feedback and in the general professional context of PD sessions can also be seen to have contributed to the levels of educators' compliance rather than engagement. This is discussed both in this chapter and the previous one.

Role clarity and titles

What's in a name?

For over a decade researchers have claimed that role titles and naming conventions are a worldwide problem that can influence both educators' and ADs' conceptions of the nature of their profession and the value of their work. Fraser (2001) found that names were perceived by ADs to be important, firstly because they signal an identity to others and secondly because the name causes them to think about who they are and makes them "more likely to act in certain ways and not in others" (p.62).

Although the majority of participants in this study reported feeling *"irrelevant,"* *"marginalised"* and *"disempowered"* in their AD roles, they disagreed, for the most part, with the importance of role names per se*.* One experienced AD who had held *"multiple titles in my [sic] time, not all of them very polite"*, felt that her current title was not as accurate as some other labels attached to these professionals (e.g., 'instructional designer,' 'learning designer,' 'e-learning advisor'). Nevertheless, she believed that this was irrelevant as long as she felt valued professionally, and she did not think that any such naming dilemmas affected her work. Increasingly, studies into this area have reported the confusion of naming conventions of these professionals (K. Mitchell et al., 2017), so the tension between the literature and the AD cohort in this study is difficult to explain. All ADs agreed that there were many challenges caused by a lack of understanding from management about their roles and were concerned about what one referred to as the *"inevitable reputational implications of the confusion."* Perhaps, given some of the wry remarks such as from this AD who referred to his current title as *"academic developer or whatever the hell I call myself,"* it is plausible that they are simply too preoccupied with other problems to bother with mere trifles such as professional labels and names. Another

contributing factor may be that ADs come to the role with a wide range of backgrounds and equally diverse skills (Bird, 2004), which often leads to their roles as "an accidental pathway" (Fyffe, 2018, p.357). Therefore, they may see questions about their identity as platitudinous and assume that it is impossible to agree on one common, all-inclusive moniker anyway. As stated in the Introduction of this chapter (as well as in the *Lexical Choices* paragraph of Chapter 3), I made a decision for the purposes of my study, to choose umbrella terms for both *academic 'development'* and *academic 'developer'* (Van Schalkwyk et al., 2015).

Confusion with learning technologists

A factor that was perceived by ADs to blur the boundaries around their roles and titles was the confusion between their responsibilities and those of 'learning/educational technologists'. While, as discussed previously, allegedly inaccurate descriptions of role clarity are highlighted by research describing typical academic development as work that emphasises curriculum development and training (Bath & Smith, 2004; Fraser, 2001), these studies make little reference to technical expertise which ADs felt was significant in regard to clarification of their role. This was not because they felt technical skill should be included in their workloads as such, but rather because it was often, at least implicitly, used as a criterion for appointment to these positions. Moreover, although several interviewees explained that they were 'tech savvy,' they felt that their expertise was paradoxically both undervalued and overrated. Educators in need of technical support often approached ADs, some of whom resented the implication that they were mere "tech people" (Ritzhaupt & Kumar, 2015, p.58), when they should be providing broader pedagogical support (Barrow & Grant, 2012). One academic developer in this study reported that she often experienced such requests, often approached by *"random lecturers"* to format Word documents or search for printer drivers. To deter a sessional lecturer who occasionally 'hot-desked' near her, she humorously told me that she had installed *"a red stop button which yells 'no' when you press it"* on her office shelf. Incidentally, this AD appeared to take educators' requests with good grace, unlike others who were not so amenable. Indeed, some of their angry protestations were surprising, perhaps highlighting feelings of inadequacy and ambiguity about AD roles (K. Mitchell et al., 2017). This also raises the question of whether Hil's (2012) and Selwyn's (2013a) descriptions of academics being 'disgruntled by default' may apply equally to this AD cohort who also appeared to have what Selwyn called a "catalogue of digital woes" (p. 3).

Offering an alternative explanation, one AD believed that they were often *"lumped in as techos"* not because they were lacking in credibility, but rather because it made them more accessible:

> *People don't feel embarrassed about asking for support with technology. There's a perception that if you're an academic, and you're teaching, you should know how to teach. I don't know why, it's not like you'd actually done any teaching training or whatever else, but yeah. You're an academic, you're teaching, therefore you know how to teach. So to them to ask for advice in teaching, is to actually show some vulnerability, and express some weakness, and that can be quite a difficult thing in a Higher Ed institution. But it's perfectly okay for people to say, "Oh, I don't understand computers… I mean it's like having to see a mechanic or something. You respect the mechanic's expertise, yeah.*

If blended teaching is defined in terms of increased of technology in the face-to-face curriculum, the question can then be asked as to whose role it is support its integration and whether this matters. Selwyn (2016a) stressed the need for educational developers to question, challenge, and evaluate when - and indeed if - academics should be integrating technology into their face-to-face teaching. Such a process of critical assessment may be difficult to achieve in the current climate described by both educators and ADs in this study. While I make attempt to generalise from my data, it is possible that this situation also exists in other institutions: an AD from an Australian university tweeted that as a group:

> *[We] are in a tight spot, having to be both advocate and critic. If you advocate, people assume you are not critical. If you are critical, people assume you are against tech. Is 'critical advocate' an oxymoron?*

The position of academic developers in the organisational structure

Drysdale (2018) highlighted the pivotal role that organisational structure plays in the ability of ADs to maximise their potential to meet the needs of educators. Drysdale defined organisational structure in terms of a number of the management factors discussed in chapters in this study (e.g., decision making, strategy and process, and recognition and clarity of AD roles). For the purposes of this research, I have included the location of AD work units in this section as it emerged as a noteworthy theme in the qualitative data.

Central vs faculty-based learning and teaching units

The positioning of university learning and teaching centres was reported as a further factor influencing the effectiveness of professional development. Research on this theme is scant. A study by Ciabocchi, Ginsberg, and Picciano (2016) claims that *decentralised* units create issues around distribution of power and responsibilities which can be a challenge to achieving innovation and changes to learning and teaching. On the other hand, Häkkinen and Hämäläinen (2012, p.234), suggest that learner-centered environments which integrate both formal and informal learning experiences and resources facilitate more lifelong learning. If such personal learning opportunities for educators were offered in *centralised* teaching and learning units, more effective professional development might then occur, albeit with possibly lower levels of innovation, presumably at least partly because curriculum would still be the responsibility of faculties.

Academic developers' and educators' views

Remarkably, there was general agreement between the perceptions of educators and AD interviewees about teaching and learning units. Most participants were of the opinion that a centralised unit such as the one in this study was deficient in a number of ways. Consensus ended on that point, however, revealing a number of dissenting voices on why this might be the case although, unlike the literature, the focus was not on teaching and learning, but rather on systems and the work-related issues discussed previously.

Firstly, the issue of accessibility was raised by several educators who complained that they felt *"detached," locked out by a friggin' swipe card,"* and had *"no idea who's who, or even who the contact person is."* ADs were impatient with such grievances, all of which they claimed they had heard many times. One stated that educators made no effort to approach them, preferring rather that *"we dance attention on them in their office,"* while another thought that once again time was the issue, *"they [academics] whinge about having to traipse across campus for 5 minutes' support".* The main problem with a centralised unit identified by several ADs was that they felt they were not involved with curriculum and other pedagogical decisions made by faculties, an issue which could be rectified if they were *"on the ground, at the coalface"* (Drysdale, 2018; Legon & Garrett, 2017), where they would be better placed to understand the decision context (Dee & Heineman, 2016). Echoing this, a colleague added that the AD team would be more effective if it were *"isolated from the damaging influence of management."* Several of the ADs who discussed

this topic believed that a centralised unit was underpinned by institutional financial decisions such as saving resources, while another was convinced that management was afraid of *"letting us loose in the faculties, we'd have too much influence, and they'd not have enough control."* Whether these comments are reasonable is difficult to assess as there appears to be scant research into the reasons why 'instructional design' teams are dedicated to centralised or decentralised departments (Drysdale, 2018, p.27), or into what role within the infrastructure of these departments they play. There is also a gap in the literature in regard to the influence ADs (and indeed their learning and teaching units) exert on university-wide curriculum decisions or pedagogy. This is addressed in the following chapters.

Academic developers' employment categories

A further factor influencing perceptions of academic developers was evident in relation to their employment categories. In an Australian study questioning the 'academic' component of 'academic development,' Fraser and Ling (2014, p.236) claimed that staff involved in 'strategic initiatives' and 'policy development and implementation' are usually appointed into academic positions. This contrasted with the reality for ADs in this study, however; all were employed under the professional Higher Education Worker (HEW) category which effectively meant that they were described in official university lexicon as 'non-academic staff.' As Torrisi-Steele and Drew (2013) stressed, it is essential for ADs to have an understanding of academics' agendas if they are to influence blended learning and teaching. My perception of this ironical situation was that the 'new professionals' (Gornall, 1999; Oliver, 2002, p.245) in this cohort were not able to achieve this; indeed, they were identified, in an unfortunate way, by what they were supposedly lacking. It is not surprising that this might contribute to a perceived status gap; *"It's reputational,"* one AD declared, *"and it's about pride as well…and, yeah, feelings of self-worth. All that stuff."*

Recruitment of academic developers

An interesting anomaly related to employment category was highlighted by one participant's concern about the way poor recruitment decisions influenced the quality of work in her department. Notwithstanding the fact that she had a PhD, (*"admittedly in biomedical science"*), this AD felt that the qualification sometimes influenced management decisions to recruit what transpired to be inappropriate candidates, while those possessing teaching qualifications and more learning design experience were overlooked. Confirming

a typical opinion that management had insufficient understanding of the concept of academic development, it is reasonable to suggest that in this case, the prestigious label of 'academic' presumably conferred automatically (and possibly erroneously) with the attainment of a PhD (Sabri, 2010), was confused with its relevance to the role of academic developer. In such an ambiguous and complex environment, it is perhaps to be expected that increasing numbers of ADs are reportedly embarking on PhD studies in a bid to advance their job prospects and perhaps to give them more standing with their academic stakeholders (C. Simpson, 2018). Whether or not this may have any effect on their work in encouraging educators to achieve effective blended teaching practice was a matter of disagreement between two interviewees who debated this point. One thought that a PhD added credibility because of what he described as "*tribalism amongst academics… if you're not part of the tribe it's a lot harder to be taken seriously".* His colleague, on the other hand, had never been asked about credentials nor discussed them. It was, she felt, totally irrelevant to academics. She raised the interesting point, however, that this could be attributed to her experience and confidence in the role, adding that "*If you're feeling insecure or conflicted in the role, maybe you need to talk yourself up with a list of qualifications*."

This qualification/credentials issue could be seen, in some cases, to create the unfortunate situation wherein developers are 'appropriately credentialed' while being 'inappropriately qualified' for the position. Predictably, the incongruity of this led to further tensions in expectations between ADs, managers and educators and to developers themselves. As one educator complained:

> *[Manager's name] assured me that there would be opportunities to write,*
> *especially as my thesis was directly relevant to blended learning… but that*
> *didn't happen. I was later told in no uncertain terms that only academics had*
> *time-release. It's ridiculous…empty promises and no recognition at all.*

It is worth noting that both PhD-qualified academic developers quoted above resigned shortly after these interviews and it is possible that a perception of being 'defined by what they are not' contributed to their departures. While out of scope of this study, an investigation into what measures are currently being taken by institutions to find solutions for such issues and to address what is reported to be a high turnover of ADs would be useful.

Implications of academic developers' employment categories

Perhaps not surprisingly, in their professional capacity ADs often found themselves in the untenable situation of having to champion policies with which they fundamentally disagreed, but which they had to manage as best they could (J. Gosling, Bolden, & Petrov, 2009). As one interviewee explained:

> *it's awkward toeing the party line… the university's introduced this or that policy or strategy or vision for all the wrong reasons. I know that and they [the academics] know that I know that.*

A consequence of this was that some educators thought ADs were "*on the side of management*" or "*in with the propaganda police*" as one irate HE convenor described it. They were seen as being complicit, therefore, with everything that entailed, such as lack of trust, common goals and professional credibility. Hicks (2005) described this kind of positioning of ADs as being 'caught in the middle,' working in an academic space full of 'fractures' and 'fault lines' (Rowland, 2002) and being "foot soldiers of the administration and representatives of the University" (Rowland, 2007, p.11).

The literature on this topic differs markedly, once again highlighting dissention between research claims and the beliefs of the AD cohort. For instance, one study reported on a paradigm shift which, is claimed, is being experienced by ADs worldwide This allegedly includes Australian developers who are enjoying major changes in the nature of their work and role (Boud & Brew, 2013), in a transformational workplace informed by institutional decision-making in relation to vision and strategy such as desired by Challis, Holt, and Palmer (2009). While this may be occurring in Australia as well as globally, it was not evident in this study. On the contrary, AD participants generally felt that they were firmly placed on the periphery of organisational decisions, rather than at the centre, as claimed by the literature (Gibbs, 2013). Neither did they consider themselves to be part of any metamorphic, authentic or disruptive paradigm such as that recommended by Loads and Campbell (2015). On the contrary, they felt caught between two identities and with different allegiances which affected their work in encouraging educators to engage in effectual blended teaching practice. These views of having to "*constantly manage competing agendas*" as one AD described it, are confirmed by many studies with ADs in other institutions (see Chapter 2). In reality, it seemed, the majority of them are trapped in a kind of 'suspended animation' between management and faculty. In this study they could

see no solution, at least in their current institutional climate. Notably, in light of the earlier references such as that by Gornall, (1999) above, as with many issues around blended teaching and learning, this does not appear to have changed in two decades

Attitudes of managers towards academic development

Comments from ADs indicated that management issues had a profound effect on feelings of inadequacy and dissatisfaction with their roles which impacted their professional work. Studies in support of this view have identified the need for institutional recognition of academic developers' high skill levels and their capacity to make appropriate decisions in regard to professional development activities they see as necessary (Drysdale, 2018). According to most participants in this study, this need did not appear to be adequately met; on the contrary, as well as failing to acknowledge their skills and expertise ADs, as well as educators, felt that management did not understand what true academic development was about. The literature highlights varying degrees of such confusion between educators and managers who must navigate complex, esoteric boundaries "between the pedagogical and technological, and the academic and professional" (K. Mitchell et al., 2017, p.147).

Attitudes of managers towards academic developers

A further problem, also endorsed by the literature, was the perception of interviewees that the priority of management was the demands of *"the powers-that-be,"* rather than the needs of the most important stakeholders, i.e., the academic staff (Geertsema & Chng, 2017; Kolomitro & Anstey, 2017). As one AD complained, *"They dance to the tune of the [faculty heads] ...say yes to everything they ask for... without any idea about what they are committing us to."* As Boud and Brew (2013, p.211) expressed it, "their [ADs'] ultimate client is the organisation, not the practitioner, and this generates dilemmas in their practice." As discussed in the following chapters, lack of institutional acknowledgement of the value of ADs may impact their potential to enhance blended teaching practice through fostering positive working relationships with educators (Kadi-Hanifi et al., 2014).

A final interesting point was made by one AD in relation to blame, the academic development support role and the wider integration of technology across the university. In her opinion, managers saw technology as a panacea for everything. She claimed that:

> *Whenever there's a problem, they use a tech tool as a band aid. So, admin issue. They implement [name of new student tracking system]. Teaching issue…let's introduce a new LMS. Student issues…bring in learning analytics.*

The drawback with this was that when the technology failed to meet expectations, someone was automatically assumed to be at fault. The AD felt that she was now 'first in line' as the person responsible because her training, rather than any error in judgement on the part of managers, was considered to be *"inadequate, or irrelevant, or just plain rubbish."* This version of events appeared to be somewhat overstated, especially in light of current literature that is constantly reinforcing the strong and apparently widely accepted narrative that 'technology is not a silver bullet' (see Chapter 2). Nevertheless, this emotional response from an interviewee was a powerful example of the uncertain and ambiguous culture within which ADs are ostensibly obliged to function.

In addition to the need for recognition of skills and professionalism or a "thirst for legitimacy" (Fyffe, 2018, p.360), ADs expressed the desire for their uncertainties and anxieties to be acknowledged in a meaningful way. This was mentioned by several participants who agreed that management was found wanting in this regard. One senior AD felt that while her manager had made a genuine attempt to support her and her colleagues, he was too willing to revert to a Human Resources workshop on *"some esoteric psychological tool"* or *"a managing change workshop"* rather than spending one-on-one time listening. While these activities were probably necessary for wider institutional agendas, she did not feel that they provided a useful solution to her individual personal or professional problems. A second respondent agreed, stating that negativity was "*put in the too hard basket"* and that his manager preferred to put a positive spin on all but the most serious of issues which unfortunately included job dissatisfaction. He described managers as *"they exist[sic] in blissful ignorance and play bloody Pollyanna."*

Academic development strategies and processes

While the literature in this field proliferates with models describing effective academic development approaches and practices (Boling, 2017; Fortney, 2017; Gibbons et al., 2014; Richey, Klein, & Tracey, 2010; Sugrue, Englund, Solbrekke & Fossland, 2018), gaps in regard to information about design processes themselves remain. These processes were largely perceived by ADs as outdated, inefficient and inadequate.

> *With our process, there's a focus on the delivery of artefacts and learning design which is misplaced... a lot of the work we do within academic development is iterative, it's conversations, it's checking in, it's reviewing, it's reviewing the literature. Our managers ignore those factors altogether.*

A similarly minded colleague reiterated the need discussed previously for rich conversations to take place to foster relationships. She stated,

> *I think that there are two ways that people manage integrating technology into universities. One is dribbling it along, building relationships and getting it in where you can. The other one is the Trojan Horse.*

The latter approach she described as people "*raving about technology... we're all going to get on board with it and the world will be a better place.*" This, in her opinion, deterred educators - unlike the relational approach which encouraged trust and empowerment. Literature endorses this view, arguing that "authentic, practice-based [academic] development is related to everyday activities, embedded in the context of real-world relationships, opportunities and constraints" (Loads & Campbell, 2015, p.356).This kind of authentic development presumably implies some connection with educators' values and feelings, however, and it seems unlikely that that this could take place in the context described here; as the developer claimed, trust and empowerment were, in her view, diminished by what she termed the *"Trojan Horse"* approach.

While sympathetic about institutional managers' "*change fatigue*" which he felt influenced decisions related to all their strategies and processes, another AD claimed that the factors commonly considered to be crucial to the success of academic development work were simply not acknowledged in the workplace. Concurring with the literature (Bamber & Stefani, 2016; S. Bennett, Agostinho, & Lockyer, 2015), this interviewee cited institutional support and teacher agency as necessary to create favourable conditions in which educators could adapt to new learning and teaching technologies and strategies, "*they have to feel part of it, see the need, what's in it for them if you want acceptance and changes in teaching.*" The nature of what was variously described as an *"unidentifiable,"* *"ad hoc," "piecemeal"* and *"reactive"* institutional academic development strategy was clearly a source of frustration to ADs, one of whom described it as a "*cottage industry,*" by which she meant *"limited infrastructure and outcomes".* A further concern was a

perception that managers were in denial about the deficiencies in current strategies, even to the extent of giving, as one AD expressed it:

> *…bells and whistles PowerPoint presentations at high-level meetings about professional development… they claim continuous improvement processes … professional development processes with key instructional pillars and goals. It's empty rhetoric.*

Degree of alignment of academic development activities with educators' needs

Not unexpectedly, in light of the discussion from the previous paragraphs as well as the relevant literature, insufficient alignment of academic development with professional needs was perceived to be a contributing factor to the difficulties educators faced in their blended teaching practice (see Chapter 2). This is not to suggest that they trivialised PD; on the contrary, most educators agreed with research claims that PD is necessary to achieve effective blended teaching practice (Cramp, 2015; Torrisi-Steele, 2018; Torrisi-Steele & Drew, 2013). However, there was an overwhelming consensus by both VET and HE educators that it has to be directly relevant; PD that is 'peripheral' to their needs (E. Smith, 2019) was identified as a key barrier to educators' interest in and attendance at PD sessions. One explained his viewpoint:

> *You know, it doesn't sound like it's really academic development, or professional development either for that matter. It's teaching. You know, how they're developing us is as academics unless you're teaching us to be researchers, that's where the emphasis in our careers is.*

Considering this and other similar remarks alluding to what I have already discussed as the ubiquitous issues of time constraints and workloads, it was predictable that a number of participants remarked that PD was not high on their list of priorities. They attributed this to the unfortunate trend of the central learning and teaching unit and Faculty Heads to frequently "*promote and even mandate*" the least preferred types of PD (e.g., technology workshops). At the same time, other more valuable types of development (e.g., one-on-one and mentoring) were not seen to be supported by management in an official capacity. The extremely high preference for these types of PD was also evident in the quantitative data with advice from colleagues (i.e., mentoring) considered to be by far the most useful PD, followed by one-on-one training (see description of data, Figure 10, Chapter 4).

One-on-one individual support

Educators' viewpoints

Validating interviewees' responses to opinions about the most useful forms of PD in the quantitative survey (Figures 10 and 11, Chapter 4), the common practice of mentoring or 'colleague support' was identified by educators from both the VET and HE sectors as the most useful form of PD due to its 'just in time' value and relevance. As a *"seriously time-poor"* HE senior lecturer explained, *"If I need support or there's a new tech tool or whatever that will add efficiencies, there's usually some bright spark I can ask."* Colleagues, educators claimed, were in situ, readily available, and usually well positioned to assess the potential value and relevance of technological tools. A VET teacher made a similar comment in relation to the introduction of new technological tools: "[*Name]'s the go-to person in our department. I just nab him between classes, and he gives me a demo there and then. Easy."*

It was understandable that educators in this study valued colleague support as a powerful form of PD. Perhaps their enthusiasm lay in a perception that they received more professional empathy from like-minded colleagues than from ADs, a suggestion endorsed by Pilkington's (2019) view that mentoring offers rich opportunities for developing empathy and establishing a culture of shared learning. Furthermore, educators felt strongly that their busy academic workloads precluded formal PD timetables but allowed for spontaneous sessions, particularly if in a context of 'social practice' (Boud & Brew, 2013). As one HE educator explained, *"it's easy just to knock on the next door or bale someone up in the kitchen."* Loads and Campbell (2015) also gave examples of this, describing the merits of academic development that occurred "over coffee and cake [where] they debated and discussed ideas and issues with easy confidence, mutual understanding and with conviction, passion, and lots of laughter" (p.355).

Despite the body of research defending educators' preferences for 'colleague-centred,' mentoring PD, this was a prime example of what appeared to be a misalignment between the priorities of the educators and the university's academic development agenda. Several factors could account for this: firstly, from a logistical point of view, it would be difficult for even the best funded institution to source this type of individual support, although Renshaw and Hollan (2013, p.3) discuss the opportunities provided by the process of seconded positions to supply best-practice and effective professional development. Other

researchers make a number of recommendations that experiential and relational learning should be integrated into staff development programs and that PD arising naturally in the workplace is an effective way to change ways of thinking, disrupt old habits and provide imperatives to learn (Loads & Campbell, 2015, p.356). Yet in this study, one educator declared that support for this kind of PD was "*not even on the radar*" in her departmental strategy, although it was encouraged on an informal basis, *"especially if a new tech tool's flavour of the month."* A colleague clarified this comment by adding,

> *They're fine with us tapping someone on the shoulder or including a demo about a new tool in a departmental meeting. Until we ask for something like time release to upskill, or funds for a software license. Then they don't want to know about it.*

Academic developers' viewpoints

Other plausible explanations as to why the misalignment may have occurred in this university could be attributed, perhaps surprisingly, to the negative influence of ADs themselves. They were well aware of the general enthusiasm of educators for colleague support: *"We hear about it all the time…they feel they have a better understanding of what they need than we do."* However, several felt that this was not necessarily always effective or even useful; they listed provisos such as the level of technical skills of the said colleague, *"[being] self-assessed, they're not always accurate,"* ability to train effectively, institutional knowledge, and as privacy and licensing regulations around software about which educators were, as one AD observed, *"often clueless."* Nevertheless, the ADs were sympathetic to educators' complaints about the absence of teacher agency (as well as their own voice) in developing PD plans and were concerned that educators' opinions and wishes were neither acknowledged nor sought – even to the extent of just *"paying lip service to [PD] evaluations,"* as discussed in Chapter 5. On this point, if not in relation to their dissenting views on *types* of appropriate academic development, they were supportive of the educator cohort.

A final concern that arose from the identification of colleague support as the most effective and popular form of PD was that ADs were generally not convinced that educators' perceptions were what they needed, *"they don't know what they don't know."* Sometimes, for example, educators argued for, and indeed insisted on, technical support rather than assistance with an unacknowledged pedagogical problem. In other instances, they were

seen to be automatically dismissive of the idea of most alternative modes of PD, even if they might potentially meet their expectations of relevance, short duration and being 'targeted to their needs' (O'Brien, 2015; Torrisi-Steele, 2018; Torrisi-Steele & Drew, 2013). This reinforces the crucial point made by Torrisi-Steele (2018, p.195) that the emphasis of PD should be a focus on pedagogy rather than technology, "framed first and foremost from the perspective of teaching practice, and the strategies that can lead to transformation of that practice."

Academic developers largely disagreed with educators' convictions that educators gained more from individual support than from any other type of PD, arguing rather that broader, more collegial exposure to academic development was preferable. There were some interesting tensions between the literature and AD views on this theme. On the one hand, Boud and Brew (2013) believe that it is necessary for academics to have an understanding of the university as a whole although this is not always possible in a busy work environment. Poole, Iqbal, and Verwoord (2019) agree, warning that the pattern of academics talking to like-minded colleagues may even narrow their views and thus limit opportunities for them to learn new and different academic practices. On the other hand, both believed that individualised support offered an opportunity for academic developers to track educators' interests and foster relationships with them.

Torrisi-Steele (2018) took the theme of individualised support further, suggesting that it should be integral, rather than separate to other PD activities and that 'point of delivery support' should be strongly linked to academics' blended teaching practices (p.194). Although I did not pursue this topic with AD interviewees, it seems unlikely that they would agree that it is their responsibility to integrate informal one-on-one support into their PD plans. However, the recommendation in this study that they gather information about academics' current practice during PD workshops might, I think, resonate more with the academic developers in this study provided that more robust systems were in place to achieve this. This is discussed below.

Workshop support

Educators' viewpoints

Confirmed by the literature as the most common type of academic development offered (see Chapters 2 and 5), a number of educators in this study had definite opinions about the advantages and disadvantages of workshops. Dividing them into 'LMS' and 'non-LMS' sessions, in the same way as they applied these categories to technological tools, they mostly accepted the Blackboard PD sessions because the LMS had become such an integral part of their academic lives. However, educators were particularly vocal on the point of workshops about new technology. Echoing comments made on this theme, one HE educator assured me he didn't need training for anything new and that he could manage on his own:

> *Yeah, you know, it's pretty easy. You know, you want to break up a lecture, it's difficult to keep students' attention even, you know, I think I'm a pretty engaging lecturer, I don't really use notes, I tell stories and try and, put some passion and enthusiasm into it. But even then, you need to break stuff up so, you know, I'll use YouTube clips or, whatever, just to change the tempo a bit and, reset.*

Apart from the research issue mentioned previously, the most common justification for lack of interest in academic development returned to lack of time but, in this case in regard to lack of time to practise what might be learnt in workshops. One educator claimed that *"you learn about some tool and then go back to your office and forget all about it."* Research supports educators on this point, pointing out that 'busy-ness' at work does not always allow space, distance and time for reflection (see Chapter 2, *Literature Review).* This was supported by the quantitative data which illustrated time to upskill as the most important factor enabling technology with face-to-face teaching (Figure 11, Chapter 4). This data showed that although PD was also considered to be important, educators were undecided about how useful they considered it to be in their face-to-face teaching (42 out of 94 respondents thought it was 'very important', compared with 39 who believed it to be only 'somewhat important' and 13 who rated PD as 'not at all important'.)

Academic developers' viewpoints

Although ADs acknowledged that educators were time-poor, they were impatient with their failure to acknowledge that this problem was not unique to them, in that it probably affected everyone working in academia, particularly in "the parlous state of Australia's

higher education sector (Hil, 2012, p.19). Considering Hil's remarks about "inconsequential moans" (p.21) which echo the 'disgruntled academics' from Selwyn (2013a), it was not surprising that ADs were even more critical of educators in regard to what they believed to be irrelevant content of PD sessions. Tensions between the two cohorts were clear around this issue. One AD provided an example of a common scenario with workshops:

> *OK. They come to a workshop for LMS support. They're bored, think they're fine with all that's covered…it's intuitive they tell me…they know all this already. Then two weeks later they find about some tool or function or whatever and decide that might be useful to their teaching. So then they suddenly know what they didn't know. And guess what? They want one-on-one support. Right now.*

Similarly, a colleague objected to a sessional lecturer who frequently used a hot desk in the central learning and teaching unit. Although this educator's habit was to constantly ask basic Blackboard questions the AD observed that, *"Naturally, she's conspicuous by her absence at elementary blackboard training PD sessions though, isn't she…it does my head in!"* the AD remarked. She noted the irony of this case, providing a further example of the tensions between the two groups, especially in regard to their respective expectations of academic development and perceptions of what support was reasonable and sustainable.

Educators' viewpoints

An interesting finding was that several interviewees' comments about inapposite tools that were introduced into workshops morphed into wider pedagogical debates which educators appeared to take very seriously. One busy course convenor gave an example of having to attend an LMS session about student analytics:

> *The whole concept of learning analytics is an absolute bloody anathema to me. They sell it as a tool to map student personal learning paths, but it's actually really about retention rates. As usual, the uni is focusing more on fiscal policies than pedagogy. Oh, and marketing. Don't forget marketing.*

It was clear from this participant's scathing remarks that there had been no teacher input (at least at his academic level) into the planning, let alone the trial implementation, of this learning analytics tool; moreover, he clearly felt that learning analytics would not measure what the university purported it would (Selwyn, 2016b, p. 47). This educator's concern that technology was more about marketing and '*bums on seats*' policies (Lynch, Walker-Gibbs, & Herbert, 2015), appears to be a common perception; for example, Hil (2012) quoted

several interviewees who had made similar observations: "universities are all about the brand, mate" and "sometimes it feels as if we're all working in a supermarket (p.47).

It was not surprising that the academic quoted above resented the 'so-called voluntary' training he had attended for the learning analytics tool. In terms of the question of alignment between LMS workshops and educators' needs and wishes, this was a pertinent example of actual PD content, rather than what Hil (2012, p. 21) referred to as "venting of collective spleens" not matching educators' individual teaching and learning philosophies. Whether the university's managers in this study were aware of staff dissatisfaction about academic development plans is not known. However, as educators' comments implied that much of the complaining occurred informally 'over coffee catch ups or in the lunchroom', it is likely that their opinions did not reach higher levels. As one HE lecturer with many years' experience across a number of institutions inquired, *"Who's going to stick their head above the parapet? Not me, that's for bloody sure!"*

Formal graduate teaching programs

Educators' perspectives

A final type of academic development in which tensions emerged between participants in this study and the literature, related to the university's graduate learning and teaching qualification. This was seen by many educators as being heavily marketed externally and worse, promulgated internally, with the university increasingly 'putting the pressure on' them to complete the qualification. Notwithstanding the fact that most HE interviewees did not possess formal teaching qualifications, there was little indication that they considered this as a barrier to their teaching; they firmly believed that they did not need this type of teacher training. Some of the literature regarding the impact of graduate teaching programs on educators validates the educators' opinions. Whilst early studies such as one by Coffey and Gibbs (2000) claimed that such formal training programs led to more enthusiastic and skilled teachers who created 'an enhanced departmental ethos of quality teaching', there appears to be little documented evidence of lasting impact of formal programs on teaching. On the contrary, Barber, Donnelly, Rizvi, and Summers (2013) claimed that little curriculum change was affected by such programs. Furthermore, according to Knapper (2016), if transformative change in teaching and learning did occur, it was almost always after some radical institutional change which, incidentally, was not

initiated by central development units. Subsequently 'momentum and enthusiasm' engendered in such programs diminished over time with what Knapper (2016, p.110) described as "recidivism to the traditional" where little change in the curriculum occurred (Barber et al., 2013).

Perhaps the apparent misalignment of graduate teaching programs with perceived needs of HE educators can be partly explained by their shared views of themselves not primarily as teachers, but rather as qualified research academics which one described as "*a different kind of credential.*" Not all HE educators in this study were dismissive of the value of the 'Grad Cert' itself; indeed, there were a number of comments (albeit mostly from non-participants) about how it might be of potential benefit: one lecturer thought that "*if the emphasis isn't so much in technology, if it's say about different styles of learning and, intrinsic and extrinsic motivations. I'm like, oh, okay, alright, so that makes sense.*" Another thought resources about rubrics might be of value: "*So when I'm designing assessment, or whatever, just stuff that I've got to do anyway, it gives me a bit more depth of knowledge to draw on which could be really useful.*" Nevertheless, most educators tended to believe in the benefits of the 'Grad Cert' in theory rather than in practice because of a prevailing perception that even though the university 'ticked the boxes' with teaching awards and citations, teaching excellence did not lead to actual promotion. From a career point of view, therefore, educators could see little point in enrolling in such a graduate course despite institutional rhetoric around professional practice and the value placed on feedback from student evaluation surveys (Denial & Hoppe, 2012).

An interesting point here was that, according to one educator, the university had attempted to mitigate the 'time' issue by offering what he described as "*a generous allocation of 50 hours.*" Even so, most of the academics had no intention of enrolling in the course unless, as one lecturer pondered it was for personal gain, "*it might be worth it if it gets me out of some tutes [tutorials].*" One wonders whether the university, even with the best of intentions, could have engendered any excitement for this type of PD amongst this cohort and if not, what other extrinsic factors may have contributed to their reluctance to participate.

The data from the quantitative survey indicated at least a measure of indifference by educators when they were asked to rate the usefulness of formal programs. As shown in Figure 10 (Chapter 4), 54 out of 90 participants believed such programs to be 'somewhat useful,' but only 19 considered them to be 'very useful' while almost the same number (17) thought they were 'not at all useful." It may, of course, be argued that the survey respondents did not interpret formal programs as graduate teaching programs and that there were other possibilities. However, two open text comments indicated that they may indeed have understood formal programs to mean official university courses in this question about the usefulness of types of PD: "*I'd do a teaching course but don't have time for our Grad Dip"; "Can't be fagged investing in the Grad Cert … can't see the point.*"

In any case, what was clear and strongly endorsed in the literature was a prevailing sense that the 'Grad Cert' and other teaching related activities offered across HE sectors for professional recognition were viewed as less important than research (Fung & Gordon, 2016; Spowart et al., 2019). Similarly, the few VET educators who mentioned their compulsory Certificate IV (i.e., VET-sector and competency-based) qualification did not see it as useful for their teaching. This opinion was supported by Wheelahan and Moodie (2011) who claimed that if the Cert IV TAE is to be recognised as suitable in preparing educators for the complex job of teaching in VET, more emphasis should be placed on "teaching, pedagogy, how people learn, and student diversity and inclusiveness" (p.35). These researchers also recommended more training and experience for teacher/trainers of the course, reflecting a statement made by E. Smith and Keating (2003) over a decade ago that these programs were not well delivered.

Academic developers' perspectives

Most ADs interviewed were sceptical about academics' claims of equivalent credentials to those of qualified teachers but were aware of this viewpoint. One stated that,

> *The rigour required to complete a PhD is their [i.e., academics'] measure of credibility and status. They totally miss the point of course that this doesn't make them teachers, but yeah, you're always going to be underqualified to them.*

An incongruous point emerged around the theme of formal teacher training in relation to ADs in this study. Although they were extremely vocal about HE educators' inadequacies as teaching practitioners - "*they know nothing about philosophies of teaching;" "academics*

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haven't got a clue about teaching methods" and *"they see teaching as a distraction from their research,"* there was no great enthusiasm from this cohort about the efficacy of the formal teacher training program either. This is in direct contrast to research such as that carried out by Knapper (2016) who claimed that educational developers are largely responsible for the development of these programs. A further study stated that ADs had a responsibility to act as 'catalysts' in this domain, although the authors highlighted a number of paradoxes and tensions that they believed prevented a significant focus on the scholarship of teaching and learning in academic development (van Hattum-Janssen, Morgado, & Vieira, 2012). Predictably, these issues were reported as institutional barriers which were similar to those described by participants in this study (e.g., management and systemic problems, workload issues etc.) They did not, however, include a lack of interest amongst ADs which appeared to largely define this cohort.

Although I was unable to identify contributing factors to ADs' lack of enthusiasm for the 'Grad Cert' in this study, there are several plausible suggestions as to why the course was simply not viewed as integral to (or even on the agenda of) their development plans. Firstly, it is reasonable to suggest that as practitioners they were concerned by what they saw as an overemphasis on theory which might not adequately fill a gap in a 'qualification void' or upskill academics with appropriate teaching tools. Secondly, perhaps because most were apparently considered to be insufficiently qualified to teach into the program, they felt slighted and undervalued: *"we're only the minions, they wouldn't trust us with pedagogy."* As discussed previously, although several ADs possessed PhDs, they were similarly overlooked and were presumably included in the general cohort of those who had 'lesser' qualifications. It appears then that even these 'academics by definition' did not fulfil the requirements for teaching the course in other ways, presumably because of their employment status, among other unidentified reasons. Whatever the cause, the lack of AD's interest in, and even in some cases tacit disapproval of the 'Grad Cert' may have contributed, at least indirectly, to educators' feelings of indifference about this type of academic development. Although increasing numbers of researchers have explored the connection between ADs and academic teaching staff (Fyffe, 2018; Ritzhaupt & Kumar, 2015), I was unable to locate any literature around possible tensions and the nature of relationships between ADs and academics teaching in the specific field of formal teacher training programs.

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The Dual Sector Dichotomy

While there were some commonalities with the HE sector relating to the theme of academic development, there were also a number of differences. Firstly, although much of the discussion in previous paragraphs in this chapter relates more specifically to HE rather than VET educators, there is no suggestion that academic development was a less controversial topic in the VET sector.

Perceived differences in VET and HE roles

A number of tensions between the two groups arose around this theme. Presumably because they did not have to manage ambiguity around the workload models balancing teaching and research typical of the HE sector, VET educators seemed to view their role clearly as teachers, and they were clearly proud of what they enthusiastically described as their unique skill sets and experience. On the other hand, some HE educators believed that vocational and tertiary education was merely about trades and its teachers were, therefore, in some way inferior to their lofty academic status. Several others seemed to be more aware of the concept of 'authentic learning' taking place in the VET sector, although there was a general feeling that the division between the pedagogical aims was clear. As one academic stated:

> *In TAFE, they teach skills for the workplace. In Higher Ed, we teach concepts. If someone wants to be a psychologist, I'd send them to TAFE. If they want to know what Psychology is, then they belong here.*

Logically, these stereotypical views made academic development complicated. One AD complained that the two cohorts needed separate training, stating that *"we add a bit more pedagogy to HE groups and concentrate on applications in VET."* Often though, due to the logistics of the PD session it was *"a mixed bag"* which inevitably caused problems. Also, when PD sessions were categorised as either HE or VET, ADs were frequently accused of discrimination which put them, they claimed, in an invidious position. This was highlighted by the one VET teacher I interviewed who had completed a subject in the Grad Cert discussed previously. This educator was highly aggrieved by the content which she described as *"purely Higher Ed focused…taught by academics who clearly had no idea about what VET teachers are about."* This is supported by E. Smith (2015) who also reported complaints about lack of specific VET content in higher level university qualifications.

Knapper (2016, p.112), discussing issues around transfer of learning, claims that educational developers must now focus on the *what* rather than the *how* of curriculum and teaching, thereby assuming a role of process rather than content experts. In this way ADs can help ensure that academic development programs cater for the needs of graduates in a rapidly changing workplace. Although this study relates to Higher Education faculties, the "formidable challenge for universities wishing to prepare students who can transfer knowledge, skills, and values to new and evolving situations" (p.112) which he highlights is relevant to all subject matter. Therefore, one could argue that ADs' conceptions of the traditional, stereotypical dichotomy between theory/concept- based HE curriculum and fact/practice- based VET courses, needs to shift if ADs are to "accomplish the far-reaching transformation of teaching that most developers would see as necessary" (p.113).

Approaches to academic development

In contrast to some literature that suggests that VET educators' conceptions and approaches to blended learning are similar to those of HE academics, while in loose agreement with HE participants (with the exception of a few who appeared to have at least a 'tokenised' broader view of academic development), none of the VET teachers interviewed interpreted the concept of academic development as anything more than professional development related to technology. Several differences were apparent between the two cohorts in relation to approaches to 'training' which was the common term for academic and professional development.

All VET educators interviewed agreed with their HE counterparts that training was important to successful blended teaching as long as it was relevant. Their definition of 'relevance,' however, deviated somewhat from that of HE educators. First of all, training needed to specifically address a perceived gap in their teaching practice, a factor which was not seen as so important to HE educators who, by their own admission, usually failed to give this much thought. Secondly, not only did a new technological tool need to be appropriate to them, it also had to be sustainable within their own departments, where most of their academic development took place. Once these conditions were met, VET teachers appeared to show a greater acceptance of PD opportunities.

In view of the value VET educators placed on 'in-house' training, it was to be expected that they would prioritise one-on-one mentoring support as did the HE cohort. As with the definitions mentioned above, however, their reasons for this PD preference differed to their HE counterparts. One VET teacher mentioned the many early adopters in his sector who willingly assumed mentoring roles. In this sense, individual on-site support was, as one Trades teacher described it, *"a kind of needs-based reaction"* to the number of sessional teachers, particularly those with low digital literacy skills. With little understanding of the potential of technology in teaching, and limited experience with using tools in the classroom, these educators could arguably best be supported by their more digitally sophisticated colleagues who could contextualise their needs. While not explicitly stated, there was an implication that ADs sometimes lacked the skills to train VET teachers, with one explaining that they *"don't understand that we're special... not one size fits all, like Higher Ed wankers."* In a recent study into VET teachers and their ability to keep up with industrial and pedagogical trends, E. Smith (2019) found similar attitudes amongst her participants who had to deal with the changes in patterns of PD brought by technology. E. Smith (2019) points out that the transition from 'tradition to modernity' (p.8), where PD is not viewed in the VET sector as 'wasted' or 'peripheral' to their needs, is a challenge for those responsible for PD of VET teachers.

Technology adoption and academic development

Exploring the tensions between these two groups further, the approach of VET participants also differed from HE educators in that they made what seemed to be more practical and informed decisions around technology adoption. As discussed in Chapter 5, *Educators' use of Technolog*y, this could be attributed to the VET pressures of compliance and perceived inadequacies of the LMS which was the most common form of professional development offered in this dual sector university. According to interview comments from both cohorts, it is also reasonable to assume that these VET educators were more focused on teaching outcomes from technology than their clearly more research-minded, possibly somewhat distracted, and apparently less interested HE counterparts. In support of this assumption, an early study by R. Macdonald (2009) explained that, historically, academic development in polytechnic institutions in the United Kingdom was more embedded than in the higher education sector because in the polytechnical area learning and teaching were afforded higher priority and a tradition for academic development underpinned by this had been

established. This may arguably be the case in Australia, although as it is not within the scope of this study, such a claim cannot be made.

The research versus teaching dilemma

Whilst the rapidly developing field of 'scholarly teaching and learning' (SOTL) in regard to impactful academic development is beyond the scope of this research, it was alluded to in interviews with educators from both the HE and VET sectors which, as with most of the themes covered in this section, revealed a number of notable tensions between the two cohorts.

Predictably, several HE educators referred to 'scholarship' in interview comments about research commitments which included pressure placed on them to apply for grants and meet institutional or faculty publishing requirements and deadlines. Usually these were complaints related to lack of time which, as discussed throughout this chapter, largely informed their preconceptions about the value or otherwise of academic development. VET educators, on the other hand, displayed little interest in either reading or writing research papers, and made no apologies for their lack of scholarly approach. This was highlighted by one VET teacher who proudly explained an innovation he had introduced into a Trades subject. The coordinator of a related HE course wanted to adopt this technology and took the apparently *"highly unusual step"* of approaching the VET innovator:

> He wanted to know what I'd written about it, where the research evidence
> was. The snooty bugger couldn't believe that we'd just done it, without what
> he considered to be due [academic] process. He was blown away by that.

An AD made a similar comment about a 'challenging' professional development session she had conducted on a new tool, stating that,

> HE academics always ask for the literature to support it… do you have any
> relevant papers on that? VET teachers never do. They look, listen, and then if
> you're lucky they go away and play with it.

There was an exception to this with one VET educator who expressed dissatisfaction with what he deplored as *"a lack of scholarly curiosity"* in the VET culture which he viewed as narrow-minded and complacent, where teachers were reportedly neither interested in, nor even aware of *"proper, rigorous theories underpinning teaching."* This educator appeared

to be an outlier in what appeared to be an otherwise extremely cohesive group. I interpreted his later interview comments as indicative perhaps of a sense of professional identity which was less ingrained than in most VET participants. He appeared to be generally disillusioned by his workplace and claimed that he would have liked more access to professional development around pedagogy from an academic perspective: *"For example, the word pedagogy. You don't use that word at TAFE, you practise it and you have got to kind of sneak it around the back. You can't just say it."* This was confirmed by a colleague who had a clear disregard for ADs who used *"bullshit language"* in their PD sessions: *"When they start talking about scaffolding and hurdles, I'm outta there. I just switch off."*

Educator compliance and academic development

Background to the concept of educators' compliance

Many case studies abound in the literature that describe frameworks and thoughtful institutional decisions around selection of technological tools for blended teaching and course design and the most widely accepted of these are discussed in Chapter 2*.* The importance of targeted use of technology was also evident in the qualitative survey (Figure 11, Chapter 4), where the majority of educators agreed to either a moderate or extreme extent that they used technology in a focused and deliberate way - i.e., to achieve course outcomes (81%), to align with core content and concepts (90%) and to supplement, enhance and enrich students' learning (90%, 81% and 78% respectively). Such rigorous, pedagogically focused institutional approaches to technology strategy were not always supported by this study, however, in which there appeared to be a shared perception that the university's priority was more about "*apparently doing what everyone else is doing*" or "*being seen to keep up with other universities*" than pedagogy.

The common complaint by both educators and academic developers that technology adoption is largely a matter of 'keeping up with the Joneses,' can be seen as an institutional barrier to the effective use of technology in teaching. This may result, as the qualitative data in this study illustrated, in both educators and academic developers second-guessing their pedagogical knowledge (or, in regard to ADs, technical and training expertise) which, in turn, undermines their willingness to dispute, or even question management decisions.

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It seems that this problem has changed little in over two decades when Martinko, Zmud, and Henry (1996, p.316) asserted that "people react in accordance with cues in their environment, particularly if those cues come from superiors or co-workers held in high esteem." Martinko et al. (1996), elaborating on this point, categorised a number of reactive elements, described as 'behaviour' and 'affect' which, they claimed impacted the efficacy and outcomes of the introduction of technologies in the workplace. These reactions are listed in Table 21 below. The list was included by these researchers as part of their 'attributional model of reactions to information technologies (AMRIT).'

Reactions	
Behaviour	Affect
Acceptance	Satisfaction
Resistance	Self-Esteem
• active	Hostility
• passive	Anger
Reactance	Stress
	Fear
	Apprehension
	Anxiety

Table 21: Reactions of behaviour and affect (adapted from Martinko, et.al (1996, p.316)

The AMRIT model prompted me to investigate the attitudes and behaviours that educators in this study showed in regard to their acceptance of technology, their approach to academic development activities and how the efficacy of PD influences their blended teaching practice. The question then arose as to, firstly, why educators behave the way they do in PD sessions and, secondly, what ADs can do to mitigate negative behaviours and attitudes and reinforce positive ones so that learning can take place.

Much of the qualitative data echoed the tendency mentioned by Selwyn (2017) previously for educators to 'just get on with' technology, rather than to engage with the various tools and to use them purposefully. This was illustrated by examples in Chapter 5 in relation to educators' use of Echo 360 which, according to both the qualitative data and comments in the quantitative survey was primarily used merely to 'tick the box'. The use of such tools,

without the critical engagement deemed necessary to impact student learning, may result in what Friedman et al. (2009) interpreted as a culture of inertia and dishonesty which is of ultimately little value to either educators or students who may be effectively 'lost in transaction.'

The culture described above may create what Friedman et al. (2009, p.265), called "mindless buy-out." Both the qualitative and quantitative data in this study confirms that this term may accurately apply to some educators' dispositions in that they refuse to support, accept or willingly participate in PD sessions. However, the issue is more complex than Friedman et al.'s interpretation. Firstly, as shown in the AD's example of a lecturer's deliberate manipulation (and 'sabotage') of the Echo360 online lectures (Chapter 5), I would argue that 'buy out' is not always mindless but is, in fact, often a deliberate choice. Secondly, while most educators comply with institutional expectations in regard to PD, it is clear that the degree and nature of compliance varies between individual educators, faculties and indeed sectors.

Types of educators' compliance to academic development

A review of the qualitative interview data revealed three different categories which represent levels or degrees of compliance and are illustrated in Tables 23, 24 and 25. The tables were compiled from comments made by educators (and, in one case in Category 3, an AD) in response to questions about academic development. Most comments in categories 1 and 3 were from the HE sector. Where a VET educator or an AD is represented, this is mentioned in brackets after the respective quotation.

Category 1: Comments

- *The last workshop I went to was about workarounds to wikis which apparently aren't going to work in our new LMS as they did in Blackboard. I never use them anyway, so it was double Dutch to me. But I did come away thinking about other possibilities for assessment (VET).*

- *I usually go to a small group workshop if I'm short on PD hours. I never have time to follow-up if there's a new tool or whatever, but I can see the merit in some. Like Collaborate Ultra. Looks good in theory. I might try it one day. Or not.*

- *My last compulsory PD was at the [name of city campus] which is miles away from [name of outer-suburban campus]. So it took pretty much the whole day. Good lunch. Some interesting stuff around 'plugins' whatever the hell they are (VET).*

Table 22: Category 1 compliance comments

Comments such as these included in Table 22 above were common in tone. These interviewees were all in the same situation as those in Category 1 in that the PD sessions they attended were reportedly compulsory, either as a directive following a faculty or departmental meeting - usually in relation to new technology strategies - or to meet the university's PDP (Performance and Development Process) plans. It can be assumed that although these educators did not achieve the desired learning outcomes of the respective PD activities, some learning occurred and there was some degree of interest in the PD content. It was interesting that two of the three comments that best illustrated the dispositions of educators in Category 2 were from VET participants. The differences in attitude to and behaviour of academic development in general between HE and VET are mentioned briefly previously in this chapter and are summed up in Chapter 7, *Conclusion*. Literature on this is scarce and the topic would be worthy of further research.

Category 2: Comments
• *I turn up and try to ask the odd question... sometimes I get caught out if it's really irrelevant or if they've moved on. I can usually bluff it though...no one says anything. I give positive feedback which no one acts on anyway.*
• *I wait until someone important has seen me, then p*** off. Usually with a muffin if I'm lucky. Compensation for wasting my time. That's pretty common. Yep, sign the attendance list, although I'm not sure where that ends up. Probably in the ether.*
• *If I sit at a back table and turn my laptop round to the face the wall, I can check emails. That only works if it's a Blackboard workshop though. The last one was. Portfolios. The dude [Learning Designer] didn't even know I wasn't looking at it.*

Table 23: Category 2 compliance comments

Comments in relation to PD such as those listed in Table 23 above represented the most frequent type of compliance. These educators attended workshops because they were compulsory. This mandatory attendance in turn made them resentful, a typical reaction as

discussed earlier in this chapter and validated by the literature (See Chapter 2). These educators made no attempt to engage - their aim was merely to meet departmental expectations causing disruption. None of them mentioned 'learning' or positive outcomes of any kind.

Category 3: Comments
• *It was farcical. We had a workshop where we had to design an innovative learning space with smarties[3]. Can you believe that? Like in a Prep class. My group was distracted because everyone ate the smarties. The woman [Learning Designer] was not happy Jan[4].*
• *My last PD was actually fun. We had green post-it notes to attach leaves on a learning tree or something. You can make Ninja stars out of post- its. Bet you didn't know that. Someone's grandson taught him. We thought they made awesome leaves. Not sure [name of trainer] agreed, although she did have a laugh.*
• *I had a lecturer in one of my workshops who was just plain bloody-minded. Know what he did? He wore black socks with "This is bulls***" emblazoned on the front. Every time I went near him, he crossed his ankles and leant back to make sure I noticed. He was vile (AD).*

Table 24: Category 3 compliance comments

Fortunately for the University community (and especially the AD cohort), this type of response from HE educators was less common than those represented in categories 1 and 2. However, it was by no means rare and, when evident, it was usually accompanied by varying degrees of anger and even hostility. These emotions were palpable which was obvious from an observation from the AD interviewed above who described the black-socked lecturer in her workshop as "vile" and "plain bloody-minded." Notably, humour was also sometimes present in the cynical comments about the learning tree with the "Ninja stars" and in the "fun" workshop with the group who ate the smarties. This was typical of these comments, although understandably the humour was usually perceived as such by the educators rather than most of the ADs facilitating the various workshops. There was

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[3] Smarties are a type of multi-coloured chocolate covered confectionary

[4] "Not happy, Jan" was a line delivered in an Australian TV advertisement in 2000. It was an instant hit and the phrase has since entered the cultural vernacular to express discontentment. https://en.wikipedia.org/wiki/Not_happy,_Jan!

one exception to this, however, with an older AD with many years' experience who remarked,

> *It's actually entertaining sometimes when they take the mickey out of you or bag Blackboard. It breaks up the session and relieves the boredom, to be honest. This is anonymous right? I wouldn't say that out loud. I'm getting past it, maybe!*

Definition of compliance categories

A further investigation of the comments made by educators around the theme of compliance led me a definition of the three categories illustrated in Tables 22, 23 and 24. The derivation of Category 1 is described below, whereas Category 2 and Category 3 arose from common definitions and the colloquial use of the terms 'begrudging' and 'subversive'. The choice of these three adjectives was also underpinned by the detailed discussion on Academic Development in this chapter as well as by the available literature, as reviewed in Chapter 2.

Category 1: Active compliance

Active compliance is a type of compliance where educators conform to everyday institutional norms, expectations and restrictions. Participation to varying degrees is evident, but only within the parameters of educators' evaluation of either mandated or personal pedagogy (Friedman et al., 2009, p.254). Used frequently in disciplines such as robotics (Sadun, Jalani, & Sukor, 2016) and social psychology (Karakostas & Zizzo, 2016), 'active compliance' is defined in simplistic terms as a type of compliance that aims to improve processes (such as the processes of learning and teaching) while still conforming to everyday norms (institutional expectations and restrictions). While there appears to be no studies related to the direct application of 'active compliance' to the field of education, I believe it is a useful lens through which to view educators and their blended teaching practice.

Category 2: Begrudging compliance

Begrudging compliance is a type of compliance where educators conform to everyday institutional norms, expectations and restrictions, albeit reluctantly and without thoughtful evaluation of mandated or personal pedagogy (Friedman et al., 2009, p.254). Dispositions such as resentment and cynicism may be evident as shown in Table 23, and as revealed in both the quantitative and qualitative data.

Category 3: Subversive compliance

Subversive compliance is a type of recalcitrant compliance that subverts processes and undermines collaboration and autonomy. Educators may still conform to everyday institutional norms, expectations and restrictions, albeit with feelings of powerlessness, fear, anger, humour and, in some cases, hostility. Subversive compliance can be perceived as the most dysfunctional kind of compliance, and the literature suggests that it can lead to dysfunctional conflict which, in turn, results in a decline in communication within the culture (Rahim, 2017).

A Typology of Academic Compliance

To provide some further insights into the complex theme of academic development and the way in which educators approach and behave in relation to the theme of academic development, I have developed a model in the form of a typology. I selected this due to the reputation of a typology as a well-established, valuable analytical tool in social sciences research (Collier, LaPorte, & Seawright, 2012; Given, 2008; Nastasi, Hitchcock & Brown, 2010). There is some disagreement in the literature around the useful of typologies. For example, Maxwell and Loomis (2003) were critical of the use of typological design in qualitative research, claiming that it is not appropriate because it attempts to establish in advance essential features or steps of a study. However, it is important to note here that I made no reference to typology in Chapter 3, *Research Methodology* or in Chapter 5, *Impact of Academic Development on Blended Teaching Practice.* The categories described in the ADCT were not in any way predetermined and are not considered to be either hierarchical or subsidiary to one another (Given, 2008). In my view, this typology is a good fit for the compliance categories which emerged as part of the thematic analysis and subsequent interview data presented in Chapter 3*.*

Based on the concept of the three levels of compliance as discussed in detail in this chapter, a graphical representation of the *Academic Development Compliance Typology (ADCT)* is presented below.

The Academic Development Compliance Typology (ADCT)

As discussed above, I decided on a typology to illustrate a model related to the theme 'impact of academic development on educators' blended teaching practice' in the HE and VET sectors.

I developed the ADCT first of all to provide an alternative perspective for academic developers who, I believe, tend to view educators' attitudes to, and behaviours in PD sessions from a deficit position. Secondly, and of equal importance, is the potential of the typology to explore the impact that academic development has on blended teaching practice. With the typology, I have engaged, not in theory testing, but rather in theory building, which as Whetten (1989) noted, is applicable when one asks the question 'what's new?' thereby specifically gauging the degree to which a researcher's contribution may change (or in this case, add to) current thinking.

Based on educators' interview comments, examples of compliance categories and how they may align with perceived degrees of engagement and learning are illustrated below. I considered 'engagement' in PD sessions to be inclusive of behavioural and emotional factors (Fredricks, Blumenfeld, & Paris, 2004); these factors may influence the degree to which educators invest in the learning that will enhance their blended teaching practice. It should be noted here that I do not assume that these are discrete categories; rather, they should be viewed as fluid, allowing the possibility of participants' movement between them. I have provided a summary of each case as it might relate to the ADCT. These cases are based on specific, verbatim individual examples of participant responses from the qualitative interviews. The first two instances ('active' and 'begrudging' compliance) were drawn from educators' comments, whilst the third, ('subversive' compliance), arose from an anecdotal conversation between an AD and an educator who had been *"told to attend an Echo360 demo, whether he liked it or not"*. Where appropriate, external and internal influencing factors are also included, as are my definitions of the respective types of compliance.

Explanation of the ADCT

The typology model shown in Figure 12 below comprises three boxes which represent the levels of compliance that were identified and described in Chapter 6: *active*, *begrudging* and *subversive* compliance. These categories are impacted by a number of internal and external factors. The list of extrinsic and intrinsic factors influencing educators' place in the respective compliance categories was also informed by the qualitative and quantitative data, as well as the earlier studies on the subject such as those carried out by researchers such as Martinko et al. (1996) with their AMRIT model and Bandura (1977) who carried out research on self-efficacy and outcome expectations defined as "a person's estimate that a given behaviour will lead to certain outcomes" (Bandura, 1977, p.193) which are crucial to the successful implementation of technology, in the same way as outcome expectations are (S. T. Meier, 1985). As discussed throughout this thesis, one would perhaps be justified in assuming that the situation regarding educators' unease with technology in teaching would have lessened over the years. After all, technology has presumably become not only an integral part of the educational landscape but also more intuitive. However, this does not appear to be the reality and the data in this study shows that these factors remain today. As one HE educator observed,

> *Technology fundamentally is also a relationship thing, it's the relationship between you and the technology, and we don't handle that well. We don't handle it in that we don't recognise that it's actually a relationship. Just as they can be barriers to a relationship, like something about the way I look reminds you of somebody from your past, and then that creates a barrier. There can be all sorts of stupid psychological things that create barriers between you and the technology.*

It was clear in the data and from the literature around the theme of compliance that the barriers mentioned by the above educator are prevalent and that much of the negatives and behaviour exhibited by people at academic development session are at least partly influenced by emotional baggage.

The compliance categories and the influencing factors are highlighted in Figure 12. I have suggested that potential learning in PD sessions may vary according to which category the educators' best fit into. It should be noted, however, that the categories were not designed

to be mutually exclusive, and it is assumed that educators will move between them, depending on the influence of internal and external factors at any given time.

The model as illustrated below is followed by explanations and examples of the respective compliance categories. These comprise brief vignettes from the interview data; they are all verbatim but due to space restrictions not all complete. The comments are accompanied by a summary for each participant in those three categories.

Diagrammatical Depiction of the Academic Development Typology
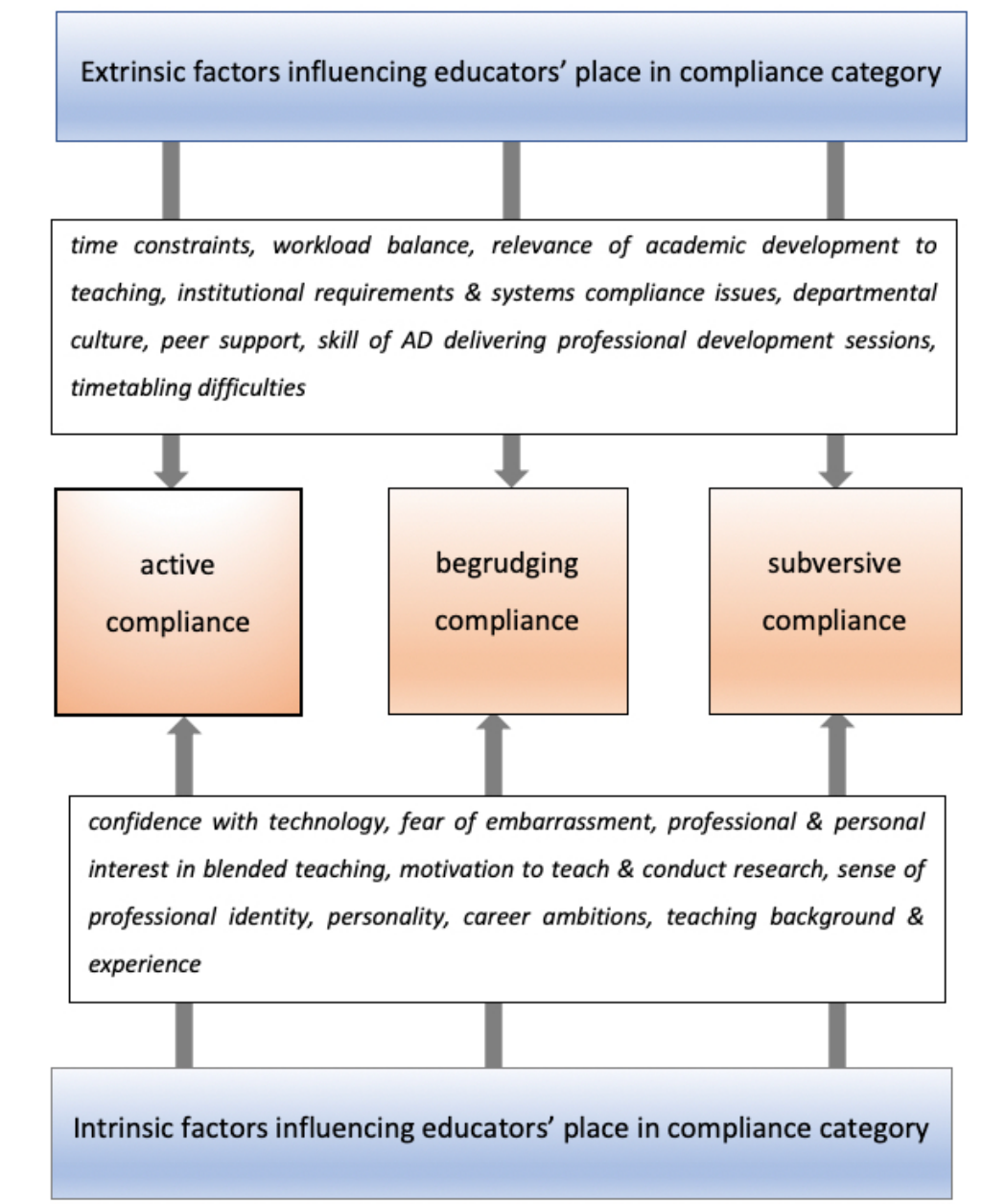
Figure 12: Academic Development Compliance Typology

The 3 categories illustrated in Figure 12 are defined below. They were adapted from a 2009 study by (Friedman et al., 2009), although as their study related to the secondary school system rather than higher education and to can be assumed that there are significant differences between the two cultures.

1. Active compliance: a type of compliance where educators conform to everyday institutional norms, expectations and restrictions. Participation to varying degrees is evident, but only within the parameters of educators' evaluation of either mandated or personal pedagogy (Friedman et al., 2009, p.254).

2. Begrudging compliance: a type of compliance where educators conform to everyday institutional norms, expectations and restrictions, albeit reluctantly and without thoughtful evaluation of mandated or personal pedagogy (Friedman et al., 2009, p.254) Dispositions such as resentment and cynicism may be evident.

3. Subversive compliance: a type of recalcitrant compliance that subverts processes and undermines collaboration and autonomy. Educators may still conform to everyday institutional norms, expectations and restrictions, albeit with feelings of powerlessness, possibly fear and anger and perhaps in some cases, humour Friedman et al. (2009, p.266) .

Educator 1 - active compliance

I don't mind workshops if they're relevant and not too drawn out. Usually, I can find something worthwhile in the PD I choose. I don't always use tools the way they're designed though. Sometimes I find a way that works better for me. Like Blackboard. [name of LMS support person] would have a heart attack if he could see what I've done in my Grade Centre.

engagement	learning	external factors	internal factors
medium-high	likely	time constraints, nature of PD sessions	Interest in technological tools, innovative, pragmatic

Figure 13: Example of active compliance

The educator represented in Figure 13 has made the most of the PD offered to him in pedagogical terms. Typical of this active compliance category, he selects what he believes to be most relevant and applies it to suit his needs. He is reasonably positive about academic development generally and would probably upskill quickly and easily if he chose to. His internal influencing factors have probably led to his placement in this category and probably include many years of teaching experience. External factors might have had minimal impact due to his pragmatic approach. Learning is likely to occur.

Educator 2 - begrudging compliance

I turn up to PD sessions to cover my back, really. We have to go to a certain number of things as part of our YPD which is fair enough, I guess. I try and pick something that I might be able to use, but a lot of the tools are not relevant or too time-consuming to get my head around. So I often don't bother following them up, although I'm seen to be pretty tech savvy.			
engagement	learning	external factors	internal factors
medium	possible	YPD plan compliance, time constraints, relevance of PD	Interest in tools, confidence with technology, flattered to be considered by others to have good technological skills

Figure 14: Example of begrudging compliance

Figure 14 illustrates an educator who was potentially open to suggestions in regard to new technological innovations. He accepted the university's requirements in regard to his YPD (personal development plan) which included some compulsory PD. He was not committed to integrating new technology, however, unless it was relevant, and he could upskill quickly. The external factor of relevance would influence this educator. If a session were to be more personalised he could move into active compliance where learning may occur.

Educator 3 - subversive compliance

[The educator] started doing this thing where with the video recording lectures, which were embedded in Blackboard, he would purposely leave certain things out and speak to the video recording, saying you'll only find this out if you come to the lecture. So he would walk away. He had a whole thing, you know, just to try and get more people to come.			
engagement	learning	external factors	internal factors
probably medium	high (skills) low (pedagogy)	examination week time pressures, mandatory attendance	lack of motivation, lack of agency, possibly not a sound grasp of blended learning concepts

Figure 15: Example of subversive compliance

The educator represented in Figure 15 was clearly disillusioned with the professional development he was required to attend. His perception that the PD was compulsory probably resulted in a lack of motivation to participate in a topic which he believed was irrelevant to his needs. Also, as highlighted in comments from disgruntled academics in Chapter 6, he may possibly have ignored information provided about the session. He participated and engaged sufficiently to gain at least a medium or even high level of skill about the tool, Echo360, and he was able to edit videos for what the AD humorously exaggerated as *"his own nefarious purposes."* Learning must, therefore, have occurred at this stage. Typically, with instances of subversive compliance, this educator used his time engaging in practices not related to, but rather distracting from the true purpose of the PD – in this case working about how to 'mess' with the tool to achieve alternative outcomes for his students. This example is interesting in terms of the implications beyond mere behaviours in PD sessions, and it is probably applicable in some way to each type of compliance where "if the pedagogy is potentially detrimental [or perceived that way], as in the educator's deliberate misuse of the technological tool in this case, then pupils suffer" (Friedman et al., 2009, p.254)

 The practical implications of the Academic Development Compliance Typology are discussed in the following section, in which six possible uses of the typology are listed and explained. The suggestions in this section apply to all stakeholders in the field of academic development included in this study.

Practical applications of the ADCT

Due to its generic nature, the typology has possibilities for practical application in the field of academic development. It could be used as a checklist for academic developers, educators and managers in assessing the impact of activities designed to encourage and upskill educators to integrate technology effectively into their teaching practice. Suggestions for the practical application of the ADCT are listed as below:

1. With an awareness of the typology, Academic Developers may be better able to facilitate change in their attitude to educators as well in their own professional practice by providing more learner-centred PD.

2. Educators' awareness of the compliance categories may allow them to develop a better understanding of their own individual needs and the need to identify attainable professional learning goals (Louws et al., 2017).

3. An awareness of the compliance categories may provide a framework within which managers can better evaluate the impact of academic development.

4. If educators accept the premise that they have a professional responsibility to engage in academic development (Creasy, 2015; Knapper, 2016), the typology could help them identify their personal dispositions and characteristics or 'baggage' and provide opportunities for self-evaluation.

5. Informed by self-evaluation and aware of alternatives, educators may be able to formulate their response to the academic development standards required of them by their institutions.

6. The ADCT may assist central learning and teaching units to evaluate responses of educators to blended learning and teaching. Prior to the implementation of new academic development strategies, other key stakeholders (e.g., administrators, technical experts, managers and 'other' academic staff) could utilise the typology to consider the critical elements of educator engagement and agency.

7. Acknowledgement and exploration of the extrinsic and intrinsic factors which, according to the model, influence educators' place in the compliance category may enable managers to make decisions based on a broad range of perspectives and to discover ways of preventing subversive compliance.

In short, through the lens of the Academic Development Compliance Typology, the tensions that were revealed throughout this research between educators, academic developers and managers could be acknowledged and, at least to some extent, ameliorated. Moreover, a deeper understanding of responses to compliance requirements might challenge existing assumptions about the differences between HE and VET educators and prompt some decision- making in regard to providing bespoke PD opportunities to address the specific and diverse needs of these two cohorts.

Chapter Summary

This chapter opened with a debate around the issue of lack of clarity around the terms, concepts and language of academic development from the perspectives of both ADs and

educators. Factors perceived as impacting the work of academic developers were then investigated, with particular focus on the relationships and tensions between ADs and educators in regard to the effectiveness of academic development activities. I paid particular attention to a discussion about how instances of educators' compliance and negative behaviours may affect ADs and to what extent this impacts the ability of educators to maximise academic development opportunities which will achieve learning outcomes and enhance their blended teaching practice. Role clarity, titles and status within the university structure were analysed, as were management attitudes towards academic development and ADs.

Following a discussion on the place of ADs in university structure, I debated the relevance of the location of learning and teaching units and explored the dissonance between the literature regarding centralised vs decentralised teams. This was interesting in the context of educators' and developers' views on this topic, as was an exploration of how such positioning might influence the value of academic development, particularly for educators in the HE sector.

Next, the well-documented topic of the most effective forms of professional development as related to blended learning and teaching was explored in relation to the theme of alignment of PD with educators' needs. I highlighted the tensions between the HE and VET cohorts in regard to one-on-one support, workshops, and graduate learning and teaching programs, as well as the attitudes of educators in both the VET and HE sectors to such formal courses. I followed this discussion with an exploration into the differences between the unique characteristics of the HE and VET cultures as they relate to academic development. Because I discussed other complexities of the diverse VET and HE cultures in terms of the different institutional priorities and professional practices in Chapters 4, 5 and 6, these themes were covered only on a superficial level here. As increasing number of studies into changes and developments around dual sector institutions confirm (Bentley, Goedegebuure, & Schubert, 2016; Saraswat, 2015; Wheelahan, Moodie, Lavigne, & Samji, 2018), differences between the two ends of the sectoral scale, as well as what Moodie et al. (2009, p.9) describe as "what the sectors do in the middle" need to be more fully acknowledged and acted on by the management of this dual sector university. Ways in policies and procedures around academic deployment could be less 'one size fits all,'

aligning with the HE/ VET sectors and their respective pedagogies and strategies, will be summed up in the concluding chapter of this thesis.

The final section of this chapter was dedicated to the concept of educators' compliance with academic development activities which I suggested can be categorised into three levels of *active*, *begrudging* and *subversive* compliance. This theory is discussed and presented in the form of a typology - the Academic Development Compliance Typology.

Section 4:

Conclusion

Chapter 7

Overview

> *There has been, for example, little rigorous evidence produced over the past forty years of technology leading to the sustained improvement of teaching and learning. Similarly, most education institutions and systems certainly do not appear to be in the throes of full-scale revolts or even partial transformation. Much of the rhetoric of digital education has proven frustratingly difficult to substantiate.' (Selwyn, 2016b, p. 8) More than ever before, the issues and tensions that have grown up around education and technology merit close examination. What exactly do we mean by the terms 'education' and 'technology? (Henderson et al., 2017, p.2).*

This quotation encapsulates an increasing concern amongst educators that, despite the 'infiltration' of digital technologies into higher education, and the constant debate about the effects of technology on learning and teaching quality, "net changes in [pedagogical] practice are minimal" (Torrisi-Steele, 2018, p.180). Researchers also note the difficulties that face those in leadership roles, as well as educators and students in the current educational climate of rapidly evolving technology. Some of the issues highlighted above which are still prevalent are addressed in this thesis. Accordingly, the chapter will:

- review the aims of the research and the research questions.

- summarise and describe my findings within a framework of the interpretive paradigm that underpins the study.

- suggest how this research challenges some existing thinking and contributes new and novel information to the current body of literature in the field of blended learning and teaching.

- discuss the practical implications of my thesis in relation to possible further research into institutional approaches to managing blended teaching practice, particularly in regard to dual sector universities.

- present an Academic Development Compliance Typology; and

- conclude with a brief description of the particularity of the research and an acknowledgement of the limitations of the study.

Research questions

The primary objective of this mixed-methods study was to investigate the factors that positively and negatively impact educators who are teaching in a blended mode. My specific focus was on the themes of educators' use of technology in their face-to-face teaching, the impact of academic development on educators' integration of technology and the tensions that exist in a dual sector university in regard to blended learning and teaching practice.

For this study, I used a mixed-methods sequential explanatory design which involves collecting and analysing quantitative, and then qualitative data in two consecutive phases as discussed in Chapter 3. This 'mixing' or integration of both kinds of data within one study is applicable, as Ivankova et al. (2006) explained, when neither quantitative nor qualitative methods are sufficient by themselves to describe details and to capture trends: "When used in combination, quantitative and qualitative methods complement each other and allow for a more robust analysis, taking advantage of the strengths of each" (p.3). The quantitative phase in this study involved an online survey instrument incorporating educators from 11 Australian universities across both the Higher Education (HE) and the Vocational Education and Training (VET) sectors. My aim in this initial section was to provide a broad, holistic overview of the educational landscape around blended learning and teaching. For the qualitative phase, I conducted 36 semi-structured interviews with HE and VET educators from a dual- sector university located in a major city in Australia.

Finally, to add further richness to my study, I triangulated the data with semi-structured interviews with academic developers (ADs) who were currently employed at this dual sector university. My aim in including this cohort extended beyond the value of triangulation to study data "from more than one standpoint" (L. Cohen & Manion, 1986, p.254). As discussed in Chapter 3, I used the approach of 'crystallisation' (Richardson, 1997), to provide me with a deeper, more complex, more nuanced understanding of blended learning and teaching practice. Whilst the findings summarised in Tables 25, 26 and 27 below are based on a combination of both the quantitative and qualitative data, I make no attempt to generalise. I provide, rather, a description of how the findings might add to the existing body of knowledge and literature in the field of blended learning and

teaching. To evaluate educators' attitudes to the blended learning and teaching paradigm, I formulated the following research questions and sub questions:

1. What are the main issues facing educators teaching in a blended environment in Australian universities?

    a) What factors do educators identify as *barriers* to successfully managing their blended learning and teaching?

    b) What factors do educators identify as *enablers* to successfully managing their blended learning and teaching?

2. What technological tools do educators use in their blended teaching and why?

    a) How do educators integrate technological tools with their face-to-face teaching?

    b) What are educators' perceptions as to the advantages and disadvantages of integrating technology into their face-to-face teaching?

3. How does academic development impact educators' blended teaching practice?

    a) What kinds of academic development do educators perceive to be of the most value to their blended teaching practice?

    b) How do educators perceive the role of academic developers, and what are the relationships between these two cohorts?

    c) How do academic developers influence educators' blended teaching practice?

Summary of Findings from Research Questions

Research question 1: What are the main issues facing educators teaching in a blended environment in Australian universities?

To address Research Question 1, I identified 3 main issues facing educators, all of which appeared to impact the effectiveness of blended teaching in the dual sector university in this study. These factors are illustrated in Table 25.

The data for Table 25 was collated in response to Research Question 1.

Findings	Description of Findings
Time	Referred to frequently as 'ubiquitous,' lack of time was seen as the most significant barrier to technology integration into the classroom. This related to upskilling in new technology, reflection about the value of tools and time to prepare and implement new blended strategies generally.
Work loads	The perceived dichotomy between research and teaching was perceived to impact both components. Research was generally considered to be the main priority with teaching (both face-to-face and blended) of less importance in terms of career prospects.
Management issues & institutional culture	Lack of support from management was thought to be a significant factor in the successful planning and implementation of blended learning and teaching strategies and systems. These related to technology integration and academic development relevant to R.Q. 2 & 3 as below. Participants mentioned little recognition or reward for effort invested in improving blended teaching practice or acknowledgement of the competing demands of research and teaching.

Table 25: Main factors educators face when teaching in a blended mode

Research question 2*: What technological tools do educators use in their blended teaching and why?*

The research data showed that educators tended to divide technological tools into two categories: organisational and learning and teaching tools. Overall, most tools were perceived as belonging to the former category and were selected mostly in response to workplace pressures such as heavy teaching loads, work model imbalances (e.g., teaching vs research priorities) and lack of time. In the HE sector, most technological tools were not generally considered to be particularly useful for teaching and learning purposes. VET teachers, on the other hand, found some tools valuable to their teaching, particularly videos and quizzes that enabled reinforcement and recall of specific information relevant to the workplace.

Educators in both the HE and VET cohorts generally felt that technology assisted them in their broader academic lives. Some educators believed that, when used thoughtfully, technology enhanced their face-to-face teaching although they did not think it transformed it. Face-to-face teaching was considered by educators from both sectors to be a more effective way of teaching than purely online delivery. Flexible blended options were viewed as useful for students who were unable to physically attend on- campus classes, but some educators were critical of online, LMS-embedded lecture content which they believed negatively impacted numbers of attendees at face-to-face lectures.

Both cohorts used the university's LMS and, in both cases, it was primarily used for organisational rather than teaching purposes. In contrast to their HE counterparts who stated that the LMS eased their workloads, VET Educators were largely dissatisfied with the functionality of the LMS which they believed did not adequately address compliance issues.

Based on both the quantitative and qualitative data in this study, a brief description of the findings generated by Research Question 2 is provided in Tables 25, 26 and 27 below. The perspectives of academic developers (where they made interview comments relevant to the discussions) are summarised below each finding. It should be noted here that, as discussed previously, the descriptive details in the tables are categorised as 'findings' within the parameters of the interpretative paradigm on which this study is based.

Findings	Description of Findings
LMS Grade Centre	
HE Educators	Used frequently by all participants to enter marks. Educators believed this saved time and provided clarity and opportunities for moderation which were not as efficient in, for example, Excel spreadsheets used previously.
Academic developers	Educators were often unaware of the potential and advanced functionality of Grade Centre. They cited examples of some educators who refused to engage with the tool at all.
LMS Quizzes	
HE Educators	Often integrated into Blackboard more for tracking participation than as a learning tool. Educators in this sector did not find quizzes particularly useful for strengthening students' understanding of concepts, although they were considered to

Findings	Description of Findings
	be of value for reinforcement of facts or as 'hurdles' towards assessment.
Academic developers	Failure to invest sufficient time into good question design and feedback meant educators did not maximise the potential benefits of the quiz tool.
External quiz tools (e.g., Kahoots, Socrative, Quitch)	
HE Educators	Reported quizzes being used as a diversion, distraction, or a 'gimmick' to engage students in lectures, educators did not believe these quizzes to be effective for deep learning. Maths and English language teachers, however, were positive about the benefits for short-term recollection of facts and grammatical structures.
Academic developers	Educators were too ready to dismiss these tools as 'bells and whistles' but agreed that they were not always effective as intervention measures for quality assurance. This was often cited the reason for integration of these tools.
PowerPoint	
HE Educators	Described as a structural framework for lectures, this was considered to be a valuable teaching aid in that sense. However, advanced interactive features were not seen to be useful, and most were unaware of them.
Echo360	
HE Educators	Viewed mostly as a repository for PowerPoint lectures previously delivered face-to-face and subsequently uploaded to the LMS. This was not adopted as a teaching tool, despite some PD offered regarding its interactive functionality.
Turnitin	
HE Educators	Integrated into assessment tasks to detect plagiarism, but not used for teaching purposes in regard to upskilling students in academic writing, except to provide information about institutional academic integrity policies.
Academic developers	Sympathised with educators' lack of awareness of the potential pedagogical value of the tool. However, it was not promoted to this end by the university or factored into PD plans.
Videos (e.g., YouTube, Ted Talks)	
HE Educators	Downloaded mostly from external websites, sometimes for 'flipped classroom' content or to visually reinforce concepts discussed in lectures. Some educators also described videos as useful 'time fillers' in lectures which were too long.

Table 26: Tools used by HE educators in their blended teaching

The data for Table 27 was collated in response to Research Question 2.

Tools	Description of Findings
LMS Grade Centre	
VET educators	Compulsory for grading by all departments. Useful for auditing purposes but considered inadequate in meeting compliance requirements which were reported as integral to the VET sector.
Academic developers	ADs agreed both with the inadequacy of the LMS in this regard and that VET concerns should be acknowledged by the university with some attempt at resolution.
PowerPoint	
VET educators	Viewed as the framework to teach what educators referred to as 'theory' - described as the first phase of VET learning, before practice- based activities in simulated or 'on site' workplaces.
LMS quizzes	
VET educators	Used for reinforcement of facts and figures. These were valued as a teaching tool for theory, especially in the Trades area where weekly 'job safety analysis' (JSA) quizzes were compulsory for all apprentices.
Academic developers	Several ADs felt that JSA quizzes were well designed and regularly revised for content and relevance to learning outcomes. They were impressed by the collaborative approach where students were encouraged to make multiple attempts to reach desired knowledge of safety levels.
Videos	
VET educators	Customised, internally created videos provided useful demonstrations of authentic work practices. Also sometimes integrated into courses as 'flipped content'. Some YouTube clips were also regularly used in other VET subjects, e.g. Business and Health Sciences, to provide simulations of authentic workplace practices.
'Stand-alone' external databases (e.g., Access, Excel)	
VET educators	Internally created and maintained as 'work arounds' to what were considered to be serious functional limitations of the LMS, particularly in regard to the lack of tools to provide attendance statistics. Described as 'rogue' databases, as they were neither sanctioned nor supported by the university's IT department.
Academic developers	Sympathised with educators' need for these. They made the comment that no one in the central unit was approached to

Tools	Description of Findings
	support these databases. VET educators were seen as self-sufficient with these databases.

Table 27: Tools used by VET educators in their blended teaching and why

Research question 3*: How does academic development impact educators' blended teaching practice?*

Overall, educators from both sectors were of the view that the academic development offered by the university in this study did not align with their needs. Professional development was often too generic and overly focused on the LMS and its embedded tools. They would have preferred PD around innovative solutions and strategies which could more effectively promote adoption and integration of relevant technologies to enhance their teaching.

HE educators expressed stronger opinions about the perceived value of academic development than those in the VET sector, and they were more critical of the PD sessions offered. In HE faculties, educators generally felt more pressured by managers to attend workshops than VET educators who indicated that they were allowed more freedom where institutional demands and expectations were concerned. Whilst there were probably other complex issues at play, this may have contributed to more instances of subversive compliance amongst HE educators than those in the VET sector who were more likely to exhibit begrudging or active compliance (see previous section on the concept of compliance). The compliance typology that I developed from data collection is presented in Chapter 6 in relation to the impact of academic development on educators' blended teaching practice.

The data from semi-structured interviews with academic developers augmented the findings of this study. These professional staff complained that their roles, work and placement within the university structure were largely misunderstood and undervalued both by management and educators. Relationships between all these cohorts were strained, and this tension was perceived to negatively impact ADs' efforts to successfully upskill educators in the effective use of technological tools in the classroom. Of further concern to ADs was that evaluation of professional development sessions was cursory and ineffective, in that feedback was not shared with them, disappearing *"into the ether"* as

one AD described it, rather than optimising the potential of the analytics which could have been of value to all stakeholders.

As discussed in the literature, the nebulous position in which ADs frequently find themselves led to questions around the power developers presumably possess and whether they may, in fact, act more as barriers than enablers to educators trying to manage blended teaching practice. However, some claims that these powerful ADs "can and will do things to others" (Roxå & Mårtensson, 2017, p.96) did not resonate with the interviewees in this study who generally felt ineffective in their roles and unable, therefore, to exert any significant influence - either positive or negative - on educators. On the other hand, Danish researcher Friberg, 2015, as cited in Roxå and Mårtensson (2017) claimed that the language ADs use is aimed at 'formalising academic teaching' was echoed by educator participants who felt that clichéd words acted as a barrier to successful professional development. In regard to the role of ADs as 'enablers' of blended teaching practice, on the other hand, interviewees agreed with the literature covered in Chapter 2, that this may, or may not be the reality, depending on the type of development activities and other institutional and personal factors.

According to both ADs and educators, institutional learning and teaching strategies developed by the leadership team of the central learning and teaching unit were poorly communicated and ineffectively implemented. Neither educators nor ADs believed that they had sufficient input into these plans. In regard to academic development, such lack of agency was perceived to have a negative impact on all institutional stakeholders. ADs felt that decisions around plans and processes were often ill-considered. This resulted in educators being required to attend professional development sessions related to technologies with which they were unfamiliar and which they often found irrelevant. Many teaching and learning strategy workshops (frequently facilitated by reluctant ADs) were unpopular, and mandatory attendance for educators subsequently evoked high levels of subversive compliance.

A brief description of the findings generated by Research Question 3, sub question a (What kinds of academic development do educators perceive to be of the most value to their blended teaching practice?) is provided in Table 28. To provide more detail, I also included

perceptions of least value in Table 29. I have included a brief description of the findings generated by this question, together with perspectives of academic developers where appropriate, with each finding.

Perceptions of the *value* of the various types of academic development did not differ greatly, between the HE and VET sectors, so I have included both in Table 28 and Table 29. However, as was the case with the choice of technological tools, the *reasons* why they considered certain types of academic development of value (or not) revealed a number of tensions. These are discussed in detail in Chapters 5 & 6.

Type of academic development	Description of Findings
Support from colleagues, e.g., one-on-one support	
HE & VET Educators	Unanimously believed to be of the most benefit, educators valued the timely, spontaneous nature of this type of support as well as its relevance to their subject matter. Usually located informally within departments, it allowed relationships with 'early adopters' and mentors to develop. Flexibility allowed educators to save time by not engaging in what they felt to be irrelevant PD sessions and not having to cross campus to attend them. They saw this type of pf PD as authentic.
Academic developers	Not always seen as effective, ADs felt educators sometimes over-valued this type of PD because "they didn't know what they didn't know". This applied mostly to HE educators. The few ADs who commented on VET departmental PD were generally impressed with the level of expertise provided internally.
Workshops related to the LMS	
HE & VET Educators	Given the necessity to use the LMS (often on a daily basis) and a general dependency on its functionality, these were accepted as a more or less integral part of academic life. However, LMS workshops were viewed by some educators as often peripheral to their needs and too detailed. They were

Type of academic development	Description of Findings
	also considered to be a distraction and an extra burden on heavy workloads.
Academic developers	ADs disagreed that such workshops were as irrelevant as HE educators believed. Often, they thought they had knowledge of a LMs tool and then, not having attended the workshops, needed one-on-one support. No comments were made about VET educators on this issue.

Table 28: Types of PD considered to be of most value to blended teaching practice

This data was generated in response to Research Question 3 (sub question a): What kinds of academic development do educators perceive to be of the most value to their blended teaching practice?

Overall, educators from both sectors were of the view that the academic development offered by the university in this study did not align with their needs. Professional development was often too generic and overly focused on the LMS and its embedded tools. They would have preferred PD around innovative solutions and strategies which could more effectively promote adoption and integration of relevant technologies to enhance their teaching.

HE educators expressed stronger opinions about academic development than those in the VET sector and were more critical of PD sessions offered. They generally felt more pressured by managers to attend workshops than VET educators who indicated that they were allowed more freedom where institutional demands and expectations were concerned. Whilst there were probably other complex issues at play, this may have contributed to more instances of subversive compliance amongst HE educators than those in the VET sector who were more likely to exhibit begrudging or active compliance (see Chapter 6). As discussed in the previous chapter in relation to the concept and categories of compliance, I developed a compliance typology which is summarised under the heading *Theoretical Contribution,* below.

Based on the data in this study, a brief description of the findings generated by Research Question 3 is provided in Table 28 and Table 29. As with the previous tables, I have included a brief description of the findings generated by Research Question 3, together with perspectives of academic developers where appropriate, with each finding.

Perceptions of the *value* of the various types of academic development did not differ greatly, between the HE and VET sectors, so I have included both in Table 28 and Table 29. However, as was the case with the choice of technological tools, the *reasons* why they considered certain types of academic development of value (or not) revealed a number of tensions. These are discussed in detail in Chapters 5 & 6.

Type of academic development	Description of Findings
General workshops re new technological tools	
HE & VET Educators	While sometimes considered to be potentially useful, these sessions were viewed as 'one off' instances of new innovations. They were usually not followed up, hence educators gained little understanding of how these tools functioned or whether they were relevant to their teaching. HE Educators complained about lack of time in relation to these sessions, especially in regard to reflection or time to practise new technologies. VET teachers often upskilled re new technology within their individual departments, so did not prioritise attendance at these workshops.
Academic developers	AD comments were similar to LMS workshops
Formal graduate teaching programs	
HE & VET Educators	HE Educators felt they were sometimes pressured into completing the University's "Grad Cert." Many felt they did not need formal teaching qualifications because they were already appropriately credentialed with their academic qualifications (i.e., PhDs). VET educators did not generally participate in this course; the few exceptions described it as too research focussed and 'elitist'.

Type of academic development	Description of Findings
Academic developers	ADs were generally in agreement that the 'Grad Cert' was not particularly effective and did not provide the necessary teaching skills they thought HE educators needed. No comments were made about VET teachers' views on this.

Table 29: Types of PD considered to be of least value to blended teaching practice

This data was generated in response to Research Question 3 (sub question a): What kinds of academic development do educators perceive to be of the most value to their blended teaching practice?

The HE and VET dichotomy

As discussed in previous sections of this study, differences in approaches to blended learning and blended teaching practice between the HE and VET educators emerged during analysis of both the quantitative and qualitative data. As such, the dual sector university context formed an integral part of the research. Disparities related to academic development and educators' use of technology are tabled above. Other differences between the two cohorts that were identified in the literature as well as data were related to cultural tensions. These impacted VET educators' teaching practice in various ways and they are briefly summarised and described in Table 30 below. As stated in Chapter 2, despite some recent studies into the sectors (e.g., Kanade, et al., 2020), there is a dearth of literature in regard to VET blended learning and teaching compared with the wide body of research available for the HE sector.

Findings	Description of Findings
Low teaching & professional status	VET teachers felt undervalued by their HE counterparts who they felt did not understand their pedagogical practices or contribution to education. There was also a perception that HE educators did not acknowledge VET expertise or skill in delivering authentic programs. The believed that HE academics considered themselves superior to VET educators. Both cohorts were satisfied with their teaching expertise, although VET educators believed that lack of research

	pressures and more face-to-face class time led to better VET teaching practice than in HE faculties.
Institutional culture	VET educators reported a 'silo' culture where they felt there was little communication or collaboration between HE and VET departments. This impacted the value of academic development which they saw as "HE top-heavy" as well as their use of technology as discussed above.
Management & leadership issues	Although both cohorts were dissatisfied with many aspects of management, VET educators appeared to be less impacted by it in terms of blended teaching practice. VET educators felt that many management issues fell outside their 'brief' and did not believe that a lack of agency was a serious problem. In terms of leadership, most of the VET cohort mostly felt supported in their departments. HE educators were generally more vocal about problems with management and leadership and more differentiated between the two terms more clearly.
External institutional factors	The 'uniqueness' of the VET sector within the dual sector university was a prevalent theme. Educators felt that needs to meet auditing, tracking and other VET- specific requirements were not adequately acknowledged or met by the institution, especially in relation to choice of technical tools and platforms such as the LMS. On the other hand, VET educators were less restricted by systems and thus viewed themselves in a positive light as 'less institutionalised than HE.

Table 30: Differences between the HE and VET sectors

This data did not relate to a research question. It was generated, rather, in response to a significant theme that emerged around the differences in blended teaching practice between educators in HE and VET sectors and how these are shaped by a dual sector university.

Contribution to the Literature on Blended Learning and Teaching

A review of blended learning education literature from 2000 to 2020 in Chapter 2 of this study described the rapid developments in technology in the ever-changing landscape of higher education over almost two decades. A large body of research relating specifically to the use of technology in education has been highlighted by a number of studies throughout this period. It is clear that, as blended learning has become more prevalent across the higher education landscape, there is a pressing need for a wider body of literature into the impact of technology on actual academic teaching practice. In this context, many studies

stress the importance of students' views, claiming that it is their insights that will influence future research into which features of digital technology they see as useful (Henderson, Selwyn, Finger, & Aston, 2015) and what is believed to be effective or in need of improvement (Diep, Zhu, Struyven, & Blieck, 2017; Waha & Davis, 2014). Other studies have focused on models for educators engaging in blended learning and teaching and on widely accepted frameworks to analyse teachers' use and understanding of technology. Well researched also is the area of academic development and the impact technical support has on academics' willingness to adopt and integrate technology into their teaching (see Chapter 2).

Literature acknowledging and exploring the tensions in and dynamics in the relationships between academic developers and educators which is critical to achieving effective blended teaching practice appears to be scarcer. By addressing some of the key issues in relation to this theme, this thesis makes a contribution to current understandings in this field.

A further gap in the prevailing literature identified is in regard to dual sector universities. While, as stated above, research abounds with studies into the impact of technology on education in the HE sector, I was unable to locate an equivalent body of literature investigating challenges faced by educators in dual sector institutions on this topic. My exploration into how VET educators' attitudes towards the blended learning and teaching paradigm differ to those of their HE counterparts, and the singular ways in which they integrate technology into their teaching also contributes to knowledge in this area. As well as such tensions, my study also identified a number of commonalities between these two unique sectors which could lead to future research into ways in which HE and VET educators could learn from each other. Insights gained in this thesis could challenge contemporary perceptions of the diverse and complex pedagogical cultures of higher education and vocational sectors, and how these assumptions might influence blended learning and teaching in dual sector institutions.

Academic Contribution

Integration of technology

As previously stated, the purpose of this research was to gain an insight into the factors that may act as barriers and enablers to effective blended teaching practice. These findings have provided an insight into how educators' perceptions of the value of technology to their teaching might directly impact their willingness to embrace new technological tools and to use them to their full potential. From the perspective of university staff in leadership roles, this could provide a greater understanding of how educators' attitudes to the integration of technology into their face-to-face teaching affects the successful adoption of innovative teaching and learning strategies which result in improved learning outcomes for students. Both survey and interview participants felt that there was a marked and disturbing lack of agency in relation to decisions made by managers where technology was concerned. This research raised an awareness of the need for improvement in managerial policies and strategies which would encourage educators to have a voice in the implementation of new technologies and how these could be effectively integrated into their teaching and overall professional work practices.

Academic development

Information sourced from interviews with academic developers indicated that they considered themselves to be largely ineffective in delivering effective support to educators that might encourage a greater level of engagement with blended delivery. They felt that overall, their role was undervalued by managers who showed a lack of understanding of the professional development work they carried out, and where they should be best located within university structure. Although many were highly qualified with teaching experience, they were not considered to be 'academics' and were categorised instead as 'professional staff'. This brings to light a need for management to engage in meaningful discourse with academic developers to better understand their practices and to implement more inclusive strategies which might enable ADs to stimulate the interest of educators in technology and teaching and motivate them to achieve higher levels of engagement with blended pedagogies.

Findings of this study also highlighted unsatisfactory relationships between academic developers and educators. An affiliation between these two cohorts was perceived to be

vital to establishing mutual trust and credibility and, therefore, successful professional development outcomes. Nevertheless, educators admitted that they knew little about the background, skills or indeed actual role of ADs, and showed little confidence in these professional staff, believing that they were aligned with management concerns rather than with educators' own needs. Problems appeared to originate in and were reportedly exacerbated by the university's central teaching and learning unit within which academic developers worked; little individual contact with educators was encouraged and potential relationship problems between the two cohorts were not acknowledged. This highlighted a need for managers to place a greater focus on encouraging and supporting the relationships between educators and academic developers when developing and implementing plans. Within budgeting and resourcing constraints, this should be given a higher priority than appears to be currently the case at the university investigated in this study.

A further finding in regard to the important relational nature of academic development was that both HE and VET educators expressed a preference for one-on-one, collaborative support from colleagues. This could draw the attention of universities to the benefits of unofficial professional development. Managers might consider allocating resources to promote the development of informal networks throughout the university which would underpin professional development practices in a supportive work environment.

One such option in regard to networking discussed above may be for the university to develop a culture that includes communities of practice, 'COP's. Originating from the concept of learning theory, Wenger (2011, p. 1) defined these as "groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly." He listed the value of COPs to participants in terms of problem solving, requests for information, seeking experience, discussing developments, mapping knowledge and identifying gaps. Although there is an increasing body of research exploring the advantages of COPs (Kordts-Freudinger, Al-Kabbani, & Schaper, 2017), they were not specifically mentioned by any participants in this study. However, research indicates that educators prefer to work with colleagues (Shagrir, 2010, 2017), and this preference was similarly expressed by all interviewees in the examples they provided (e.g., effective one-on-one, mentoring and other on-site support). It is likely, then, that unofficial COPs exist

under other names, several of which were mentioned by AD and educator interviewees in both the VET and HE sectors, such as special project teams and lunchtime 'show & tell' or 'brown paper bag' technical gatherings.

Given the amount of research suggesting the power of learning as part of a community, team or network in the field of academics (Farnsworth, Kleanthous & Wenger-Trayner 2016; Pyrko, Dörfler, & Eden, 2017), the acknowledgement, encouragement and implementation of COPs as a powerful mode of academic development could be a transformational innovation on the part of the university in this study.

Dual sector challenges

A final issue which emerged in this research was a perceived dichotomous structure in the dual sector university. Educators from both the HE and VET sectors felt that the two domains were not only clearly delineated but also disparate. HE courses were identified by educators as prioritising research and concepts, while VET educators claimed to focus more on reflective teaching practice which they believed encouraged more authentic, workplace learning. Despite an agreement between HE and VET educators that a blend of the two sectors was vital in the current educational landscape which was increasingly embracing 'future ready' or '21st century learners', the university did not appear to do more than pay 'lip service' to its dual sector responsibilities. There was an overall feeling that institutional strategies needed to be more inclusive of the diverse, complex and unique requirements of the respective sectors, rather than adopting a 'one size fits all' approach which seemed to be the dominant paradigm.

A factor that needs to be considered in relation to the effectiveness of what the university believed to be panoptic policies is the nature, degree and understanding of compliance with regulatory bodies which varies between the two sectors. For example, it was obvious from both HE and VET participants' comments that matters relating to standards set by the Tertiary Education Quality and Standards Agency (TEQSA) were not well communicated to teaching staff. Described by Hil (2012, p.98) as an organisation that "exposes the innards of every University across Australia," compliance and audits were viewed by educators with varying degrees of trepidation, with a VET course convenor complaining that he was *"always filling in some bullshit document or other for someone, to do something."* The VET

sector is also controlled the Australian Qualification Framework (AQF) to teach qualifications defined by industry training packages under a set of national quality standards, the AQTF. Hence it is not surprising that VET educators in particular feel as though they are being scrutinised, whatever mode of teaching they are using. As O'Brien (2015, p.167) pointed out, "Teaching other than what training packages stipulate may constitute non-compliance under the Australian Quality Training Framework" (AQTF).

A further suggestion informed by both the extant research (see Chapter 2) and my interpretation of the data is that the top management level should work towards dispelling what was described as a silo culture between the two cohorts; both appeared to believe they were pedagogically superior to the other, although this was more articulated more by VET educators than those teaching in the HE sector. This silo mentality may be partially due to VET's absence in research efforts such as in the HE sector (Beddie & Simon, 2017). Perhaps the management in this dual sector university could follow the lead of the UK's (2014) Education and Training Foundation's standards which recognise that teachers are 'dual professionals', i.e., vocational specialists as well as experts in teaching and learning. (Fuller, Unwin, & Weatherly, 2015). The aims of such standards are reportedly to enhance teaching and learning by increased evaluation and reflection of teaching practice. As discussed previously, VET teachers in this study already showed these qualities in their approach to both their blended and face-to-face teaching practice and to a greater, extent it seemed, than their HE counterparts.

Theoretical Contribution

An Academic Development Compliance Typology

One contribution of this thesis is the development of a typology of educators' responses to academic development requirements relating to blended learning, the *Academic Development Compliance Typology (ADCT)*. This is discussed in detail in Chapter 4 and presented in its complete form in Chapter 6.

I do not isolate the typology as the single original contribution of this thesis; on the contrary, I believe it to be original in itself, as most well-designed interpretative research projects are (Ling & Ling, 2017, Ch.2). In my review of the literature (Chapter 2), and in my comprehensive discussion on the impact of academic development on effective blended

teaching practice (Chapter 6), I identified a number of gaps in the prevailing knowledge which this study addresses. The Academic Development Compliance Typology (ADCT), with its inclusion of educators, academic developers as well as institutional leaders, provides a wider range of dimensions than other typologies of its type. I believe that in this way the ADCT adds to current understandings of blended learning and teaching practice.

Limitations of the Study

This mixed-methods study focused on the factors that are perceived to impact educators teaching in blended courses in Australian universities. The first section provided a general overview from HE and VET staff across a number of institutions, while the second part explored perspectives within the specific context of one dual sector university. Although I believe the research achieved its overall purpose of acquiring a deeper understanding of the issues that influence blended teaching practice in this university, it became obvious to me early in the study that the field of blended learning and teaching is a highly complex phenomenon. It is acknowledged, therefore, that there are a number of contributing factors that may have influenced the outcomes of this research. I will elaborate on these factors below.

In the first instance, while it is appropriate to draw conclusions for the cohorts I have investigated, I make no inferences about the wider population so the findings cannot be generalised to be applicable to any other dual sector university or group of participants. Indeed, given the small sample size, it may not even be representative of this institution; as the research was informed by *interpretations*, there is no intention to misrepresent the findings. For example, if this research had been carried out over a different timescale, a different picture may have emerged. During the approximately six months of qualitative data generating, the dual sector university in this study was undergoing a period of rapid change; this applied to both in relation to technology (e.g., transition to an new LMS) and restructure (e.g. a more top-down management change), so it is probable that both educators and academic developers displayed higher levels of stress, anxiety and negativity than would have been the case at a less turbulent time. This was illustrated in the Academic Development Compliance Typology where I included only negative responses, although I encountered many other more positive ones during the qualitative interviews. Nevertheless, the pessimism revealed in my data was also reflected in the behaviour of

interviewees; despite assurances of anonymity, some staff admitted that they were reluctant to provide honest responses, while others assured me that they were not usually so "*glum*" and "*negative*" about their work, their departmental managers or other institutional factors that affected them at this time.

Secondly, while I have some experience in interview techniques, it is possible that my questions were not sufficiently strategic to enable me to fully explore the underlying reasons behind the opinions of educators and academic developers. To address these issues, I made a deliberate attempt to create an environment that encouraged honest and open dialogue without presenting a forum where participants could merely vent their frustrations.

Moreover, while I tried to remain objective with study participants (some of whom I was acquainted with professionally), a degree of personal bias may have influenced my interpretation of the data. Having worked both as a learning designer and teacher in a blended environment, I am well informed about the challenges facing educators as they move from traditional face-to-face teaching practices to alternative online and blended pedagogies. It is possible that I posed leading questions at times, or that I prompted answers to align with my preconceived ideas. Aware of this throughout the research process, I deleted a number of what I considered to be invalid responses during the data analysis phase. I was also careful not to conflate interview data with my own personal experience or anecdotes, relying heavily on an interview journal as well as a comprehensive database of audio files and transcriptions to manage this

I attempted in this study to continue to position my research according to the axiology I described in the section *Research Philosophies*. Further, as indicated in the discussion on the semi structured interviews which were conducted to generate my qualitative data, I made it clear that I valued the personal interaction with my interviewees more highly than the anonymous views expressed through the qualitative data in the online surveys. However, as stated above in the comments about objectivity in relation to the analysis of my qualitative data - and the conclusions drawn from that - some preconceptions may have prevented me acknowledging some values and intangible attitudes between participants and academic developers. For example, while a number of tensions between the two

cohorts were, I believe, thoroughly analysed and comprehensively discussed, the principles of 'trust' and 'respect' were perhaps not directly reflected in some sections of this study.

As this research was based on data collection which spanned the years from late 2016 to early-mid 2017, it is probable that the findings are already outdated in terms of the rapid developments in the area of blended learning and teaching beyond the data collection and analysis period. However, one can assume that attitudes and behaviours are less likely to 'date' over a period of time in the same way as technology and pedagogy generally does. Therefore, although the study is a 'snapshot in time,' valuable insights can be gained from it and the typology should be still applicable. Moreover, every attempt was made to stay abreast of the recent literature to ensure that new research was acknowledged and included, where relevant, in the findings. Resources included in the literature review included the most recent studies found in 2020.

Implications for Future Research

As this study was confined to the use of simple descriptive statistics to analyse the quantitative data generated, I make no rigorous empirical claims. However, the findings provided a starting point for further statistical analysis, particularly in regard to the dual sector issues. The following lines of inquiry are suggested:

1. A further research project designed validate the ADCT. The typology could perhaps also extend to a study of student compliance and how this influences learning outcomes in the HE and VET sectors.
2. A study to explore correlations between the tools that VET and HE educators choose to integrate into their classrooms and their perceptions about whether technology enhances their learning or has minimal impact.
3. Testing to be carried out for statistically significant relationships between variables to establish whether there is a relationship between educators in the VET and HE sectors and their opinions on the impact of academic development on blended teaching practices.
4. A survey of a large sample of educators from both HE and VET areas in a number of dual sector Australian universities to be conducted to assess the extent to

which similar findings would be revealed. As well as the descriptive statistics, inferences about the relationships between constructs could be added.

5. Further investigation using the Academic Development Compliance Typology with a wider group of ADs working in dual sector universities, as well as with educators and other stakeholders involved in the planning of academic development strategies.

6. More research into the role of academic developers and the impact that their relationships with educators has on successful blended teaching practice.

Closing Remarks

I believe that if a greater understanding of the factors which impact blended learning and teaching practice has been reached in this thesis, the research presented is worthwhile. The constantly shifting nature of technology and education inevitably made the topic a particularly challenging area of investigation, particularly in the current climate when, as Henderson et al. (2017, p.186) observed, critical appraisal of the benefits of technology to technology fails to progress "beyond a vague notion that digital tools and applications are 'desirable' and probably 'a good thing'."

In regard to my personal journey throughout this thesis, it has become clear that historically, rapid change has been a constant with all research, regardless of methodology or discipline. As Euclid observed to the Egyptian ruler, Ptolemy 1 over 700 years ago, *"there is no royal road to Geometry."* (https://en.wikiquote.org/wiki/Euclid). An adaption of this quotation could be useful advice for those contemplating a similar research journey to mine - *"there is no royal road to Research."*

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Appendices

Appendix A: Examples of initial codes applied to sections of data

The first time I heard blended learning was when I was working in the ILC. Otherwise I probably wouldn't probably have ever heard it for quite some time after that. I've heard it occasionally at conferences but no one else at work really had used the blended learning term until just recently, when it sort of became the latest buzz word.

Code: hadn't heard of term BL til recently.

I see blended learning as using technology in your teaching to support and more things to add more things to what you're trying to teach students as ... Yeah, if you've got a certain point to use, or ... There are different ways of presenting that information to students and technology can be either used to present it or as an adjunct to it, as supportive to it, as a follow-up to it, as whatever

Code: BL defined as support to f2f teaching.

Blended learning works. It really engages the students by having a different mode in the class versus the teacher going on about something all the time. You can present something with technology, follow up with that, you can sort of get them to do something else on paper or discussion, and then actually put them on a computer to follow up as well using technology and it's just ... They are so adept at using technology and understanding technology that they take to it really well, and as I said it's really engaging. They engage with it.

Code: BL works as different teaching mode.

Code: Students used to technology so engage with it.

I just automatically use technology. I just think of myself as the student and I would hate to be sitting in a classroom just listening to a teacher drone on for two hours or a lecture drone on for two hours. I need to have it broken up with different stimuli, things like that, so when I go to teach something I think part of my class, whether it be a quarter or something like that, or less or more or something, part of that needs to be blended with using technology. I need to incorporate that in my lessons. I don't want drone on for ages. I want to have a break and I want to present something else to students, so they can engage with something else instead of with me all the time.

Code: Students used to technology so they engage with it.

Code: Need to use technology to engage students with it.

There's different learning styles and students are engaged by certain different things, and it's good to swap around using different things and that keeps the students engaged. And by swapping and using different methods and modes and things like that, then the students pick up things from those different forms.

Code: different learning styles

Code: need to consider different modes of teaching

I like the face-to-face, but I also like developing the technology stuff. I mean, you even just things like Prezis and things like that, I get a kick out of using them and then using them in the class as part of my face-to-face approach as well.

Code: likes both f2f & technology

I've tested a lot of technology out. I'm not a really techie sort of person but I like using it. So if I'm trying technology, if I can't get the hang of it within say, 15 minutes, I think it's a waste of time. I think if I can't do it, then there'll be a lot of other teachers who couldn't do it either. So I'll give that a miss, but I'll use some forms of technology. If I can understand it and can use it, or think I can develop something good out of it or understand it within 15 minutes, then I'll keep going with it. Or sometimes there are some forms of technology that you think, "This is really good, it'll probably take me a little bit longer to work out but I think it would be really good in the classroom, and I'll persist with it."

Code: will persist with technology if worth it

Code: uses technology if it's quick to learn

Appendix B: Copy of e mail to potential educator participants

Copy of E mail to potential participants

Subject PhD Research Project – blended learning

Dear X

My name is Carol Aeschliman, and I am a PhD student in the School of Education at Torrens University, Australia. I am researching the way in which educators manage their teaching I blended environments. I am particularly interested in what enables or impedes educators in successfully integrating technology into their teaching practice.

The research will contribute to the development of more effective curriculum design and sustainable academic practices in Higher Education.

If you are currently teaching an undergraduate course in the blended delivery mode, I would very much appreciate your participation in my research by completing the 10–15-minute electronic survey at the following URL: http://opinio.online.swin.edu.au/s?=18295.

Please follow the link to the questionnaire or copy and paste the URL into your internet browser.

I have attached a document with further information about my research project.

Thank you

Sincerely

Appendix C: Copy of email to potential academic developer participants

Copy of E mail to potential academic developer participants

Subject PhD Research Project – blended learning and teaching

Hi X

As you may know, I am researching the way in which educators manage their teaching and blended environments. I am particularly interested in what enables or impedes educators in successfully integrating technology into their teaching practice.

One of the themes which is of interest to me is the impact that academic developers have on blended learning and teaching. In particular, I would like to explore the relevance of academic developers' roles and what factors positively and negatively influence how PD is delivered and received by educators. This information would add a further and hopefully rich dimension to the data collected from an online survey conducted with educators in HE and VET.

The research will contribute to the development of more effective curriculum design and sustainable academic practices in Higher Education.

I would very much appreciate your participation in my research by participating in a face-to-face interview. This would be roughly one hour in duration. I have a list of potential questions although these are semi-structured interviews and I hope to use them merely as a guide. The list of questions is attached.

I have also attached a document with further information about my research project.

Thank you
Cheers

Appendix D: Participant information and informed consent form

PARTICIPANT INFORMATION AND INFORMED CONSENT FORM

Negotiating the Blended Learning Environment: Barriers and enablers to successful blended delivery by academics in higher education under- graduate programs

Ethics Approval: 4/4/17

HREC number: 12/17

Each participant must sign two copies of this form. One is to be retained by the participant and one by the researcher.

Dear Participant

You are invited to take part in the above research project. The project has been approved by the Torrens University Australia Human Research Ethics Committee.

The aim of this project is:

The aim of this national study is to investigate how academics negotiate their teaching in blended learning courses and to identify what factors they see as barriers or enablers to successful blended teaching practice. The ways in which academics integrate technology into their classrooms within the higher education sector will be examined, and particular focus will be placed on what professional development can be provided to help to support their blended teaching and learning.

The expected benefits of this project are:

The research will identify the factors that act as barriers and enablers to higher education academics in managing their blended environments and achieving high quality teaching in the blended mode.

It will also contribute to the development of more effective curriculum design and sustainable academic development practices.

Your participation in this project will involve:

An electronic questionnaire of approximately 10-15 minutes duration, followed by a semi-structured interview of 45 to 60 minutes duration. Interviews will be held on the university campus at the participants'

workplace where possible. Where a physical interview presence is not possible, interviews will be conducted via Skype or Zoom at the convenience of the participant.

The foreseeable risks of your participation have been identified as:

Risk	Mitigation strategy
Describe any risks, including inconvenience, discomfort or harm (physical, psychological, economic, etc), or note 'None'.	*Describe how any risks will be managed or mitigated, and how participants will be supported in the case of any adverse event.*

Intellectual property in the data generated as part of this project, including any audio or video recordings and any photographs, will rest with Torrens University. Information provided by participants will be treated as private and confidential. It is not possible to provide a 100% guarantee of confidentiality because information generated through research activities is not legally privileged. However, Torrens University will take all reasonable steps to protect your personal information. This includes storing and managing data in accordance with the _Australian Code for the Responsible Conduct of Research._ The following exceptions or special considerations apply to this project:

Note if there are any applicable considerations (e.g. – in focus groups, anonymity is not possible).

The information generated as part of this research project may be disseminated through public statements or publications, including assignments and theses, reports, conference presentations and refereed journal articles. Data will be aggregated and summarised before being reported. Participants will be described using pseudonyms and will not be identified as individuals, occupants of particular positions or members of specific organisations. The following exceptions or special considerations apply to this project:

Note if there are any applicable considerations (e.g. – in qualitative research using a small number of case studies, it may be possible to identify participants).

Your participation in this research project is voluntary. You should feel no pressure or compulsion of any kind to participate. If you change your mind about participating, you are free to withdraw at any time during the research project without providing an explanation. You may also ask the researchers to return or dispose of any data generated from you at any time (unless it is not possible to disaggregate your data from the rest of the data). The following exceptions or special considerations apply to this project:

Thank you for your interest and participation. Please ask the researchers if you have any questions or concerns about your participation.

Principal Investigator:………………………………………………………………………………………

Email:………………………………………………………………………………………

Investigator conducting data collection:…………………………………………………………………………

Email:………………………………………………………………………………………

If you have any concerns regarding the ethical conduct of the study, please contact:
Research Officer, Torrens University Australia, Tel: +61 8 8113 7801
Email: vcoram@laureate.net.au

Name of Participant:………………………………………………………………………………………….

Date of Birth (you must be over 18 to sign this form):…………………………………………………….

☐ I consent to participate in the research project described above.

☐ I DO NOT consent to participate in the research project described above.

If applicable:

☐ I also consent to be audio recorded.

☐ I DO NOT consent to be audio-recorded.

☐ I also consent to be video-recorded and/or photographed.

I DO NOT consent to be video-recorded or photographed.

Signature:………………………………………………. Date:………………………..

Appendix E: Proposed semi-structured interview questions for academic developers

Anticipated Themes: sample questions

Academic Developers' understanding of their roles

1. How long have you been working in your current role?

2. Do you work within a central learning unit or within a faculty? To what extent is this important to your work?

3. How would you describe your role in academic development?

4. What is the main focus of your role?

5. How closely does your actual academic development practice relate to your formal job description?

Professional development practices

6. What types of professional development do you offer to academics?
    Are the PD session usually compulsory or voluntary?

7. How often do you conduct professional development sessions (workshops/one on one)? How effective are these sessions?

8. What format do your professional development sessions take? Online, face to face, blended?
    Which format works best, in your opinion? Please explain.

9. Can you describe a typical professional development session that you deliver?

10. What is the main pedagogical focus of the professional development you deliver?
    e.g., general teaching methods, technological tools, online training resources, LMS training etc.

Effectiveness of professional development practices in higher education

11. To what extent do you think the professional development you offer to academics enhances their face-to-face, online or blended teaching practice?

12. What is the main challenge or challenges you face in delivering professional development?
    How do you address these challenges?

13. Do you think academics generally feel positive or negative about the professional development sessions they attend?

What, in your opinion, are the main factors that affect academics' attitudes to professional development?

14. Do you have a formal feedback process as a follow up to the professional development you deliver?

    What kind of feedback from teachers is the most common?

    Do you usually feel academics' feedback is accurate?

15. To what extent would you relate the varying degrees of success of academics' blended teaching practices with the professional development they attend?

Barriers and enablers to successful professional development delivery

16. What training have you received to prepare/qualify you for your role in this field?

17. Do you think you have the correct skill set to carry out your role effectively?

18. How satisfied are you in your role? In what way could your role be improved?

19. Are you provided with sufficient support from your university so you can carry out your role satisfactorily? Please explain.

20. What type of training/upskilling do you have access to as an Academic Developer? Can you give an example of an effective training session you have completed recently?

Appendix F: Online Blended Learning Survey

PhD Research Blended Learning Survey

Q1: Gender

◯ Male   ◯ Female   ◯ Would rather not disclose

Q2: What is your age bracket?

◯ 18-25   ◯ 26-34   ◯ 35-54   ◯ 55-64   ◯ 65 or over

Q3: At which university do you teach?

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Q4: In which sector do you teach?

◯ Higher Education   ◯ Vocational & Educational and Training (VET)

Q5: In which field do you teach? Please indicate if you teach in more than one discipline. If you teach in a discipline not listed, please indicate below.

☐ Health   ☐ Education
☐ Science & Engineering   ☐ Management, Social Sciences & Commerce
☐ Humanities & Languages   ☐ Music
☐ Architecture, Art & Design   ☐ Criminology & Law
☐ Environmental Studies   ☐ Information Technology

Other

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Q6: How many years teaching experience do you have?

○ less than 5   ○ 6 to 10   ○ 11 to 15   ○ 16 to 24   ○ more than 25

Q7: How often do you use technology in your teaching? Please add any further comments.

○ never   ○ a few times a year   ○ once a week   ○ a few times a week

○ every day

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Q8: How often do you use technology for organising and managing your course? Please add any further comments.

○ never   ○ a few times a year   ○ once a week   ○ a few times a week

○ every day

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Q9: For what purpose do you use technology at work? If you use technology for a purpose not listed, please add.

☐ To adapt to a changing educational environment
☐ To keep up with my colleagues
☐ To meet student expectations about technology
☐ To satisfy university requirements
☐ To enhance my face to face teaching
☐ For course management/organisation
☐ To provide a more flexible learning environment for students
☐ To present course content in a more interesting way
☐ All of the above
☐ None of the above

Other

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Q10: Which of the following technological tools within your university's learning management system do you use in your face to face teaching? If you use other LMS tools not listed below, please add them below.

☐ Announcements   ☐ Discussion Board   ☐ Assignments   ☐ Quizzes/Surveys
☐ Turnitin   ☐ Collaborate   ☐ Mashups   ☐ Blogs
☐ Wikis   ☐ Course links   ☐ Grade Centre ☐ E-books
☐ Voice Thread   ☐ Portfolios   ☐ Lecture capture ☐ Learning Analytics

Other

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Q11: Do you use any other technological tools apart from those built into your university's learning management system in your face to face teaching? If so please list them below. (e.g. Facebook, You Tube, Google docs, quizz software)

◯ Yes   ◯ No

Other tools

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Q12: In your current teaching, to what extent do you use technology to do the following things?
If you have any other comments, please add them below.

	not at all	a litttle	moderately	extremely
Assist students with areas of difficulty	◯	◯	◯	◯
Achieve course learning outcomes	◯	◯	◯	◯
Present ideas in different ways	◯	◯	◯	◯
Design innovative learning activities	◯	◯	◯	◯
Develop more authentic assessment tasks	◯	◯	◯	◯
Encourage more autonomous learning	◯	◯	◯	◯
Reinforce core concepts	◯	◯	◯	◯
Allow more face to face time with students in class	◯	◯	◯	◯

Comments

_____

Q13: How important are the following factors in enabling you to use technology in your face to face teaching? If there are other important factors, please list them.

	not at all important	somewhat important	very important	don't know
Professional development	◯	◯	◯	◯
Time to upskill	◯	◯	◯	◯
Technical support	◯	◯	◯	◯
Support from management	◯	◯	◯	◯
Funding	◯	◯	◯	◯
Better equipped teaching spaces	◯	◯	◯	◯

Other

_____

Q14: How would you rate the following types of professional development to the use of technology in your teaching? Please add any other types of useful professional development.

	not at all useful	somewhat useful	very useful	don't know
Internal workshops	○	○	○	○
External workshops	○	○	○	○
One on one sessions	○	○	○	○
Small group training	○	○	○	○
Conferences	○	○	○	○
Advice from colleagues	○	○	○	○
Formal programs or courses	○	○	○	○
Online training (e.g. You Tube)	○	○	○	○

Other

Q15: To what extent do you agree with the following statements? Please add any other relevant comments.

	not at all	a little	moderately	extremely
Technology is useful for supplementing face to face teaching	○	○	○	○
Technology together with face to face teaching is useful for enriching students' learning experiences	○	○	○	○
Technology enhances face to face teaching	○	○	○	○
It is easy to use technology with face to face teaching	○	○	○	○

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I don't worry about things going wrong with technology in my face to face teaching	○	○	○	○
It's easy to integrate technology into course design	○	○	○	○
Students expect me to use technology with my face to face teaching	○	○	○	○
Most of my colleagues are enthusiastic about using technology with face to face teaching	○	○	○	○
The university expects me to use technology with face to face teaching	○	○	○	○
I am confident that I can match technologies to core content and concepts	○	○	○	○
I am satisfied that my face to face teaching achieves course learning outcomes	○	○	○	○
The professional development available to me allows me to use technology together with my face to face teaching	○	○	○	○
Technology together with face to face teaching is useful for increasing efficiency	○	○	○	○
The infrastructure in the university makes it possible for me to use technology with face to face teaching	○	○	○	○
Technology allows me more time to spend with individual students in my face to face teaching	○	○	○	○

Further Comments

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Q16: Some participants may be asked to take part in a face to face interview of approximately 1 hour duration. Please indicate if you would be available for an interview.

◯ Yes   ◯ No thanks

Q17: If you have agreed to participate in an interview, please supply your preferred contact details.

Name	
Email	
Mobile Phone	
Work Phone	

End of survey.
Thank you!