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University professional staff in collaborative *third space* environments: A multiple case study of the Australian and Singapore campuses of one university

Thesis submitted by

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For the degree of Doctor of Philosophy (Education)

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James Cook University

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To my parents, who would be so proud of me.

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Statement of the Contribution of Others

Supervision: Professor Patrick Danaher and Professor Abhishek Bhati

Editorial support: Professor Patrick Danaher

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Declaration of Ethics

The research presented and reported in this thesis was conducted in accordance with the National Health and Medical Research Council (NHMRC) National Statement on Ethical Conduct in Human Research, 2007 (updated 2015). The research study proposal received human research ethics approval from the JCU Human Research Ethics Committee (Approval Number H7071).

Abstract

University professional staff – a heterogeneous group with diverse talents and skills – comprise more than 50 per cent of Australian higher education staff, and constitute similar proportions in the countries in Asia. Contributions of professional staff to addressing higher education challenges have been increasingly investigated over the last decade (Bossu, Brown, & Warren, 2018; Graham, 2018; Graham & Regan, 2016; Gravett, 2018), with growing evidence of the participation of professional staff in the spaces of collaborative engagement, also known as *third space* environments (Whitchurch, 2018).

While the disruption caused by the COVID-19 pandemic continues to challenge and redefine the very foundations of the universities across the world, higher education perseveres in delivering its mission, with the support and dedication of the professional staff who work collegially with academic colleagues navigating various organisational, professional and cultural boundaries to do what needs to be done for students and their respective universities. By the same token, the university community has limited access to professional staff's wide range of skills and expertise, which leads to diminished opportunities to involve them in cross-boundary collaborative projects (Graham, 2018; Ryttberg & Geschwind, 2017). Lower than desirable participation of professional staff in university collaboration presents an impediment to growing the overall university collaborative capital that is required to achieve the university goals and to address the higher education challenges.

Involving one Australian regional university with campuses in Australia and in Singapore, this qualitative doctoral study explored five diverse cases of professional and academic staff *third space* collaboration. These cases were selected from a wide range of organisational contexts, drawing on a typology of the university *third space* environments (Whitchurch, 2012; 2018). The outcomes of each collaborative project were examined

through the analytical lens of the *Boundary Crossing Learning Mechanisms* (Akkerman & Bakker, 2011a; Akkerman & Bruining, 2016), with a particular focus on professional staff's express needs for *autonomy*, *competence*, including the overarching cross-boundary competence, and *relatedness* (Ryan & Deci, 2000, 2017), in order to illuminate the factors that contributed to the projects' success and, consequently, to increase understanding of what professional staff require to be more inclined to collaborate with their academic colleagues.

A novel concept of "*Basic Organisational Needs*" assisted with articulating the critical findings of this research: despite differences in the expression of the *basic psychological need* for *autonomy* across staff working in Australia and Singapore, for a project to achieve transformation and for professional staff to be motivated towards cross-boundary collaboration, all three *basic psychological needs* and a connecting cross-boundary competence were required to be present. In addition, appreciation and integration of the diversity of collaborating staff, and a dialogical approach to boundaries, were necessary for successful collaboration. It was concluded that, if a university creates an environment where these three conditions are met, staff connectedness, and visibility of and higher access to professional staff skills and talents become increased, which leads ultimately to professional staff feeling motivated to work collaboratively across various boundaries.

The developed "*Conceptual framework of the university* third space *professional cross-boundary collaboration*" is intended to improve university practice by providing recommendations for the whole university community (including professional staff) about how to increase professional staff collaborative cross-boundary engagement. The insights acquired in this doctoral study advance the discussion of professional and academic staff working together and providing a new intercultural perspective on the concept of university *third space*. The future of the university *third space* collaboration calling for staff's sustained agency and *transformative capacity* (Giddens, 1984, 1986, 1991) becomes more critical as

higher education rapidly changes its modalities to accommodate new local and global conditions.

Key Words: university *third space*, higher education, university cross-boundary collaboration, university professional staff, professional and academic staff, *boundary crossing learning mechanisms*, Self-Determination Theory, multiple case study, pragmatic constructivism

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Abbreviations

AQRS	"*Adaptive Qualitative Research Synthesis*"
ATEM	Association for Tertiary Education Management
BCLMs	*Boundary Crossing Learning Mechanisms* (Akkerman & Bakker, 2011)
CAQDAS	Computer-assisted qualitative data analysis software
MBCF	*Multilevel Boundary Crossing Framework* (Akkerman & Bruining, 2016)
SDT	Self-Determination Theory (Deci & Ryan, 2000)
TU	Tropical University (the way that the site of research is referred to in this thesis)
TUA	Tropical University, Australian campus - one of two research sites
TUS	Tropical University, Singapore campus - one of two research sites

Chapter One – The research rationale and thesis structure

"…I am wasting my time if I fail to say something new and different." (Umberto Eco, *How to write a thesis*, 2015, p. 82)

1.1 Introduction: The researcher's motivation

The idea for this doctoral research into professional staff[1] collaboration[2] in the university *third space* environments came about when the researcher started her work in 2015 as a College Manager in a regional Australian university with an international campus in Singapore. The university at that time had just completed a significant restructure that profoundly influenced relations between professional groups and individuals. It appeared to have dismantled old organisational boundaries and created new ones, which were being seen as new opportunities by some, while being interpreted by others as critical fault lines that had destabilised the existing organisational culture. It has been a fascinating experience to be both a witness and an active practitioner working in those *third spaces* – understood in this thesis as spaces of continuously changing roles and identities, routinely crossing boundaries between professional and academic domains (Whitchurch, 2008a, 2008c) – creating and realising diverse ideas of multiple actors and re-imagining forms of staff interaction and collaboration.

[1] Professional staff is a broad group of university professionals who are employed as non-academics (Davis, 2012). A further explanation of the term and how it relates to the "academic staff" term is presented in Section 1.3 of this chapter.

[2] In higher education and in universities, in particular, collaboration refers to a process of collective working, learning and sharing among educational participants engaged in teaching, learning and research (Pham & Tanner, 2015a). Similarly, in this thesis, university collaboration is defined as a process of collective pursuit of university goals through the engagement of staff of various work profiles (academic and professional). The emphasis is therefore on the cross-boundary elements of collaboration – i.e., collaboration across professional domains, cultures, and physical and notional spaces of work.

The experience of leading a team of 15 professional staff in one college (referred to previously as a "faculty") who, including the researcher-practitioner and the author of this thesis, have been navigating various professional and cultural boundaries as part of their everyday university life of working with their academic colleagues, created both an idea and an opportunity for this doctoral research. The broader backdrop of the local and global changes of the past decades within Australian and Singaporean higher education generated a need and an imperative to explore the new ways that professional staff members work together with academics, as well as the new approaches to re-interpreting their own professional identities within the complex spaces in which their collaboration occurs.

Having learnt about a number of university collaborative projects that involved the creative and innovative work of both professional and academic staff who were interpreting, navigating and transcending various professional and organisational boundaries presented a way of examining staff collaborative engagement through the lens of a multiple case study. The study included the voices of individual professional and academic staff members working together in cross-boundary *third space* environments while maintaining the main focus on professional staff, their experiences and perceptions of working in *third spaces*, and the factors that would make professional staff more inclined to working collaboratively.

1.2 The research background and significance

After the publication of a co-authored discussion piece about the university *third space* and university professional staff navigating these spaces (Veles & Carter, 2016), the feedback received by the researcher emphasised the increasing importance of this topic for people working in the higher education sector. That feedback also revealed that the university professional staff often identified themselves as *third space* practitioners, having experienced both the need and the willingness to cross the traditional university divide between

professional and academic spaces. Professional staff were interested to learn how to deal with the complexities of these insufficiently articulated and under-interpreted spaces.

Despite the growing body of research literature on the topic of the university *third space* staff collaborative engagement (Beckmann, 2018; Botterill, 2018; Davis, 2018; Davis & Graham, 2018; Gravett & Winstone, 2018; Hobson, Knuiman, Haaxman, & Foster, 2018; Silvey, Pejcinovic, & Snowball, 2018; Stoltenkamp, van de Heyde, & Siebrits, 2017; Veles, Carter, & Boon, 2019), the landscape in which higher education and, specifically, universities operate continues to change rapidly and is being defined by volatility, uncertainty, complexity and ambiguity (Davis, 2018; Davis & Graham, 2018; Johansen, 2012). In this highly dynamic organisational and policy environment (Goedegebuure & Schoen, 2014), collaborative spaces and the modes of working together appear to be continuously in need of reconceptualisation and nuanced articulation in order to prepare staff for the current and emerging professional challenges that define the Australian and global higher education landscapes. Increasing global competition, technological advances enabling mobility of students while decreasing the needs for academic staff to travel to international campuses and the overarching defragmentation of the higher education providers are just a small number of these challenges. University professional staff, being a group that is significant in number and growing in complexity in the university community (Bossu, & Brown, 2018), need to position themselves to contribute actively to solving these higher education challenges. Their positionality can be expressed and enacted through raising their professionalisation, mastering their jobs, and being able and daring in challenging organisational boundaries, as opposed to being defined by and confined to the traditional spaces of support and administration, which are articulated in organisational policies and procedures (Goedegebuure & Schoen, 2014).

The “creative energies” (Davis, 2018, p. 262) of all university staff are and will be required to work collegially on solutions for current and further emerging professional challenges. The importance of professional staff in contributing to seeking solutions to the university challenges identified above has been articulated by professional organisations, such as the Association for Tertiary Education Management (ATEM), which has been leading the Australian, and lately, Australasian tertiary education sector in professional management for the last 43 years. The recognition of professional staff contributions has been expressed at the level of professional organisations (e.g., ATEM in Australia and New Zealand, the Association of University Administrators in the United Kingdom and the Canadian University Boards Association in Canada), and by a small body of practitioners’ academic research. This recognition has, regrettably, not decreased the problem of limited involvement and engagement of professional staff in various spheres of university life (Graham, 2018; Ryttberg & Geschwind, 2017). Their skills, energy and diverse talent are yet to be fully activated, and one way to achieve that activation is involving professional staff in university-wide collaborative projects. This thesis acknowledges the external (institutional structure, power and control) and internal (individual motivations, and willingness to enter what is often perceived as contested spaces) challenges that professional staff face when participating in or leading collaborative projects.

Current research about complex collaboration – i.e., collaboration across time, distance, organisational borders and cultures (Beyerlein & Johnson, 2004; Nemiro, Hanifah, & Wang, 2005; Veles, Boon, & Carter, 2017; Veles et al., 2019) – has a strong focus on the organisational benefits of collaboration. For example, in the United Kingdom, Australian and United States universities, collaboration across academic and professional spheres of activity is acknowledged as being critical for engaging students and for helping them to succeed in their learning (Eddy, 2010; Graham, 2018; Graham & Regan, 2016; Parkes, Blackwell

Young, Cleaver, & Archibald, 2014; Quinlan, 2011; Thomas, 2012). This research is, however, lacking in an exploration of how university professional staff working on various cross-boundary projects navigate the challenges of crossing multiple boundaries pursuing various goals of collaboration. As research demonstrates, the needs that professional staff in universities in Australia and the United Kingdom, in particular, perceive as being important to be satisfied in order for them to maintain positive attitudes in relation to their jobs and to continuing to work in the universities have been investigated (Davis & Graham, 2018; Graham, 2013a; Regan & Graham, 2018). It was identified that all three *basic psychological needs* for *autonomy, competence* and *relatedness* (Ryan & Deci, 2000, 2017) are required to be fulfilled for professional staff to feel happy in their work environments. At a granular level, it is important to uncover which of these basic needs and "boundary-crossing competence" (Walker & Nocon, 2007, p. 191) are perceived by professional staff as important for them to be more inclined to work together with their academic colleagues, occupying various new spaces and crossing multiple boundaries. The discourse of the shifting and blurring of professional boundaries (Allen Collinson, 2009; Birds, 2015; Henkel, 2010; Whitchurch, 2006a, 2007, 2008a), which developed into the distinct concept of the university *third space* (Whitchurch, 2008c, 2009b, 2012, 2015), made it possible to discuss new spaces, professional staff changing roles and identities, and their distinctive contributions to the university that are not defined by such boundary objects (Star, 2010; Walker & Nocon, 2007) as organisational divisions and position descriptions.

In the context of the global exchanges of professional practices, inter-university collaboration and the prevailing complexity of the local/global nexus, the existing research appears to be parsimonious in accounting for the intercultural collaboration between university staff. In May 2016, Universities Australia (https://www.universitiesaustralia.edu.au/), a peak body representing Australian universities,

published a media release that highlighted the importance of Australia's and Singapore's long-term education partnerships. Initiatives were proposed to strengthen the education ties and innovation between the two countries (Universities Australia, 2016). Despite the evidence of the considerable connections between the Australian and Singaporean education sectors, there is a significant gap in intercultural research within professional *third space* contexts in the Asia-Pacific region.

In summary, university professional staff collaborating across organisational, professional and cultural boundaries became the central concern of this doctoral research. Given the identified hiatuses in the university professional staff cross-boundary collaboration research, this thesis has the potential to provide a substantial and nuanced theoretical and practical understanding of what is perceived by professional staff members as important for them to be willing to work together with their academic colleagues. The main premise of this research is that it is important to contribute to the existing academic body of knowledge about the university *third space* environments while simultaneously achieving a clear, pragmatic purpose of contributing to university practices around cross-boundary staff collaboration.

1.3 Addressing the research problem and articulating the research questions: Approach and attainment

Formulating the research problem of enabling university professional staff to collaborate across multiple boundaries in countries with dissimilar cultures and higher education systems (Graham, 2018), and the significance of this problem in the context of increasing local and global higher education challenges being manifested in the universities worldwide (Goedegebuure & Schoen, 2014), and within the Asia-Pacific region in particular, led to the crystallisation of the research questions. Originally, the first research question was conceived as the main one: "How is the concept of the university *third space* understood within a broader local/global dialectic?" After the exploratory first phase of the qualitative

enquiry had been completed, the centrality of the actors and their (inter)actions came to the fore. While the spaces of these interactions in the context of local and global higher education challenges were interpreted as important, it was the actual collaboration across boundaries, and the expressed needs and perceptions of professional staff members working on the university projects, that became critical in addressing the research problem. The findings of Phase One of the research therefore pointed towards the legitimacy of assigning equal weight to all three research questions, and they became reformulated as follows:

> *Research Question 1: How is the concept of the university* third space *understood within a broader local/global/glocal context?*
>
> *Research Question 2: How do university professional staff members in a single university across Australia and Singapore see themselves vis-à-vis* third space *collaborative work?*
>
> *Research Question 3: What can be learnt from investigating the intercultural, cross-campus and individual variances in professional staff members working together across boundaries?*

Addressing the second and third research questions in Phase Two (the multiple case study) of the research provided a bridge to new knowledge that was presented through practical recommendations for professional staff and the university leadership, which focused on the areas of *basic psychological needs*' satisfaction, providing *third space* environments conducive to working together, recognising the diversity of the multiple actors and emphasising cross-boundary learning to achieve the transformational outcomes of the collaborative projects for the benefit of professional staff and the university at large. These recommendations, which are elaborated in Chapter Eight of this thesis, provide potentially useful insights for other universities in Australia and Singapore, and for universities that operate international campuses in Asia through informing their cross-boundary collaboration

practices, and by assisting in designing learning and development for professional staff to help them to be more collaboratively inclined, as well as helping the university to use more effectively the collective intelligence of diverse university actors.

The approach taken to analysing the research data in this study was methodologically novel. "*Adaptive Qualitative Research Synthesis*" (AQRS) was a modification of the original Noblit and Hare's (1988) meta-ethnography. In contrast to that traditional meta-ethnography, the AQRS approach was applied to the primary data, which reduced a number of traditionally acknowledged biases of the qualitative research syntheses, and which produced a tighter alignment between research findings and the implications for higher education professional practice, which is a goal of applied higher education research (Savin-Baden & Major, 2010).

This thesis presents an opportunity to advance theoretical knowledge contributing to a number of academic fields, with organisational sociology, psychology and higher education research being the main three such fields. The novel concept of "*Basic Organisational Needs*", developed in the thesis, presents an integrated view of the critical factors for, firstly, enabling university professional staff collaboration; and, secondly, creating environments conducive to transformative, cross-boundary, collaborative projects. The concept became a building block of the *"Conceptual framework of the university* third space *professional staff cross-boundary collaboration*", which was also developed in this thesis.

In addition to the important terms and concepts that are explicated throughout the thesis, there are two terms that need to be highlighted in this chapter. Being the main focus of the research, the first such term is the university *professional staff*. The term was used in the interviews at both the Australian and the Singapore campuses, and yet it needed to be clarified for the Singaporean participants. Professional staff are those individuals who are employed as non-academics and describe the staff members who provide a wide range of functions for students and academics, including administrative, academic, laboratory and

technical, student support and library information, information technology and infrastructure services (Szekeres, 2011). In Australia, through the efforts of ATEM members, and as a result of the higher education sector-wide consultation, the *professional staff* term was formally established as the preferred title for this group of university actors (Graham, 2012). In the United Kingdom, *professional staff* are also referred to as *administrative and support staff* (Bossu, Brown, & Warren, 2018), whereas in the universities in Asia non-academic staff are usually grouped as *administration*.

The increasing professionalisation of staff, and the emergence and rapid development of new services and activities that are not part of what are traditionally described as "administrative" or "managerial" (Stage & Aagaard, 2019) work, may render the conventional grouping of these actors into a homogeneous category inadequate and no longer reflecting the reality of contemporary higher education. It is therefore solely for the purpose of consistency and clarity of reference that the term *professional staff* has been used in this thesis.

The second term applied to this research that requires an explanation at the beginning of the thesis is *intercultural*. It is important to elaborate the distinction between cross-cultural and intercultural in this study's research focus. The central concern of cross-cultural research is the direct identification of and comparison between units and processes within social investigation (Pole, 2015). If culture is perceived not as one of the elements of the research design, but rather through its role and significance in human (inter)actions, and, more specifically, in organisational and inter-group relations, then the interpretive power of the concept of culture comes to the fore. Following Spencer-Oatey's (2001) definition of culture as "a fuzzy set of attitudes, beliefs, behavioural norms, and basic assumptions and values that are shared by a group of people, and that influence each member's behaviour and his/her interpretations of the 'meaning' of other people's behaviour" (p. 4), this thesis privileges the

discussions of the processes that give rise to interactions between individuals and between groups of individuals (i.e., professional and academic staff across the Singapore and Australian campuses), and it advances a social construction of meaning. Interpretive and functional views of culture that "contribute towards a bigger picture and allow a degree of comparison between the locations in which specific cultures might be located" (Pole, 2015, p. 97) are closely related to the tradition of intercultural psychology. A focus on dialectical pluralism (Stefurak, Johnson, & Shatto, 2016) is grounded in the philosophical premise that allows successful engagement with diversity and poly-centricity, assigning an equal value to the lived experiences and voices of individuals from both similar and dissimilar cultures (Staeuble, 2005). Applying this intercultural frame to this qualitative research has been generative in producing a synthesis of individual interrelations between professional and academic staff working on cross-boundary projects, which is characterised simultaneously by breadth and granularity.

1.4 A brief outline of the thesis chapters

After having provided the overview of the research field, the emergence of the research problem and how it was addressed in this thesis (including the articulation of the study's three research questions), the final section of this chapter describes the structure of the thesis to navigate the reader through this substantive body of writing. This section prefaces the remaining seven chapters of the thesis with a table that signposts the chapters that align with the discussion of specific research questions. This signposting, which is additional to the chapter structuring, is necessary as the research design provided not only an opportunity for a deep and rich investigation of the researched university's professional and academic staff insights, but also a certain complexity in the logical presentation of the findings. Phase One of the research was an exploratory phase; themes developed from the Phase One data provided material that was used to shape and hone the research questions,

and to assist with selecting the cases for Phase Two, which was a multiple case study. The questions that were asked at each phase were dissimilar, and therefore did not involve direct comparison between phases. Neither was such a direct comparison sought or necessary. Acknowledging Phase One's contribution through answering the first research question and shaping the main part of the research study, the themes derived from analysing the Phase One data are presented only as a summary at the beginning of Chapter Five, as a segue to the detailed thematic analysis of each of the five cases of Phase Two later in the same chapter.

In Chapter Two, the review of the relevant literature is developed from a broader contextual discussion of the topic of the higher education sector and universities on the local/global continuum. The analysis of the development of the professional and academic staff collaboration debates is presented through the lens of the university *third space* concept as well as in their chronological context. The concluding section presents an alignment of the identified research gaps with the research questions informed by these gaps.

In Chapter Three, theoretical and conceptual frameworks conducive to this research are presented. The chapter begins with a brief overview of a range of theories that were considered important and potentially generative for this study. It advances to the detailed discussion of one particular theory (Self-Determination Theory, including the notion of *basic psychological needs*) and one conceptual foundation (*Boundary Crossing Learning Mechanisms* within the *Multilevel Boundary Crossing Framework*). In the chapter conclusion, the reader will find a diagram presenting the alignment of the themes derived from the first round of engagement with the literature, the research gaps, the research questions informed by those identified gaps and the underpinnings of the theoretical and conceptual dimensions of the study.

Chapter Four provides details of all elements of the research design and of the qualitative case study methodology that was used for this research. There are discussions of

the researcher's axiological position and of the ethical considerations that guided the research through the research project, as well as comments on the limitations of the research design applied to this research.

Chapters Five, Six and Seven are the data discussion chapters designed to be accessed in succession, as they represent the product of the AQRS framework applied to the analysis (*first order* themes), synthesis (*second order* themes) and interpretation (*third order* themes) of the data findings in their unity. Table 1.1 is intended as a guide that points out in which data analysis chapters the reader will find discussions of the findings pertaining to each of the three research questions.

Table 1.1

Writing Production Guide: The Alignment among the Data Analysis Chapters, the Respective Research Questions and the Discussions of the Findings across the Two Phases of the Research: Analysis, Synthesis and Interpretation

Chapter	Research question	Research Phase and Chapter Synopses
Chapter Five – Research findings: Analysis	Question One. How is the concept of the university *third space* understood within a broader local/global/glocal context?	Analysis of the Phase One and Phase Two interviews and development of *first order* themes.
Chapter Six – The cross-case and cross-phase synthesis: Developing *second order* themes	Question Two. How do university professional staff in a single university across Australia and Singapore see themselves *vis-à-vis third space* collaborative work?	Synthesis of cross-case and cross-phase findings and development of eight *second order* themes.
Chapter Seven – Towards building the “Conceptual framework of the university *third space* professional staff cross-boundary collaboration”: *Third order* themes – interpretations and recommendations	Question Three. What can be learnt from investigating the intercultural, cross-campus and individual variances in professional staff members working together across boundaries?	Consolidation of eight *second order* themes into three composite (*third order*) themes; interpretation of the three composite themes in relation to the literature and the theoretical/ conceptual frameworks; development of the set of recommendations and the conceptual framework

Chapter Eight is the final chapter of the thesis, which covers the researcher's motivation for research alongside the summary of the research achievements and the study's contributions to knowledge. The research outcomes are discussed in the light of their broader significance in the context of the events of the COVID-19 pandemic. The chapter concludes by outlining the research caveats, which provide new insights and ideas for future research undertakings.

Chapter Two – The review of the literature

"There remained the problem of cutting down a very fat archive to manageable dimensions, and more important[ly], outlining something in the nature of an intellectual order within that group of texts without at the same time following a mindlessly chronological order." (Edward Said, *Orientalism*, p. 16)

"Higher education research, while a specialist and late developing field, has reached a level of maturity such that researchers have recently been endeavouring to summarize and synthesize what has been learnt." (Tight, 2018, p. 1)

2.1 Introduction: The context and three main themes

Arguably, the full potential of university professional staff is untapped (Ryttberg & Geschwind, 2017). There is also evidence of scarce research into the effective use of professional staff talent – in particular, across countries with dissimilar higher education systems and national cultures (Graham, 2018). In the Australian context, recent statistical data about the Australian higher education workforce reported 57.3% of staff being classified as occupying other than academic roles (Department of Education and Training, 2018). This amount represented a 2.7% increase in professional and support staff from 2017. These figures are consistent across the higher education sector in the United Kingdom, other European countries and the United States (Bossu et al., 2018).

By contrast, there appears to be no equivalent national data repository for Singapore or other East Asian universities. There are, however, data for one university in Singapore: Nanyang Technological University (NTU). NTU presented data for the numbers of staff working at the university in 2019 (https://www.ntu.edu.sg/AboutNTU/CorporateInfo/FactsFigures/Pages/staffpopulation.aspx).

According to these data, 18% of staff were referred to as supporting the faculty, with management constituting 21%, and the remaining 61% classified as faculty academic and research staff. The figure (18%) representing professional and support staff at NTU in 2019 was considerably lower than the equivalent percentages of such staff in Western universities. Nevertheless, at almost one-fifth of the total staff numbers, it constituted a significant number of staff at NTU.

Alongside the increase in numbers, professional services staff composition has been changing with the specialised and highly educated middle management professionals gradually replacing clerical service workers (Bossu & Brown, 2018; Stage & Aagaard, 2019; Szekeres, 2011; Szekeres & Heywood, 2018). This is predominantly explained by the emerging technological changes and their impact on how various tasks are being performed currently compared with the past (Szekeres, 2011).

From the academic staff perspective, a similar and increasing diversification of the academic workforce (Marini, Locke, & Whitchurch, 2019) has merged with a countervailing process of global staff interconnectedness that has led to increased collaboration between academic and professional staff (Botterill, 2018; Graham, 2018; Graham & Regan, 2016; Pham & Williamson, 2020; Pham & Tanner, 2015b; Veles et al., 2019), thereby creating spaces of hybrid – professional and academic – activities (Whitchurch, 2009b). There is a large body of evidence describing the contribution that professional staff make to various university processes and projects through working in those spaces of hybridity (Botterill, 2018; Graham & Regan, 2016; Ryttberg & Geschwind, 2017; Silvey et al., 2018; Whitchurch, 2018), thus demonstrating that synergistic effort from all university communities is required to solve current and emerging higher education challenges.

Although this substantial cohort of staff is gradually being recognised for the contributions that they provide to the success of the university and of its wider community

missions (Bossu & Brown, 2018), they continue at times to be considered outside the institutional intellectual capital (Paldam, 2014; Rhoades, 2010a; Rhoades & Sporn, 2002; Ryttberg & Geschwind, 2017), which leads to the persisting perception of invisibility being attributed to the university professional staff (Birds, 2015; Botterill, 2018; Szekeres, 2011; Veles & Carter, 2016). In the context of the global(ised), increasingly complex, perpetually changing and technology-driven higher education sector, the effective use of all groups of staff is required to increase the ability of universities to harness their collaborative capabilities that improve university performance, and that enhance its collaborative capital.

Professional staff cross multi-level boundaries to work together with their academic colleagues, co-creating the spaces of collaboration, collegiality and, at times, conflicted professional identities and a reframed notion of professionalism (Birds, 2015; Botterill, 2018; Graham, 2012; Veles & Carter, 2016; Whitchurch, 2015, 2018). These spaces are being articulated as university *third space* environments (Whitchurch, 2004, 2008c, 2009b, 2012, 2015, 2018; Whitchurch & Gordon, 2009), and the concept of the university *third space* provides a useful lens to explore professional and academic staff collaboration in order ultimately to discover what, in the context of one Australian university with its international campus in Singapore, makes professional staff more willing and inclined towards cross-boundary collaboration, thereby being fully activated and included in achieving university-wide goals.

With this research purpose in mind, the following discussion of the explored literature sources was aimed not only at investigating the gaps in the existing research, but also at refining the topic of this research and honing the research questions (Yin, 2014) to ensure that the study achieved the expected outcomes. The investigated literature included a broad range of sources, such as studies of globalisation and higher education, complemented by research in sociology, psychology and organisational behaviour.

The inter-disciplinary and boundary-crossing nature of higher education research as a research field (Alasuutari, Bickman, & Brannen, 2008; Harland, 2012) predefined the approach to selecting literature sources that were considered to have high potential to inform the nexus of research and practice in this applied research. The narrative background review of the literature (Doyle, 2003) was designed and implemented with the purpose of presenting a case for the research through making connections across a number of studies in the higher education field and cognate fields and disciplines (e.g., organisational psychology and sociology), thereby locating the gaps and key points of debates rather than systematically synthesising all literature findings (Sandelowski, Barroso, & Voils, 2007). The other purpose of the review was to connect past and emerging research on the topic of enquiry in a novel way that would open up generative discussion rather than confine the search solely within chronological, geographical or other such boundaries. There is an intention in the future research, however, to approach the literature exploration in a systematic way considering the fast-growing body of empirical studies that is currently being published.

The literature search that focused on the main topic of the study (university professional staff and their collaboration with other university communities) encompassed a careful exploration of relevant articles published in selected academic peer-reviewed journals where the topic of university professional staff is covered extensively (Tight, 2003, 2018): the *Asia Pacific Education Review, Asia Pacific Journal of Education*, *Higher Education*, *Higher Education Management*, *Higher Education Policy*, *Higher Education Quarterly*, *Higher Education Research and Development*, *Higher Education Review*, *International Journal for Academic Development*, *Journal of Higher Education Policy and Management*, *Perspectives: Policy and Practice in Higher Education*, *Studies in Higher Education*, and *The Asia-Pacific Education Researcher*.

The geography of studies included articles published primarily in the United Kingdom and in Australia by authors from Europe, Australia, New Zealand and, to a lesser degree, South Africa, and East and South East Asia – i.e., countries where the topics about university staff emerged and continue to be discussed. The timeframe of 25 years was selected somewhat subjectively, although that choice was informed by the time when what appears to be the first article on the topic of the forgotten (later referred to as invisible) workforce (university professional staff) was written by Castleman and Allen (1995). In addition to over 100 scholarly peer-reviewed publications, other explored sources included the edited monographs, edited books and other literature sources (doctoral theses, professional reports, conference proceedings and media publications) published since the 1990s in the English language.

The exploration of journals such as the *Asia Pacific Journal of Education*, *Globalizations*, *Globalisation, Societies and Education* and *Higher Education Research & Development* focused on the wider contextual topics of culture and higher education within the broader context of globalisation. To study boundary literature, collaboration literature and sources on motivation theories, searches in databases like PsycARTICLES within ProQuest, Emerald Insight, ERIC, JSTOR and Google Scholar, augmented by the sources from the reference lists of the accessed publications with the inclusion of the other types of literature (unpublished theses and higher education reports), were used for this review to achieve a comprehensive understanding of the theoretical and conceptual underpinnings of this research. Examination of the accessed sources enabled the development of the key themes that are discussed in this chapter.

The chapter is segmented into the following three parts. Section 2.2 introduces the broad context of this research, which is the dialectic between local and global and its impacts on contemporary universities in Australia and Singapore. Sections 2.3 - 2.5 discuss three

main interdependent themes, which emerged from reading and analysing the literature. These themes are: firstly, university staff collaboration (Section 2.3); secondly, institutional boundaries and how these boundaries reflect the diversity of individuals (Section 2.4); and thirdly, university professional staff debates (Section 2.5) through the lens of the university *third space* and the evolutionary phases of *Contestation, Reconciliation, Reconstruction* and *Transformation* (Section 2.6.1), and from the perspective of the emergent analytical divide (Section 2.6.2). The chapter concludes with a summary of the identified research gaps and the way that these gaps informed and shaped this study's research questions (Section 2.6). Confirmation of the research significance is reiterated by reference to the research gaps that were identified and explored.

2.2 Global/local/glocal context: Contemporary universities in Australia and Singapore

Analysis of the literature about the broad contextual influences that impact on the changes in higher education, Asia-Pacific higher education and the university landscape in particular provided a bridge to the generative discussion of how these changes impact on the debates about the spaces in which professional and academic staff work together, and, more specifically, about how professional staff working in Australian and Singaporean universities perceive their working relationships, their professional identities and their work motivations.

An increasing complexity of the local/global nexus – a local relevance and global excellence agenda shared by universities worldwide – presents a challenge of studying one selected higher education system or one university within national boundaries. Therefore a nation-based, closed conceptual model of a higher education system was found to be problematic as a basis of this research (van der Wende, 2017). As Marginson and Rhoades argued in 2002, "the field lacks a framework for conceptualising agencies and processes that extend beyond the nation state" (as cited in Wende, 2017, p. 19). In addition, while globalisation may have been slowing down (Milanovic, 2016) or even becoming completely

redundant (Gray, 2002) in economic terms, there is nonetheless a continuing increase in global flows – of ideas, knowledge and people – creating an emerging phenomenon of openness (open access, open education resources, open universities, etc.). Such super-convergence of human resources, policies, practices, technology and information (Henkel, 2010; Marginson, 2010; Marginson, Kaur, & Sawir, 2011a, 2011b) provided an impetus for researching university staff professional engagement not as an isolated system within an isolated university, but instead in the richness of their global interconnectedness and diversity. The following sub-sections (2.2.1-2.2.4) develop the connection between the overarching discourse of globalisation, tracing it back to the 1980s, and a more recently emerged concept of *glocalisation* and its reinterpretation as *strategic globalisation* within the context of the Singapore nation-state. The contextual impacts of local/global connection are discussed in application to the development of the higher education sectors respectively in Australia and in East Asia, with the latter focusing primarily on Singapore. The significance of the continuing development of *borderlessness* in higher education is briefly examined in connection with the increasing cross-border interaction between people accompanying the convergence of professional practices, which leads to creating non-traditional and under-explored spaces of individual and professional group collective work and the reshaping of professional identities.

2.2.1 Globalisation: The most ubiquitous discourse

Despite its ubiquity, the highly conflicted and continuously evolving nature of the globalisation discourse does not provide an unequivocal platform for a discussion about university staff collaboration. Globalisation, however, following the logic of Isaac Asimov's (1981) oxymoron, is most likely the only constant change in the society, of which higher education is a key sector. Although the rate of expansion and the depth of proliferation of many globalisation forces are unequal across countries, the general direction of these changes

enables higher education researchers to use the critical lens of globalisation to draw valuable insights from countries as dissimilar as, for example, Australia and Singapore.

Since the first appearance of the term *globalisation* in a published form in 1982 (Robertson, 2014), it has been widely debated, and many definitions exist in the scholarly literature. Some refer to globalisation as a process of *economic integration* transforming into *global integration* (Gopinathan, 1996, 2007). Globalisation is also known as a resolution "of the contradiction between ever expanding capital and its national political and social formations" (Teeple, 2000, p. 9). It is a vehicle for removing the barriers to free trade and for the integration of national economies (Stiglitz, 2002), and *inter alia* it leads to time-space compression (Harvey, 1989; Robertson, 2012). Despite the claims of Featherstone and Lash (1995) that globalisation was a fully-fledged theory, Green (1999) argued that globalisation did not manifest as a rigorous or a properly grounded theory, and subsequently Robertson (2014) described it as a "very fuzzy concept" (p. 454) or a hypothesis. Summarising this plethora of diverse conceptualisations, it is suggested that globalisation presents a distinctive discourse (Koh, 2010) with a number of emerging complementary concepts, and with one of these concepts – *glocalisation* – having a particular significance for the higher education sector and for this research.

2.2.2 Glocalisation: Another universal discourse

The term *glocalisation*, introduced and discussed extensively by Robertson (1995, 2012, 2014), denotes interactions among local, national and global orders. Robertson (2012) claimed that the mission of glocalisation is to eliminate the polarity of local/global within the globalisation problematic, and to resist the hegemony of the global, thus preserving the equal importance of the universal and the particular. While Robertson's (2012) interpretation of glocalisation emphasised the equipotent nature of the local and the global, it did not presuppose a process of the gradual homogenisation of whole cultures and identities. It

pointed out solely that the global and the local are interconnected, and that the spatial dimension takes precedence over the time dimension within the globalisation/glocalisation discourse.

Koh (2010), although supporting Robertson's (2012) argument of spatial primacy and the criticality of the preservation of the *local* in glocalisation, co-advocated with Pieterse (1995, 2013) presenting the imminent hybridisation as a condition of globalisation, which he saw as a natural outcome of what Hannerz (1990) referred to as the increasing inter-connectedness of various cultures in the globalised world. Focusing strongly on the pragmatism of the globalisation/glocalisation process, Koh (2010) introduced the concept of *strategic globalisation*. This concept describes the environment of the persisting influence of the state in Singapore on all social domains, including higher education policy, and on the way that Singapore universities are required to operate. The term also denotes how local responses to globalisation are being enacted within the context of the strong state (Koh, 2010).

2.2.3 Higher education developments: Australia and East Asia (Singapore)

Across East Asian countries, higher education has been developing at different rates and on an uneven scale, with massification presenting an additional challenge for universities already challenged under the competition-driven market conditions (Chapman, Cummings, & Postiglione, 2010). In Singapore, higher education has always been seen as a strategic sector in need of fast expansion to improve the quality of human resources and social capital for continuous and sustained economic growth (Lee, 2010). The need for expansion became particularly important from the time when the island state first experienced economic recession (in the mid-1980s) (Lee & Gopinathan, 2003). The university system was subjected to restructuring and corporatisation, which led to a major expansion of existing universities' campuses and to a further expansion of collaboration with foreign universities. These

developments led to a massive expansion of student enrolments in Singapore, reaching 22% of the country's university participation in 2004 (Lee & Gopinathan, 2003). Unlike Australia, Hong Kong and the United Kingdom, however, Singapore chose not to have an unlimited expansion of the higher education system through upgrading polytechnics to universities, and focused instead on further developing the existing public universities to increase academic standards and the quality of the student experience. Having exhibited an outstanding dynamism grounded in Confucian traditions, Singapore's higher education system continues to be affected by a strong and comprehensive government policy guiding the development of the sector and providing a steady stream of state funding for the leading universities (Marginson, 2010, 2011a, 2013).

Australia, being part of the dynamic and rapidly developing Asia-Pacific region, has already benefitted from the expansion of higher education in Asian countries through the increasing numbers of the international university students enrolling in local universities (Goedegebuure & Schoen, 2014). An increase in the international student enrolments aside, the debate about massification in Australian higher education has a different character from that in the United States, the United Kingdom or East Asia, as the matter of domestic student participation is grounded in different historical conditions. The *Dawkins reforms* (named after the Hon. John Dawkins who was the Australian Commonwealth Minister for Employment, Education and Training between 1987 and 1991) of 1989, which re-introduced the university domestic students' tuition fees, were aimed at increasing participation among people with previously limited access to education (Goedegebuure & Schoen, 2014). Minister Dawkins effectively – using the power of public policy – introduced a uniform higher education system economically capable of addressing the challenge being faced by the government, and that was how to increase sustainably the number of university placements offered to meet an increasing demand for higher education (Davis, 2017). The result of the

introduced measures, which included the removal of the binary system of having both research-intensive and non-university higher education providers, supplemented by the increase in international student enrolments, was the exponential growth of the sector, embracing a 130% increase in student numbers from 1989 to 2007 (Goedegebuure & Schoen, 2014), which further exceeded 1.4 million students in 2015 (Universities Australia, 2017). Corporate business practices that were introduced to manage such unprecedented expansion have presented challenges of sustainability, employability and maintenance of this continuously growing student body.

The impact of these practices and the further development of the internationalisation policies that led to many universities establishing international (offshore) operations prompted a gradual corporatisation of the universities – the process that consequently redefined the relationships between professional and academic communities. The Dawkins reforms therefore can be seen as a catalyst of changes that ultimately reshaped university internal structures and external positioning, university governance, and the political and organisational culture, including staff relationships (Davis, 2017; Marginson, 2013; Marginson & Considine, 2000; Marginson & Rhoades, 2002). These changes can be described as the Australian universities' response to globalisation.

Despite the differences in local responses to globalisation between Australia and Singapore, the advancement of global developments and the increasing internationalisation (van der Wende, 2017), in particular, inevitably led to convergences of many higher education policies and workplace practices (Gopinathan, 2001; Green, 1997, 1999). These changes led to destabilisation, changes and diversification of staff and student communities, professional identities and culture (Coaldrake & Stedman, 1999; Henkel, 2010); to renegotiation of the spaces that university staff occupy in the course of their professional engagements; and to redefining the boundaries within universities and across multiple

professional, geographical and sectoral domains, both nationally and internationally (Henkel, 2010).

2.2.4 The golden age of **borderlessness** *as a springboard to the* **third space** *debates*

Through the processes of cultural convergence, hybridisation and increased interconnectedness occurring in the globalised world, the evidence is strong that the "new golden age of 'borderlessness'" (Urry, 1998, p. 5) increasingly demands the deconstruction of the existing structures within higher education organisations, and leads inevitably to the large-scale restructuring of existing educational, research and engagement practices (Henkel, 2010). The attempts that are being made by the contemporary universities to position themselves as multilevel and multidimensional organisations (Henkel, 2010; Marginson et al., 2011a), able to withstand the tide of globalisation, have a significant impact on university staff and on their roles, identities and career paths (Graham, 2010; Henkel, 2010; Middlehurst, 2010; Rhoades, 2006; Rhoades & Sporn, 2002; Whitchurch, 2004, 2007, 2008a).

Similarly, in Singapore enormous changes are occurring across all universities. One particular change is shifting the university agenda from being primarily a supplier of a highly trained workforce for the nation, or *Manpower* as it is referred to in Singapore, to elevating research enterprise to the centre of the university mission (Loke, Chia, & Gopinathan, 2017). A single, purely utilitarian purpose is now being upgraded to include an inspirational goal or research enterprise. Consequently, this puts Singapore universities in competition with Western institutions with their long tradition of research. Boundaries between Western and Eastern universities are being continuously re-assessed to enable individual staff to participate in knowledge and experience exchange. The reinterpretation of local and global interconnectedness (Hannerz, 2002) and flows (Castells, 2009) thus encompasses the agentic power of individuals within the organisations and a dialectical process of multi-dimensional

and multilevel (local, national and global), complex, often cross-border, interactions between institutions and people as their constituents (Cantwell & Maldonado-Maldonado, 2009).

Koh's (2010) understanding of glocalisation as "a core concept that informs the discourses on globalisation" (p. 32) presents a dialectic development from the earlier conceptualisations. It is interpreted as, firstly, as a nexus between local and global; and, secondly, as "a problem space" (Koh, 2010, p. 18): a space of the intersection and hybridisation of global and local (Ang, 1998; Bhabha, 1994, 2012; Koh, 2010; Massey, 1993; Ong & Collier, 2005; Pieterse, 1995, 2013; Soja, 1989, 1996, 2009). A connection thus emerges between the theoretical problematisation of globalisation and the pragmatic responses of higher education and universities in particular to global pressures. These responses materialise through individual professional and academic staff reconceptualisations of their professional identities through reflecting on and operationalising new university spaces – the three main themes that form the subject of the discussion in the following sections of this literature review.

2.3 Theme One – University staff collaboration: The panacea or a contemporary managerial construct?

The phenomenon of super-convergence linked with the proliferation of globalisation has far-reaching implications for how people working in contemporary universities worldwide reinvent and reinterpret the meaning of working together (Veles et al., 2019), which was the first main theme that emerged from the literature. An increasing interconnectedness between universities[3] and university staff worldwide presents an equal number of challenges and new affordances connected with economic and technological

[3] It is important to note that it is the process of system convergence, believed to be accompanied by an equally potent process of divergence (Gibbons, 1998; Green, 1997; Huisman & van der Wende, 2004, 2005; van der Wende, 2017), that is manifest in the continuing stratification of higher education institutions and the defragmentation of the educational policies scene. It was the system convergence of the globalisation flow that was particularly critical for this doctoral research.

progress (Gopinathan, 2001; Green, 1997, 1999; Henkel, 2010; Veles et al., 2019). A critical agenda for universities to expand and engage globally through offering education to the new markets, while remaining relevant to their local markets (Beerkens & van der Wende, 2007; van der Wende, 2017; Vlk, Westerheijden, & van der Wende, 2008), necessitates discussion about how staff from various university constituencies interact and work together to address new and emerging challenges.

Staff collaboration is argued to be an optimal way of dealing with the complex and competitive business world (Huxham & Vangen, 2005; Wood & Gray, 1991), including the global higher education sector (Eddy, 2010; Fitzgerald, Gardner, Amey, & Farrell-Cole, 2018; Kezar & Lester, 2009; Pham & Tanner, 2014, 2015b; Pham & Williamson, 2020; Sebalj, Hudson, Ryan, & Wight-Boycott, 2007), with the public universities not being an exception to this phenomenon, but instead increasingly operating as commercial entities. In simple terms, collaboration is about pulling together the resources and expertise of various groups and individuals to achieve organisational goals using collaborative advantage and harnessing the collaborative energy of staff (Huxham & Vangen, 2005), while enhancing the cumulative collaborative capital of the whole organisation (Beyerlein, Freedman, McGee, & Moran, 2003). While a collaborative approach to addressing global complexity is acknowledged by many to be the ideal type of professional interaction, traditional ways of collaboration that were employed decades ago are becoming rapidly obsolete and replaced by new, contemporary ways of working together (Cohen & Mankin, 2002; Thomson, Perry, & Miller, 2009). Collaborating across borders of space and time, as well as across and beyond professional and cultural boundaries, is being employed to enable university transformations in order to endure the dynamic and complex challenges that universities encounter (Cohen & Mankin, 2002; Nemiro et al., 2005; Pham & Tanner, 2015b; Pham & Williamson, 2020; Veles et al., 2019). These new ways of cross-boundary collaboration, enabled by

technological advances and higher staff and student mobility, create favourable conditions for global integration, and provide rich opportunities for the more efficient use of organisational resources, while simultaneously allowing locally embedded, contextualised and culturally appropriate responses to globalisation (Devinney, Midgley, & Venaik, 2000).

University collaboration is largely being explored through the lens of importance – i.e., the criticality of academic collaboration for achieving one of the main university missions. For example, the literature explores academic research collaboration (Rothaermel, Agung, & Jiang, 2007) and university-industry collaboration (Abreu & Grinevich, 2013; Bozeman, Fay, & Slade, 2012; Clarysse, Tartari, & Salter, 2011; Dietz & Bozeman, 2005; Tijssen, van de Klippe, & Yegros, 2019) within the context of research commercialisation, as well as school-university (Shinners, 2006; Stephens & Boldt, 2004) and inter-institutional collaboration (Levitt, Goreham, & Diepeveen, 2011).

Apart from the inter-sectional research studies, there are extensive studies of interdisciplinary research collaboration and its advantages for increasing institutional research profiles with the countervailing considerations of the effects of collaboration on the individual researchers and their respective disciplines (Amey & Brown, 2004; Bozeman & Corley, 2004; Fitzgerald et al., 2018; Fox & Faver, 1984; Gunawardena, Weber, & Agosto, 2010; Holley, 2009). Collaboration is not always the optimal way of working within the universities, and neither should it be perceived as such (Williams, 2011, 2013). In his critical analysis of collaboration as a contemporary university construct, Macfarlane (2017) discussed collaboration as benefiting only *some* actors and as being useful only *some* of the times. In his view, collaboration represents a boundary between collective effort and an individual measure of performance, whereby university academics are encouraged to collaborate when applying for competitive research funding all along while being measured individually throughout the system of career advancement and academic promotions

(Macfarlane, 2017). This critique is largely linked with the overarching discourse of a neoliberal managerial university and the growth of the *administrative estate* (Altbach, 2016; Baltaru, 2019a, 2019b; Baltaru & Soysal, 2018).

While providing rich grounds for engaging with the topic of academic staff collaboration, the literature appears to under-represent discussions about partnering between academic and professional staff for the purpose of achieving university goals. This is with the signal exception of extensive empirical studies of academics working together with library and information services staff for the purposes of teaching and learning improvement and research capacity advancement (Bruce, 2001; Christiansen, Stombler, & Thaxton, 2004; Diep & Nahl, 2011; Gravett & Winstone, 2018; Gunawardena et al., 2010; Pham & Tanner, 2014, 2015b; Pham & Williamson, 2020; Shen, 2012; Simmons, 2005; Techataweewan, Kuntpong Woraratpanya, & Sanrach, 2009). Collaboration between librarians and academics is at times perceived as a redistribution of academic professionalism, and therefore of responsibilities for teaching and learning across a wider range of university professional groups (Doskatsch, 2003); it is therefore not unproblematic. There is, however, a certain commonality between these two groups that potentially makes such collaboration accepted and researched more extensively than collaboration with other groups of professional staff. Traditionally, the professional identities of both librarians and academics are embedded in knowledge and its production, packaging, dissemination and storage. It is not surprising that collaboration is defined by library researchers as "a joint working, learning and sharing process that specifically focuses on the activities of teaching, learning and researching among educational participants, in which knowledge can be activated and transferred" (Pham & Tanner, 2015b, p. 3). In other words, an acknowledged commonality of goals between these two university communities makes a case for a stronger acceptance of sharing professionalism and responsibilities, and thereby of enabling partnering and collaboration.

Despite the increase in acknowledgement of collaborative efforts between different groups of university actors, there is a noted dissonance between the growth of collaboration and the reward structures in many Western universities. These reward mechanisms have not been sufficiently advanced to accommodate and promote staff collaborative engagement (Macfarlane, 2011; Parkes et al., 2014; Thomas, 2012). Rewards systems aside, staff are often not given time to work on collaborative projects during their workday (Parkes et al., 2014).

More recently, with the increasing changes of the university staff roles and professional identities (Middlehurst, 2010), a wider range of professional and academic collaboration is being featured in the higher education research literature, and with the emergence of more nuanced studies into these groups working together (Graham, 2013b; Kolsaker, 2014; Ryttberg & Geschwind, 2017; Veles et al., 2017; Veles et al., 2019; Veles & Carter, 2016; Whitchurch, 2015, 2018; Whitchurch & Gordon, 2009). In the past several years, the research has gradually expanded, and now includes an exploration of *pedagogical partnerships* between academic and professional staff for the benefit of achieving positive student outcomes (Graham, 2013c; Graham & Regan, 2016), or enhanced student experience (Parkes et al., 2014); partnering for the enhancement of research impact and knowledge exchange (Deem, 2010); information technology experts collaborating with academics to improve online student support (Graham, 2013a; Moser, 2007); academic developers' contributions to the institutional missions through creating models of staff-student partnerships (Fitzgerald, Huijser, Meth, & Neilan, 2020; Fremstad, Bergh, Solbrekke, & Fossland, 2020; Huijser, Sim, & Felten, 2020; Mercer-Mapstone, 2020; Sugrue, Solbrekke, Bergh, Sutphen, & Fossland, 2019; Veine et al., 2020); and library information practitioners collaborating with educational designers and academics to improve teaching resources and to

co-design the curriculum (Beckmann, 2018; Botterill, 2018; Hobson et al., 2018; Pham & Tanner, 2015b; Silvey et al., 2018; Stoltenkamp et al., 2017).

Finally, a recently published volume entitled *Professional and support staff in higher education* (Padró et al., 2018) dedicated a whole section to the topic of leadership and collaboration, with the overall 29 articles focusing completely on, or discussing specific aspects of, the academic-professional staff collaboration. It may therefore be concluded that the previously identified research gap is being gradually filled with the new and emerging studies of professional staff contributions to the university missions of teaching and learning, research and engagement in collaboration with the academic colleagues.

If working together serves as a type of collaborative organisation form addressing the increasing global demands for connectivity, and new and reinvented forms of linkages, partnerships, alliances and networks (Gibbons, 1998), then using collaborative work in order to use knowledge and resources efficiently, address institutional and wider sectoral challenges, and achieve university goals collectively raises a question of how diverse groups of staff navigate organisational, professional and other types of boundaries in order to collaborate (Kaats & Opheij, 2014; Pham & Tanner, 2015b), and, in particular, whether these boundaries need to be controlled, maintained and managed (Adams, 1976; Aldrich & Herker, 1977; Eddy, 2010; Holley, 2009; O'Flynn, Halligan, & Blackman, 2013), or challenged, reinterpreted and crossed (Akkerman, Admiraal, Simons, & Niessen, 2006; Akkerman & Bruining, 2016) for successful collegial work. As collaborations are frequently characterised by membership that is temporary and fluid, this leads to blurring the boundaries between the collaborating team and other groups or individuals (Dibble & Gibson, 2013).

2.4 Theme Two – Institutional boundaries: Obstacles to progress or illuminators of diversity?

Among the wealth of literature about organisational boundaries, the university boundaries and their increasing fluidity in the age of global transformations have been one of the most powerful discourses among higher education researchers (Henkel, 2010). The persisting discourse of the institutional boundaries represented the second theme derived from the explored literature. The emergence of new, and the redefinition of existing, university activity domains led to a reconceptualisation of professional and academic staff identities, and to the need for staff to negotiate manifold boundaries relentlessly. While the university staff continue to learn how to work across boundaries, it appears to be critical to develop their skills and capabilities in boundary crossing in order to enable them to use the opportunities that working together afford (Levitt et al., 2011) for the purpose of sharing scarce resources in the environment where universities are increasingly required to have "fewer gates and more revolving doors" (Gibbons, 1998, p. 78), thus being more open to industry and the wider community. Institutional, professional and other boundaries may therefore suggest a potential for staff who navigate them to learn from one another's practices, identities and perspectives.

The duality of boundaries and their pragmatic utilisation have been discussed extensively in the literature about such diverse fields of study as the sociology of organisations (Akkerman & Bakker, 2011a; Akkerman & Bruining, 2016; Engeström, 1987; O'Flynn et al., 2013; Paulsen & Hernes, 2003; Walker & Nocon, 2007; Wenger, 1998), public administration and management (O'Flynn et al., 2013; Sullivan & Skelcher, 2002) and psychology (e.g., Schneider, 1987). An approach discussed in traditional organisational theory literature advocates the unidimensional treatment of boundaries as embedded features of organisational structure that need to be maintained, preserved and managed in order to

safeguard the system itself (Cooper, 1986; Parsons, 1951, 1956). Boundaries in the universities, for example, are frequently viewed as deeply engrained and therefore as impenetrable features of the institutional structure (Holley, 2009).

In organisational sociology literature, boundaries simultaneously denote socio-cultural differentiation, potentially leading to the discontinuity of relationships; and yet they suggest the sameness or similarity of a group, which is a foundation of strong and enduring relationships through actions and interactions (Akkerman & Bakker, 2011a, 2011b). Interpreting boundaries through the lens of their contrasted nature may therefore help to explicate the agentic nature of staff in the institutional contexts (Albert, Ashforth, & Dutton, 2000; Paulsen, 2003), and illuminate how organisational actors become motivated and inclined towards collaboration. Studying the "learning potential of boundaries" (Akkerman & Bakker, 2011a, p. 133; see also Akkerman & Bruining, 2016), whereby learning is interpreted in a broad pragmatic-utilitarian sense of change and development, including such transitions as acquiring "new understanding, identity development, change of practices, and institutional development" (Akkerman & Bakker, 2011a, p. 142), appears to provide a generative framework for discussions about professional groups and their professional relationships (Heracleous, 2004) within various hierarchical types of organisations, including universities. As the literature suggests, university boundaries, along with those in other organisational hierarchies, although not disappearing, are becoming increasingly permeable and fluid (Albert et al., 2000; Botterill, 2013, 2018; Kaats & Opheij, 2014; Scott, 2004). The complexity or ambiguity (Paulsen & Hernes, 2003) of university boundaries and of their enabling (inter)action capability (Hernes, 2003) presents a useful lens for exploring university staff collaboration.

It is important to note that, although collaboration and boundary crossing are discussed in their contextual proximity, they are not the same phenomenon. As was noted by

O'Flynn at al. (2013), "boundary crossing…is not just about collaboration, or just about networks, but is a much more diverse and differentiated set of mechanisms employed in attempts to traverse boundaries" (p. 6).

The term *boundary crossing* was introduced to represent a transition into unfamiliar or contested organisational spaces performed by individual actors who may not be prepared, or who might perceive themselves as unqualified to do so, thus being faced with a challenge of renegotiating the hybridisation of their professional or role identity (Akkerman & Bakker, 2011a; Engeström, Engeström, & Kärkkäinen, 1995; Wenger, 1998; Wenger, McDermott, & Snyder, 2002). It is perhaps possible to refer to boundary crossing as the *how* (a vehicle), and to collaboration as the *what* (purpose or destination), within a wider discussion of university alternative spaces (the *where*) of staff operations, which are being generated by the local/global integration. Remarkably, collaboration across boundaries, similarly to any type of collaboration (Macfarlane, 2017; Williams, 2013), is not universally considered to be the best solution to organisational challenges (e.g., Head's [2013] research about cross-boundary collaboration in government policy making and the delivery of services; see also Alford & O'Flynn, [2012]; Koontz & Thomas [2006]). As in any collaboration, certain requisite factors need to be present in order for the effects of boundary crossing to be successful (Head, 2008, 2013, 2018), and time is required to build strong collaboration relationships between staff (Pham & Tanner, 2015b) who are perceived to be divided by boundaries. Ultimately, if the cross-boundary collaboration is interpreted as working together through building on one another's strengths, expertise and abilities, it is legitimate to view it as benefiting both the institution and the actors (Agranoff, 2006; Eddy, 2010; Huxham & Vangen, 2005; McGuire, 2006; Parkes et al., 2014). The value of working across multiple, complex boundaries is thus being interpreted broadly with the inclusion of human actors.

As in any human interactions, the additional complexity of cross-boundary work is explained by the non-homogeneous nature of people and of the practices, identities and processes that they represent and bring into collaboration. Exploration of the boundary literature brings to light an understanding of "how markers of difference are created, maintained, or contested at many different levels of institutionalization and categorization" (Akkerman & Bakker, 2011a, p. 135; see also Lamont & Molnár, 2002). Understanding of diversity has been gradually shifting from its conceptualisation as a marker of differentiation and problematic discontinuity created by differentiation to an appreciation of diversity through viewing it as a valuable resource of unity, reciprocal learning, change and development (Akkerman et al., 2006; Akkerman & Bakker, 2011a, 2011b; Roth & Lee, 2016; Wenger, 1998). As was discussed by Macfarlane (2015), the dualisms of *academic/non-academic* and *collegiality/managerialism* are the most enduring dualisms in higher education. When dualisms are being replaced by a dialogical approach involving reciprocal reflecting and interpretation of multiple actors' identities and practices, a new appreciation of boundaries emerges that is particularly generative of collaborative cross-boundary work (Akkerman et al., 2006).

It appears that, in addition to engaging in perspective-taking and perspective-making practices (Akkerman & Bruining, 2016), understanding boundaries as illuminators of diversity and learning at boundary crossing requires a particular "boundary-crossing competence", which is defined as "the ability to function competently in multiple contexts" (Walker & Nocon, 2007, p. 178). It is assumed that staff employed to work with multiple constituencies within and outside the universities traverse multiple organisational domains (Whitchurch, 2009b; Williams, 2013). These staff are called *boundary spanners* (Di Marco & Taylor, 2011; Schotter, Mudambi, Doz, & Gaur, 2017; Williams, 2002, 2011, 2013, 2015). By the nature of their jobs, these actors are believed to possess the cross-boundary

competence that is required to catalyse innovation and knowledge transfer between teams within the new working environments (Fitzgerald et al., 2020; Thomas-Hunt & Gruenfeld, 1998), or "to bridge the 'structural holes' in the larger organization, and thereby enhance its capacity for knowledge transfer" (Gibson, Waller, Carpenter, & Conte, 2007, p. 1022; see also Ancona & Caldwell, 1992; Pelled, Eisenhardt, & Xin, 1999). One of the questions that remains unattended to is whether this competence is a prerequisite for staff performing boundary-spanning functions, or whether it may be needed by all staff working together. It is also unclear whether the competency that pertains to the knowledge transfer capacity of staff may be conducive to a wider range of purposes and individual needs of staff aspiring to work collaboratively across multiple boundaries.

In addition to the identified scarcity of research about cross-boundary competence in the university contexts, there is another topic that appears to have received little attention in research. This is the topic of intercultural cross-boundary university staff collaboration. The paucity of research about this topic can be explained by the complexity and inter-connectedness of the layers of culture, national boundaries and individual staff characteristics. Multicultural collaboration has been prominent in the work of a number of intercultural researchers, such as Dibble and Gibson (2013), Gibson and Dibble (2008) and Vallaster (2005). Nemiro, Hanifah and Wang's (2005) research focused on a specific type of multicultural collaboration referred to as complex collaboration, which the authors defined as working together "across time, distance, organization and culture" (p. 117; see also Mankin & Cohen, 2006). This substantive body of research focuses on the challenges of multicultural collaboration in contemporary globalised environments. Using methodologies considered to be appropriate for studying this topic (Gundry & Rousseau, 1994), which include multiple case study analysis, these studies have provided detailed descriptions of actors' (inter)actions, events and experiences emerging through collaboration, and the meanings that they ascribe to

events and settings (Dibble & Gibson, 2013). These studies highlight various antecedents, constraints and adjustment processes for effective and successful multicultural and complex (cross-boundary) collaborations. The main conclusion derived from this body of empirical knowledge is that complex intercultural collaboration is becoming increasingly important for both collaborating partners and their organisations; it is therefore critical to invest time and effort exploring new ways of helping staff working across Eastern and Western cultural contexts.

In summary, the review of the literature about the *mode* (crossing the boundaries), the *destination* (collaboration) and the spatial boundary-navigating *competence* identified two main areas where research may be viewed as insufficient: the meaning of cross-boundary competence within the university contexts within a wider group of professionals; and the specificity of the university staff cross-boundary intercultural collaboration. The discussion of the literature advances in the following sections to focus on one group of actors – university professional staff – operating within alternative university *contexts* (the university *third space*).

2.5 Theme Three – University *third space* debates interpreted from two perspectives

Unlike the literature about changes in Singaporean higher education, there is a wealth of literature about Australian scholarly discussions of university staff, although the debates about professional staff have been emerging primarily in the last two decades (Allen Collinson, 2007; Botterill, 2018; Connell, 2013; Conway, 2015; Conway, 2000, 2013; Davies & Bansel, 2007; Davis, 2018; Deem, 2010; Dobson & Conway, 2003; Goedegebuure & Schoen, 2014; Graham, 2013a, 2013c, 2018; Graham & Regan, 2016; Henkel, 1997, 2007, 2010; Regan & Graham, 2018; Rhoades & Sporn, 2002; Ryttberg & Geschwind, 2017; Sharrock, 2012; Stage & Aagaard, 2019; Sugrue et al., 2019; Veles & Carter, 2016; Whitchurch, 2004, 2006b, 2007, 2008a, 2008c, 2009b, 2010a, 2012, 2015, 2018, 2019;

Whitchurch & Gordon, 2009, 2010). The changing landscape of the higher education sector with the concurrent system convergence and divergence (Gibbons, 1998; Green, 1997; Huisman & van der Wende, 2004, 2005; van der Wende, 2017), accompanied by rapid advances in technology and persisting demands for knowledge sharing (Henkel, 2010; Marginson, 2010, 2011a, 2011b; Marginson et al., 2011a), presents a challenging work environment for contemporary universities and staff working with continuous organisational change, uncertainty and structural permutations. Responding to and at times leading these changes, universities recalibrate their mission, whereas staff reshape their professional portfolios, work profiles and professional identities (Graham, 2013a; Szekeres, 2011; Veles & Carter, 2016; Whitchurch, 2008a, 2012). In the following two sub-sections, professional staff debates are analysed from the following two perspectives. Firstly, these debates are discussed through the lens of the university *third space* and the historically evolving phases of *Contestation, Reconciliation, Reconstruction* and *Transformation* as staff interact within various types of university *third space* environments (2.5.1). Secondly, the debates are viewed from the perspective of an existing analytical divide between the ways that professional staff analyses are being approached (2.5.2). A brief analysis of the parallel (although scarcely represented in the literature) discussions about professional staff working together with their academic colleagues in universities in Asian countries is provided at the end of Sub-section 2.5.2.

2.5.1 Professional staff debates through the lens of the university third space: The Contestation, Reconciliation, Reconstruction and Transformation phases

The concept of *third space* has been used to explore spatial relationships, diversity and boundaries in social theory (Bell, 1976; Bourdieu, 1984; Said, 1978), cultural studies (Bhabha, 1994), geography (Lossau, 2009; Routledge, 1996; Soja, 1996), and art and design (Barstow, 2018), among other fields. Space has been widely discussed since the theoretical

work of Lefebvre (1974) who positioned space in the centre of dynamic and agential relations. The concept was elaborated by Foucault (1984) and Knott (2005) as being socially constructed and activity-generating reality as opposed to static background. Space represents temporality, a process and a progression, which simultaneously illuminate its specific nature, and which represent its connectedness with other spaces, thereby interlinking the local and the global within social relations (Massey, 2005).

Third space appears when a line is drawn between inside and outside culture, identity and the way of being at large, thus creating a duality. It is difficult to imagine a fully dichotomous world, and this is how interstitial spaces come into being to represent cultures and identities that belong to neither one nor another world. For example, Bhabha in his seminal work *The Location of Culture* (1994) theorised *third space* as a "liminal space, in-between the designation of identity" (p. 4). It is an "interstitial passage between fixed identifications…[with the] possibility of a cultural hybridity that entertains difference without an assumed or imposed hierarchy" (Bhabha, 1994, p. 4). The notion of a space that expresses, legitimises and values difference through the preservation of individual narratives means that through social and professional interactions people of different cultures and professional identities create something truly unique, which may at times be more meaningful than each of them would have created on her or his own. The process of reconstructing dualisms into a hybrid creation is happening simultaneously through "collaboration and contestation" (Bhabha, 1994, p. 2; see also Routledge, 1996), which "enables other positions to emerge" (Bhabha, 1994, p. 211). Soja (1996) suggested that, in the times of globalisation and global exchanges among people, ideas and knowledge, "…the spatial dimension of our lives has never been of greater practical and political relevance than it is today" (p. 1). *Third space* is "a place of critical exchange …" (p. 5), which includes a "multiplicity of perspectives" never previously considered compatible or combinable. The idea of *third space* has been recently

reframed in the use of inter- and transcultural communication in the context of (post)globalised human exchanges (Beck, 2009; Bhabha, 2009; Ikas & Wagner, 2009; Lossau, 2009).

Despite the pitfalls and the linguistic ambivalence of *third space* discussed by the geographer Julia Lossau (2009), the concept of *third space* continues to be acknowledged as meaningful and generative, and is widely applied to interactions between various actors and groups of staff in many academic endeavours, including education theory and practice (Fitzgerald et al., 2020; McAlpine & Hopwood, 2009; Zeichner, 2008), with spatial thinking providing a generative platform to explore the complexity of the higher education discourses (Thomas, 2015). Further developing the concept, Whitchurch (2008b, 2012) introduced it to higher education research to investigate the "emergence of broadly based, extended projects, which are no longer containable within firm boundaries" (Whitchurch, 2012, p. 24). This innovative analytical lens makes it possible to discuss professional and academic staff contributions that are not defined by such boundary objects as job descriptions and agreed role scopes. However, as Lossau (2009) alerted the *third space* thinkers, by applying the concept to contemporary analyses of difference and identity, it is important not to run the risk of undermining the "disruptive power" of *third space* by presenting it as simply "an interstitial position on the fence", or of oversimplifying it as another transformed bounded space "located in-between other bounded spaces, like a piece of a jigsaw puzzle" (p. 70). It is important to assess continuously the learning from Bhabha (1994) and other *third space* progenitors to avoid turning *third space* into a new constrained entity devoid of criticality and cultural fluidity (Ikas & Wagner, 2009; Lossau, 2009).

Danaher (2020), exploring the productive potential of *margins* – another powerful concept that is associated closely with *third space* through sharing the same persisting boundary that maintains multiple binaries imposed and perpetuated by sociocultural

structures and complex human (inter)actions – illustrated, through challenging the binaries and (re)positioning them as fluid, shifting and perpetually adapting to external conditions and disrupting their perceived fixedness, the possibility of reconciling multiple identities and perspectives that may lead to lasting transformation and fruitful relationships. In this sense, *third space*, like *margins*, affords a researcher a deeper and more reflexive view of complex professional interactions and identities – a view that combines enduring transformation (Danaher, 2020), while preserving "embedded distinctiveness" (Henkel, 2010, p. 10), with the multivoicedness of perspectives (Bakhtin, 1981) of individual actors, who are engaged in cross-boundary work or temporary work activities.

Contemporary university reality, increasingly characterised by intercultural global exchanges, compels professional staff to navigate multiple organisational and professional boundaries, and to develop new recombined or hybrid ways of working with academics where the traditional *either/or* professional groups' dichotomy becomes redundant and gives prominence to an additive *both and also* model of value-based relationship (Birds, 2015; Whitchurch, 2012; Zeichner, 2008), thus taking a decisive step towards the "*disordering* of difference from its persistence binary structuring" (Soja & Hooper, 1993, p. 184). In order to understand better how the process of *disordering* with its accompanying ambiguities has been evolving, professional staff roles and identities discussions are presented in this subsection using a multi-stage approach. An original three-stage lens, which included the *Contestation, Reconciliation* and *Reconstruction* evolutionary phases (Whitchurch, 2010b, 2012), is advanced by the addition of the *Transformation* phase, which reflects the most recent concepts and debates. The dominant themes that characterise each of these phases, supported by several key examples of the literature sources, are presented in Table 2.1. As these developmental stages intersect and at times happen in parallel, which reflects the

development and maturation of professional practices (Whitchurch, 2012), a number of sources in the table have multiple entries.

Table 2.1

The Evolution of Professional Staff Debates across Three Decades (Adapted from Veles and Carter [2016, p. 523])

Evolution Stage	Key focus of the discourse around professional staff	Authors and years of publication
Contestation	Nomenclature and titles; narratives of invisibility, marginalisation and exclusion	Allen Collinson (2007); Castleman and Allen (1995); Conway (2000); Deem (1998); Dobson (2000); Dobson and Conway (2003); Gornitzka and Larsen (2004); Graham (2009, 2010, 2012); Lauwerys (2002); Rhoades (2010a); Small (2008); Szekeres (2004); Whitchurch (2006b)
	Professional staff: gender dimensions	Bagilhole and White (2011); Burton, Cook, and Wilson (1997); Castleman and Allen (1995); Chesterman, Ross-Smith, and Peters (2003); Currie, Thiele, and Harris (2002); Eveline (2004); Gander (2010); McLean (1996); Payne and Shoemark (1996); Probert, Ewer, and Whiting (1998); Stewart (2004); Strachan et al. (2012)
Reconciliation	Narrative of tension between professional and academic staff; gestation of a possibility of professional partnerships	Bagilhole and White (2011); Burton et al. (1997); Castleman and Allen (1995); Chesterman et al. (2003); Conway (2012); Currie et al. (2002); Deem (1998); Gander (2010); Kehm (2015a); Krücken, Blümel, and Kloke (2013); McMaster (2005); Parker and Jary (1995); Probert et al. (1998); Rhoades and Sporn (2002); Small (2008); Strachan et al. (2012); Szekeres (2004, 2006)
Reconstruction	Professional staff identities: fragmentation and reconstruction, identity stretch and leadership practices	Davis (2014, 2018); Davis and Jones (2014); Graham (2010, 2012, 2013a); Gray (2015); Jones (2018); Jones et al. (2012); Kolsaker, (2014); McMaster, (2014); Middlehurst (2010); Whitchurch (2007, 2008c, 2009a, 2009b, 2012); Whitchurch et al. (2009)

Evolution Stage	Key focus of the discourse around professional staff	Authors and years of publication
	Growing legitimisation of professional staff; forming and strengthening of group identity	Conway (2000, 2013); Dobson and Conway (2003); Marshall, (2018); Middlehurst (2010); Sebalj et al. (2012); Strachan et al. (2012); Szekeres (2004, 2011); Whitchurch (2006a, 2007, 2012)
Reconstruction	Professional staff further development and legitimisation; professionalisation debates; career trajectories	Berman and Pitman (2010); Conway (2000, 2013); Dobson and Conway (2003); Macfarlane (2011); Middlehurst (2010); Bourke et al. (2012); Strachan et al. (2012); Szekeres, (2011); Szekeres and Heywood (2018); Whitchurch (2006a, 2007, 2012)
	University *third space*: conceptual development and interpretation; *third space* professionals; professional staff typology; typology of the university *third space* environments	Barnett and Di Napoli (2008); Birds (2015); Bissett (2018); Botterill (2018); Conway (2013); Deem (2010); Graham (2013c); Hockey and Allen-Collinson (2009); Kolsaker (2014); Middlehurst (2010); Pham and Tanner (2014, 2015b); Takagi (2015, 2018); Whitchurch, (2007, 2008a, 2009a, 2009b, 2012, 2018)
Transformation	Alternative realities and imaginaries: cross-boundary professional capabilities; staff pedagogical partnerships; reimagining of university professional groupings and further career trajectories	Baltaru (2019a, 2019b); Baltaru and Soysal (2018); Botterill (2018); Davis (2018); Davis and Graham (2018); Graham (2018); Graham and Regan (2016); Gravett and Winston (2018); Marini, Locke, and Whitchurch (2019); Mercer-Mapsone (2020); Parkes et al. (2014); Regan and Graham (2018); Roberts (2018); Stage and Aagaard (2019); Stoltenkamp, Van de Heyde, and Siebrits (2017); Whitchurch (2018)

At the stage of *Contestation*, professional staff roles and identities are largely viewed as bounded by and embedded in the broader discourses of organisational environment: neoliberalism, (new) managerialism and university commercialisation, to name just a few. Traditional boundaries between staff roles and activity domains, while still perverse and dominating the university lifeworld, start being contested by the new potentialities, forms and structures, which gain further momentum in the *Reconciliation* phase. Debates at this stage gradually shift the focus to new and more meaningful ways of working together to realise organisational and personal professional opportunities (Whitchurch, 2010b). The debates gradually mature and appear to become more future facing when the concepts of *borderless education* and *borderless professionals* (Middlehurst, 2010) enter the discourse. Through the tentative exploration of boundaries between professional groups and organisational realities, professional staff are becoming engaged in activities previously reserved for the academic domain (for example, library staff engaged in student tutoring), or those that had not existed before (new project work), thus creating both possibilities and tensions in professional relations.

In the *Reconstruction* phase, the possibility of collaboration between various university actors transforms into a critical necessity with the growth of internationalisation, global staff and student mobility, and the overarching exchanges associated with these processes. Professional staff actively discuss their identity (trans)formations, perceiving these in the context of technological advances, intercultural connections, and inter-university and wider local/global dynamics. Changes involve “the active contribution of individuals to the formation of new space, at the same time as developing new identities for themselves and their teams” (Whitchurch, 2012, p. 27). The emergence of the university *third space* concept gives rises to renewed discussions in the academic literature, with new contributions from staff involved in university professional practice (Birds, 2015; Botterill, 2018; Graham,

2013c; Veles & Carter, 2016; Whitchurch, 2012). This new space is being articulated as one where certain types of professionals, using a mélange of skills, commercial acumen, organisational insight and expertise, work together with academics towards addressing higher education challenges.

Despite the articulated four types of university professional staff identities (Whitchurch, 2008a, 2008c, 2012), ranging from bounded (with specific job scope and functions described in the position description); to cross-boundary (using organisational and other boundaries for various capacity-building endeavours); to unbounded (project-based); to blended professional (navigating through professional and academic domains), there is evidence that all types of professional staff move across multiple boundaries (at least on some occasions) and at times find themselves operating in the *third space* (Birds, 2015; Bisset, 2018; Botterill, 2018; Graham, 2013c): in-between roles or in the non-traditional spaces that are often considered as marginal to the core university activities. Only a small number of staff, however, according to a recent survey of professional staff roles (Mirosa, Abela, Davis, & Graham, 2017), are familiar with the term *university third space*, and hence only a few identify themselves as *third space professionals*.

University *third space* environments, as displayed in Table 2.2, are being classified into *integrated, semi-autonomous* and *independent* types according to the relative positions that they occupy within the core university activities of teaching, research and engagement (Whitchurch, 2012, 2018). This classification presents a useful framework to investigate staff interaction across a diversity of the university projects, what they need to become engaged in a project, the ways that they draw on resources (including networks and other professional relationships) and how practices change as a result of their collaboration.

Table 2.2

The Loci of the University Third Space *Environments in Relation to the Core University Activity Domains of Teaching, Research and Engagement (Adapted from Whitchurch [2012])*

University *third space* environment types	Description of types	Relationships characterising each type	Examples from the university *third space* literature
Integrated	Explicitly recognised by the university and integrated into the organisational structure	Project expectations are negotiated and established on both professional and academic sides. Professional actors may have developed careers in the area of the project. Generally present a stable environment for actors. Individual actors use the *third space* status and their affiliation with the institutional identity and goals to combine and advance both academic and institutional interests.	Central educational development unit; university policy development (Whitchurch, 2012, 2018) Library practitioners working in collaboration with academics (Pham & Tanner, 2014, 2015b; Pham & Williamson, 2020)

University *third space* environment types	Description of types	Relationships characterising each type	Examples from the university *third space* literature
Semi-autonomous	Specific projects that are partially independent from the university. May be fully or partly self-funded or funded by external parties. May represent a transitional stage of the projects before full integration.	Actors develop practices, rules and resources critical for local conditions. Occasionally connecting with professional groups and using established networks. Loose affiliation with the institutional identity and goals.	Fundraising, employability and learning partnerships (Whitchurch, 2012). Educational designers' and academic developers' contribution to the university agenda (Bisset, 2018; Johnson, Wilson, Xie, & Huijser, 2018; Sugrue et al., 2019). Interdisciplinary projects on developing online learning resources (Botterill, 2018). Instructional designers designing and delivering digital lectures for lecturers and undergraduate students (Stoltenkamp et al., 2017).
Independent	Occur in patches within mainstream structures and arise mainly through individual collaborations and networks on a temporary or ad hoc basis for an explicit purpose. Differentiated from the mainstream space by those working within and by outside parties, as these projects may not become fully established or integrated.	Dependence on the support of the local leaders to gain project legitimacy. Actors work around existing structures and have slight links with the institutional identity and goals. At times, actors feel frustrated and may exit the project.	Independent spinout company based on the commercialisation of research outputs (Birds, 2015).

Although there is a recognition that the emphasis in building new spaces is on continuity rather than on discontinuity of practices (Wenger, 1998), the *Reconstruction* phase witnesses a contestation of new spaces and a questioning of the validity and legitimacy of professional staff boundary-crossing practices, which persist through the next phase (Baltaru, 2019a, 2019b; Baltaru & Soysal, 2018; Ginsberg, 2011; Hogan, 2013).

Recently developed conceptualisations of university collaborative engagement currently present an end-point in the discussions and focus on *Transformation* from service-based relationships between professional and academic staff to partnership with an equalising of the value of each partner's contribution to the relationship. Professional staff are presented in the research as actors displaying autonomy and determination when making their career and professional development choices (Davis, 2018; Davis & Graham, 2018; Regan & Graham, 2018). The highpoint of this discussion is that "collaborative, team-based consultative partnerships across the entire institution have rapidly become a new orthodoxy" (Sugrue et al., 2019, p. 15).

It is recognised that the university *third space* is not the only way of conceptualising the continuously developing university staff identities and interactions. One of the alternatives to *third space* is the matrix model of academic and professional roles developed by Graham (Graham, 2010, 2013c, 2018). The concept has manifold significant implications for the higher education institutions and staff, primarily in the areas of human resources, professional development and industrial relations. The presented model is intended to surpass the traditional *academic/non-academic* dichotomy and to present a more pragmatic approach, whereby staff are positioned in accordance with the required skill focus. Most importantly, the model proposes an advancement of the debates about the recognition of new and continuously emerging spaces inhabited by various university actors, thus proposing a reciprocity solution to the predicament felt by both academic and professional communities.

The historical phases of professional staff roles and identities development across three decades having been outlined, these debates are now grouped into two large areas based on the analytical focus in order to distil the gaps that need to be addressed to advance this scholarly project.

2.5.2 Professional staff debates: Analytical division

From the analytical perspective, there appear to be two main analytical foci reflecting the professional staff discussions in the literature. One is the *invisibility discourse*, which is present mainly in research publications written by scholars and practitioners who are involved in professional support services, and who have been actively leading these higher education research debates (Graham, 2009; Roberts, 2018; Szekeres, 2004, 2005, 2011; Whitchurch, 2008b, 2012). An alternative focus is the critique of the continuously increasing numbers of the university professional support staff, who are often being presented in terms of the controversial university binary as non-academic staff. This discourse is represented primarily by academic scholarly publications (Forsyth, 2014; Leicht & Fennell, 2008; Wohlmuther, 2008), which generally include an overarching critique of the neoliberal universities and, stemming from it, of the new public management agenda shared by the contemporary universities across the globe (Davies, Gottsche, & Bansel, 2006; Deem, 1998; Lorenz, 2012), and in its hybrid form (neoliberal with the grounding in developmental state control) as it emerged in Singapore (Boyd & Ngo, 2005; Gopinathan, 1996, 2007; Gopinathan & Lee, 2011; Koh, 2010; Kong & Yeoh, 2003; Liow, 2012; Mok & Lee, 2003; Olds, 2007; Ong, 2006, 2007; Tan, 2012).

The first focus and the researchers working in this area have since transformed the discourse from invisibility ***as*** disempowerment to the growing agency, leadership and self-empowerment of professional staff despite their persisting invisibility. Their research has been informative and transformative for university staff, indicating that professional staff

have been increasingly taking an active part in designing their career trajectories (Davis & Graham, 2018; Gander, 2018) and their professional development, and in reconceptualising their professionalism in higher education (Davis, 2018; Davis & Graham, 2018; Whitchurch, 2018); and in leading, contributing and shaping collaboration and partnership among professional and academic staff, students, schools, industry and wider university communities (Eddy, 2010; Graham, 2018; Graham & Regan, 2016; Gravett & Winstone, 2018; Parkes et al., 2014; Pham & Tanner, 2014, 2015b; Veles et al., 2019; Whitchurch, 2012, 2018).

While the first research focus has been undergoing conceptual changes, the second – the critique of the continuously expanding *administration* manifesting the increasing corporatisation of the universities (Altbach, 2016; Clark, 1998; Forsyth, 2014; Leicht & Fennell, 2008; Rhoades & Sporn, 2002; Wohlmuther, 2008) – has not changed significantly across time. Its emphasis in recent years is on a more in-depth analysis of the consistent and continuing growth in professional staff and of the rise of the new types of managerial professionals across universities in the United States, the United Kingdom and other countries in Europe (Baltaru, 2019a, 2019b; Baltaru & Soysal, 2018; Bleiklie, Enders, & Lepori, 2017; Ginsberg, 2011; Gornitzka & Larsen, 2004; Kehm, 2015a, 2015b; Krücken, Blümel, & Kloke, 2009; Krücken et al., 2013; Logue, 2014; Schneijderberg & Merkator, 2013; Thoenig & Paradeise, 2016).

There is also an increasing interest from a small group of researchers in interrogating the relationship between the growth of professional staff and university performance (Baltaru, 2019a, 2019b; Baltaru & Soysal, 2018). Having assessed data from a sample of 100 universities in the United Kingdom from 2003 to 2011, Baltaru (2019b) concluded that, although the professional staff body's expansion – or, to be precise, the increased ratio of professional staff to students – has led to degree completion, this relationship was found to be weak and inconclusive.

The most recent study to date by Stage and Aagard (2019) critically assessed data presented by recent research about European universities' staff dynamics (Baltaru & Soysal, 2018; Bleiklie et al., 2017; Kehm, 2015a; Rhoades, 2016; Seeber et al., 2014), and found it to be limited and inconsistent. The authors pointed out that approaching staff data analysis with the binary mind frame (academic vs. non-academic), as many of these cited studies do, compromises the understanding of the complex and perpetually changing landscape of higher education staff employment (Kogan & Teichler, 2007; Macfarlane, 2011; Stage & Aagaard, 2019). In their analysis of the Danish university academic and administrative staffing changes from 1997 to 2017, they proposed a more granular approach in order to achieve a better understanding of the transformational changes that have been affecting Danish universities. Their innovative approach, which included quantitative longitudinal data analysis, also reflected the unclear boundaries between professional staff roles and identities, and included a qualitative exploration thereof. The authors concluded that the evidence from Danish universities staff profiles' changes in the past two decades confirmed the findings from similar research conducted in Europe and Australia (Locke, Whitchurch, Smith, & Mazenod, 2016; Marini et al., 2019; Ryttberg & Geschwind, 2017; Schneijderberg & Merkator, 2013; Szekeres, 2011; Szekeres & Heywood, 2018), in that there has been "a large-scale influx of employees working on new tasks, which previously were not regarded as part of the administrative and managerial responsibilities" (Stage & Aagaard, 2019, p. 643), and who demonstrate "better prerequisites for handling work that is more ambiguous and that takes higher levels of professional interpretation (i.e., symbolic, analytic, advisory, coordination, communication, and decision making)" (p. 644). In addition, these identified emerging higher-level jobs, although continuing to be categorised as supporting core university domains, are advancing in influence and significance, encompassing activities of technology transfer, planning and strategy, university-industry partnership development and

internationalisation. These new activities are future oriented and highly specialised, and can no longer be qualified only in terms of supporting academic functions (Aberbach & Christensen, 2017; Stage & Aagaard, 2019).

Summarising these most recent bodies of research, there appears to be a certain shift towards the integration of two research foci: one on collaborative work between various university staff; and the other on the dynamics and process of the diversification of university actors. These studies are evidently of a complementary nature. In this context, the future direction of research identified by one of the data interrogating researchers as “the degree to which the increase in non-academic professionals is functional in helping universities achieve their goals and targets” (Baltaru, 2019b, p. 653) appears to be problematic or, at best, misdirected as it is only the growth in staff numbers that is proposed to be correlated with the degree of university targets’ achievements, without consideration of the increasing role diversification and boundary crossing among various staff categories, including those of professional and academic staff. It may be more generative to investigate the complex nature of university staff synergy while abandoning a redundant approach of a binary staffing division (Graham, 2018; Marini et al., 2019; Stage & Aagaard, 2019).

Finally, a scarcity of research about changes in professional staff work and their relationships with other university actors available for Asian countries, including Singapore, presents a challenge of investigating how university staff work together across the boundaries of organisation, geography, culture and professional identity to create meaningful intercultural connections while addressing global challenges and presenting glocal solutions to those challenges. There were nine sources reflecting the findings from six research studies located with a focus on university professional staff in Asian countries (Eldridge & Cranston, 2009a, 2009b; Johnson et al., 2018; Jung & Shin, 2015; Pham & Tanner, 2014, 2015; Pham & Williamson, 2020; Takagi, 2015, 2018), with only three of these studies (Pham and Tanner

[2015] and Takagi [2015, 2018]) focused particularly on the *third space* environments as they were being conceptualised in universities in Asia (in Hong Kong, Japan and Vietnam).

All three of these empirical studies (Pham & Tanner, 2015; Takagi, 2015, 2018) investigated academic and professional cross-boundary work practices and the boundary blurring between these two previously distinct domains. The significance of Takagi's (2015) research was not only that it appeared to be the first publication that applied the term *professional staff* to the Asian higher education context, but also that it was the first research study that confirmed the growing significance of the "new professionals and administrative staff" (p. 589) working in a Hong Kong university who found themselves moving between traditional administrative and academic-related spheres of work and professional identities. In acknowledging that the university *third space* was a novel and largely undescribed dimension that is yet to achieve maturation (Takagi, 2018), the author demonstrated the growing importance of this university space through the emergence of a new *academic-related* category of staff (Takagi, 2015) that aligned with the notion of *third space professionals* (Whitchurch, 2012, 2015) and the growing tendency of professional staff moving towards *third space* environments (Graham, 2013a; Veles & Carter, 2016). The point of differentiation, however, lies in the suggestion provided in Takagi's (2015) study that all the explored Hong Kong university's categories of professional staff moved explicitly towards becoming more academic.

A later study (Takagi, 2018) of a new category – *Tokunin kyoin* – "specially appointed academic staff" (p. 273), being increasingly employed by the universities in Japan to undertake projects largely belonging to the educational and administrative support domains, confirmed the growing necessity "for universities to synthesise a balance between academic cultures and implementation of new spheres in order to retain diverse workers in face of increasingly complex missions" (p. 285).

Unlike Takagi's (2015, 2018) studies, Pham and Tanner (2015) applied their research focus to collaboration between academics and professional staff (librarians) in universities in Australia and Vietnam. It appeared to be the only study that had a dual research focus: cross-boundary (professional and academic staff) with comparison between two cultural dimensions. Although this study negligibly informed this doctoral study in the area of intercultural collaboration (inter-professional collaboration was researched in each country independently, with the results compared and contrasted between the Australian and the Vietnamese institutional contexts), it provided a number of key observations about the academic and professional staff collaboration. The role of professional staff in co-contributing with academics to achieving institutional goals is not as well-established in Vietnam as it is in Australia (Pham & Tanner, 2014), and in both cultural contexts there are persisting rules, organisational structures and professional boundaries impeding staff collaboration, which was correspondingly noted by Takagi (2015, 2018) in relation to the organisational and professional boundaries that hindered the successful attainment of the new university missions. It was established, however, that:

> Despite the inevitable gap between the nature of collaboration in Australia and Vietnam, universities in both countries have experienced global impacts of the transformation of the education system and similar contextual factors that challenge academics and librarians moving toward an integrated working partnership. (Pham & Tanner, 2014, p. 35)

This small and yet significant body of research about university staff collaboration occurring in various cultural settings (Eldridge & Cranston, 2009a, 2009b; Johnson et al., 2018; Jung & Shin, 2015; Pham & Tanner, 2014, 2015; Pham & Williamson, 2020; Takagi, 2015, 2018) confirmed cross-boundary collaboration to be an important and practical way of adapting to challenging and dynamic environments, and to bring efficiencies to university

operations. These studies emphasised the importance of each professional group's contribution in bringing in its own set of skills, expertise and perspectives and the need for mutual respect for these contributions. The researchers identified the criticality of the highly developed social skills of collaborating actors, and of their dedication to developing relationships in the success of cross-boundary practices. Overall, these studies presented an inspiring shift towards closing the research gap identified by Graham (2018) to extend investigation of professional and academic staff collaboration to countries with dissimilar cultures and higher education systems.

2.6 Conclusion about the existing research hiatuses

Recent changes in the university staff debates, as discussed in this literature review, open up new research needs and opportunities, such as the antecedents of successful professional and academic staff collaboration and rewards for professional staff working in the university *third space* environments. In concluding this literature review, specific research hiatuses are presented in conjunction with the formulated research questions that were simultaneously inspired and informed by engaging with the relevant scholarly literature (Table 2.3).

Table 2.3

Alignment of Identified Research Hiatuses and Research Questions

Research hiatus or scarcity of research	Research question
Broader Context: Impacts of globalisation on university professional staff. Themes One & Three: Interpretation of various ways of working together by professional staff in Singapore universities.	Question One: How is the concept of the university *third space* understood within a broader local/global/glocal context?
Theme Two: Professional and academic staff cross-boundary intercultural collaboration in countries with dissimilar cultures and higher education systems.	Question Two: How do university professional staff in a single university across Australia and Singapore see themselves *vis-à-vis third space* collaborative work?
Themes One & Three: Cross-boundary learning and cross-boundary competence interpretation within the contemporary university context. Effective use of professional staff talent. Partnering of professional and academic staff for the purpose of achieving university goals.	Question Three: What can be learnt from investigating the intercultural, cross-campus and individual variances in professional staff members working together across boundaries?

Although there has been a notable growth in research publications about university professional and academic staff collaboration (Bossu et al., 2018), intercultural collaboration and the cross-boundary learning across diverse *third space* environments with the purpose of the more efficient use of professional staff talents across countries with dissimilar higher education systems and cultural foundations (Graham, 2018) remain topics that are simultaneously of high significance and substantially under-researched. The significance of this research topic does not appear to be decreasing in the times of perpetual local and global changes, and with professional staff continuing to be such an extraordinarily large, important and diverse group of contemporary university actors. With this research purpose and significance in mind, the next chapter presents a focused discussion of one theory and one conceptual foundation that were applied to this research.

Chapter Three – Generative theoretical and conceptual frameworks

"To define something involves drawing a boundary around it to distinguish it from something else (Zerubavel, 1993). This 'mental fence' (Zerubavel, 1993, p. 2) enables us to establish a mental sphere within which we make sense of the world." (Hernes, 2003, p. 39)

"[There is] a common interest in the learning that can take place at boundaries, both at individual and [at] organizational levels." (Akkerman & Bakker, 2011a, p. 4)

3.1 Introduction

This chapter describes how an integrative approach of combining a theory (Self-Determination Theory [SDT] [Deci & Ryan, 1980; Ryan & Deci, 2000, 2017]) and a conceptual framework (*Boundary Crossing Learning Mechanisms* [BCLMs] within the *Multilevel Boundary Crossing Framework* [MBCF] [Akkerman & Bakker, 2011a; Akkerman & Bruining, 2016]) was developed to help to shape the research design and, subsequently, to analyse the research data in order to answer the research questions. Several dominant theories that provided sources for making an informed and careful decision about selecting the most generative frameworks are presented at the start of the chapter. A detailed exposition of the two selected frameworks, their application across empirical studies of higher education, and their significance for and their applicability to this research is outlined in Sections 3.2 and 3.3, bringing the chapter to the conclusion (Section 3.5) that aligns the literature themes, research hiatuses and research questions developed and discussed in Chapter Two with those underpinning theoretical and conceptual frameworks.

In additional to the significant concept of the university *third space* (Whitchurch, 2008c, 2009b, 2012, 2018, 2019) discussed in Chapter Two, there are several theories that address the complexities of the working relationships between actors in professional settings.

For example, cultural historical activity theory (CHAT) (Engeström, 2000; Engeström, Miettinen, & Punamaki, 1999) allows the building of an ecological analysis of the relationships between institutional and individual actors in the context of boundary crossing. The theoretical tradition of CHAT draws on Vygotsky's (1978), Leont'ev's (1978, 1981) and Luria's (1978) collective school of thought that connects the purposeful actions of individuals with the larger collective activity systems that provide meaning for these actions (Akkerman & Bakker, 2011a; Engeström et al., 1999; Roth & Lee, 2016).

There are also critical theories of the intergroup dynamics, such as an *Embedded Intergroup Relations Theory* (Alderfer, 1987) and an activity-theoretical study of work collaboration and learning, which is often referred to as the third generation of CHAT, and which forms a multidisciplinary group of *developmental work research* (Engeström, 2008; Engeström, Lompscher, & Ruckriem, 2005). In these theories, boundaries become enablers for learning, whereby learning is understood broadly as change and development (Akkerman & Bakker, 2011a). An approach that is undertaken in these theories draws primarily on a group perspective and on intergroup relations that, again, may undermine the value of the diverse perspectives, requisite needs, and competencies and agency of individual actors within the diverse organisational, non-traditional, cross-boundary, collaborative contexts.

Although CHAT provides a platform to explore learning through boundary crossing, the theory offers insufficient resources to explore a diversity of context and actors. Various spatial theories, discussed in the previous chapter (Bhabha, 1994; Routledge, 1996; Soja, 1989, 1996, 2009), on the other hand, provide a rich background to the diversity of organisational contexts and individual actors, and they are instrumental in facilitating the conceptual understanding of the university *third space* phenomenon of professional and cultural hybridity (Whitchurch, 2008c). They do, however, provide few insights into the conditions that individual actors are required to meet for effective collaborative work and

learning at the boundaries. In addition, at times spaces are viewed as static interstitial positionings (Lossau, 2009) rather than as catalysts of change and development.

On reflection, each of these described theories contributed some useful ideas, and yet also appeared to require supplementation by another theory or a conceptual framework to fulfil the complete analytical potential of this research. For the purpose of this doctoral study, in order to address the identified hiatuses in the contemporary research, which were summarised in Chapter Two (Section 2.6), two frameworks were identified as possessing significant generative power:

- SDT, including *basic psychological needs* (Deci & Ryan, 1980; Gagné & Deci, 2005; Ryan & Deci, 2000, 2017); and
- BCLMs within the MBCF (Akkerman & Bakker, 2011a; Akkerman & Bruining, 2016).

The integration of these two frameworks was perceived as critical for interpreting the dynamic interplay among people's diverse individual motivations, their ability to achieve learning potential through collaboration and the contextual environments that may impact differentially on individual motivations and learning potential. The following two sections provide an overview of these two frameworks, drawing on evidence from the higher education research studies that used these frameworks, and acknowledge the selected critique of each of those frameworks.

3.2 Foundations of Self-Determination Theory in relation to staff motivations

SDT (Ryan & Deci, 2000, 2017) possesses explanatory power with its grounding in empirical research that enables the advancement of knowledge of particular organisational contexts. The theory was applied in this study to zoom in on the university *third space* environments, with full attention being given to exploring the university professional staff and their willingness to collaborate across boundaries.

SDT has its roots in human psychology. It was developed in the 1970s from research about various types of human motivations (Bandura, 1997; Deci, 1971; Hull, 1943; Lewin, 1951; Porter & Lawler, 1968; Ryan & Deci, 2000; Tolman, 1959; Vroom, 1964). It uses a meta-theory of organismic development that promotes the importance of internal resources and external conditions for a biological organism to grow and thrive (Ryan & Deci, 2000; Ryan, Kuhl, & Deci, 1997). These internal psychological needs, which are promoted by SDT as innate, inherent and core to all human beings, are the needs for *autonomy, competence* and *relatedness*. The satisfaction of these three needs is critical for an individual's flourishing and for achieving wellbeing and vitality (Gagné & Deci, 2005; Ryan & Deci, 2000, 2017). The theory postulates that these needs, or "universal necessities" (Gagné & Deci, 2005, p. 337), are of paramount significance for an individual's success in all undertakings, whether these undertakings occur in family, school or workplace settings.

Two interconnected features of SDT, its practicality and criticality, provide a requisite cohesion between this theory and the pragmatic constructivist paradigm (which is discussed in detail in Chapter 4, section 4.1.1.) of this research. SDT has a practical application to diverse contexts, including the domain of professional life. It is appropriate and sensible, therefore, to deploy it for the examination of the university staff workplace relationships. At the same time, the critical approach adopted by this theory provides the foundation for examining and comparing contexts and conditions, or "social and cultural nutrients" (Ryan & Deci, 2017, p. 4), and their effects on the satisfaction of the three basic needs, or *universals*, and, ultimately, on a person's psychological and behavioural performance.

There is an established link, afforded by SDT, between the satisfaction of the needs for *autonomy, competence* and *relatedness*, on the one hand, and an overall positive attitude towards work, on the other (Gagné & Deci, 2005; Ryan & Deci, 2017; Van den Broeck, Vansteenkiste, & De Witte, 2008). This link is established through promoting (self-

)motivation, work performance, engagement, energy, the expression of creativity, curiosity and interest in work and cognate work improvements. The theoretical and practical focus of SDT on cognitive flexibility leading to innovation was previously applied in higher education research to the investigation of the motivational factors and mindsets, work engagement and work satisfaction of university professional staff (Davis, 2018; Davis & Graham, 2018; Graham, 2013c; Regan & Graham, 2018). It was found equally applicable to the exploration of how contemporary academics perceive the material conditions of their work and professional identities (Fein, Ganguly, Banhazi, & Danaher, 2017), and, more specifically, of the effects of autonomous motivations on academic staff (Fernet, Guay, & Senécal, 2004).

Autonomy constitutes one of the universal necessities for acting with a sense of volition and having experiences of choice and self-endorsement that derive from pursuing self-selected objectives (Gagné & Deci, 2005; Ryan & Deci, 2017). Feeling autonomous ultimately means that one is able to behave in line with self-interests and personal values, thus engaging with an activity to the full extent of personal desire, ability and capability (Ryan & Deci, 2017). Within contemporary university professional staff research, Regan and Graham (2018) demonstrated that professional staff feel most autonomous when they are able to be guided by their own judgement when solving work problems and when making decisions about undertaking new roles or about participating in diverse university projects, which leads to providing deeper motivation and job satisfaction (Davis, 2018; Davis & Graham, 2018). Feeling empowered to implement a work change without expecting a supervisor's endorsement or permission was another manifestation of autonomy satisfaction (Graham, 2013c).

Enabling an individual to satisfy the critical need for self-competence, or mastery of one's social and/or professional environments, means to provide an adequate level of challenge to make a person activated, energised and interested to pursue a challenge, goal or

activity (Ryan & Deci, 2017). Translating this to the university professional staff context, researchers have found that the provision of satisfactory professional development opportunities enables staff to develop new skills and meaningful workplace connections. Establishing and using these connections enable actors to extend the use of their abilities to make a difference for their colleagues. It may ultimately develop a deeper collegiality at work, which in turn may make professional staff feel more competent and motivated to partake in new initiatives and projects (Regan & Graham, 2018).

Finally, the need for *relatedness* to others, the third core motivational universal, reflects the sense of belonging and the feeling of significance within one’s professional or social environment (Ryan, 1995; Ryan & Deci, 2000, 2017). Research shows that enabling interdependence across individual staff and groups and their identification within those professional groups, supported by managers’ respect and care for staff, may lead to enhanced autonomous motivation among employees and, ultimately, to positive work performance (Gagné & Deci, 2005; van Knippenberg & van Schie, 2000; Wall, Kemp, Jackson, & Clegg, 1986). University professional staff accounts confirmed the need for feeling “connectedness to the place, the people, and the purpose of the institution” (Regan & Graham, 2018, p. 15) when staff were making choices about entering and/or remaining in professional roles. In summary, the importance of the satisfaction of all three *basic psychological needs*, supported by conducive work environments, was found to be important in widely ranging university professional staff engagement contexts.

The final argument in relation to the applicability and significance of SDT to this research is its universal nature. The theory maintains that the core innate needs (*autonomy, relatedness* and *competence*) are essential for the optimal performance of any human being regardless of the cultural setting or a person’s cultural background (Ryan & Deci, 2000, 2017; Vansteenkiste, Lens, & Deci, 2006). These needs are expressed, perceived and satisfied

in different ways across cultures (Deci et al., 2001). The environment that provides these three needs' satisfaction is nonetheless equally important for people regardless of with which position they associate themselves on the collectivism/individualism continuum (Chen et al., 2015; Ryan & Deci, 2000). There is a recognised controversy that needs to be acknowledged in the context of the application of SDT to studies located within dissimilar – Eastern and Western – cultural settings – i.e., collectivistically (e.g., Korea) and individualistically (e.g., Australia) oriented countries. The controversy appears to be grounded in variations across interpretations of *autonomy*, and, to a lesser extent, of *relatedness* in studies of motivation across culturally diverse contexts (Kagitcibasi, 2005). As was suggested by Chen et al. (2015) and Jang, Reeve, Ryan and Kim (2009), cross-cultural psychologists, who subscribe to cultural relativism, focusing on cultural differences impacting on the wellbeing of individuals, presented a misleading interpretation of *autonomy* as independence, thus associating autonomy with individualism (e.g., Markus & Kitayama, 2003; Markus & Schwartz, 2010; Oishi, Diener, Lucas, & Suh, 1999; Rothbaum, Pott, Azuma, Miyake, & Weise, 2000). In SDT's definition, *autonomy* is the sense of volition and self-endorsement of an activity (Ryan & Deci, 2017); it is therefore construed in the broader context of *agency*, or acting willingly, without experiencing coercion (Kagitcibasi, 2005). In this regard, *autonomy* is analogous to *agency* in the sociological tradition, as the capacity of actors "for voluntary action to challenge or modify the conduct expected of them rather than to conform to expectations" (Campbell, 2009, p. 415), or a *transformative capacity* (Giddens, 1984, 1986, 1991). As Campbell (2009) appealed for a generative combination of these two traditions, SDT's progenitors, Ryan and Deci (2017), proposed to study three *basic psychological needs* in dissimilar cultures focusing on variations on their expressions, on the importance placed on each of these needs and, finally, on the diversity of sociocultural conditions that are likely to promote or suppress the satisfaction of those needs.

It is for the reason of illuminating cultural diversity that these two traditions – of social psychology expressed through SDT and illuminating the importance of human behaviour and self-motivation; and of sociology aligning autonomy with agency and paying due attention to social structures – are employed in this research. The differentiated expression and interpretation of the needs for *autonomy, relatedness* and *competence*, which are (pre)defined by organisational and sociocultural environments, and the significance of these variations for the university professional staff research across such dissimilar cultural settings as Australia and Singapore, were, therefore, a compelling reason for applying SDT with the mindful emphasis on the sociological interpretation of autonomy as agency as one of the analytical lenses for this research.

An integrated approach afforded by SDT to explore the following critical elements was therefore identified as being conducive to exploring professional staff cross-boundary collaboration:

- human inherent psychological needs within professional contexts;
- staff differentiated perspectives on these basic needs' satisfaction across diverse cultural and organisational contexts, and how these perspectives are connected with explicit views of rewards and recognition for cross-boundary collaboration and motivations for further collaboration;
- the impacts of diverse cultural environments on professional staff's willingness to collaborate across various boundaries; and
- particular skills or mindsets that may support professional staff collaborative work.

While SDT, being considered a prevalent theory of motivation and therefore widely applied to research about educational and organisational settings, explores the dynamics of the relationship among the satisfaction of individual needs, sociocultural environment and expressed motivation for learning or work, the perceived dynamism of the relationship

among these three elements may be equally perceived as the shortfall of this theory. Such dynamism of this theory has its limitations, as it refers to the relationship among the constituents, rather than to the changes as they occur across time and space. For example, what happens to an individual's self-motivation within a collaborative work project that takes precedence over a certain period of time and spans multiple boundaries? It is suggested that, once *basic psychological needs* are satisfied, individuals "are likely to feel energized and to actively engage in subsequent need fulfilling activities" (Van den Broeck et al., 2008, p. 983; see also Ryan & Deci, 2000). The mechanism of such activation and its impact on individual (self-)motivation appear to be unclear. The exploration of the actual process of collective work and of the effects of crossing the boundaries of professional group identity and culture calls therefore for a supplementary framework.

3.3 *Boundary Crossing Learning Mechanisms* within the *Multilevel Boundary Crossing Framework*

The generative or *learning potential* of boundaries (Akkerman & Bakker, 2011a, p. 133; see also Akkerman & Bruining, 2016) presupposes the interpretation of learning in a broad, pragmatic sense of change and development, including such transitions as acquiring "new understanding, identity development, change of practices, and institutional development" (Akkerman & Bakker, 2011a, p. 142). The actual activity of "(re)establishing continuity in actions and interactions across practices" (Akkerman & Bruining, 2016, p. 244) is called *boundary crossing* owing to its potential for the transformation of the individual or of the relationships between individuals and the organisation. Boundary crossing or cross-boundary work as a particular mode of professional interactions is given special attention in the scholarly literature as it manifests a mode of achieving intercultural, interprofessional and cross-border collaboration occurring in various *overlapping* (Whitchurch, 2008c, 2010a, 2012), *matrix* (Graham, 2013a), *hybrid* (Henkel, 2010), *liminal* (Allen Collinson, 2006)

spaces or within *shifting arenas* (Birds, 2015; Shelley, 2010), collectively known as the university *third space* (Whitchurch, 2008c, 2012, 2018; Whitchurch & Gordon, 2010, 2017).

The four learning mechanisms of *identification, coordination, reflection* and *transformation* and their interdependencies as explicated by Akkerman and Bakker (2011a), and more recently demonstrated by Akkerman and Bruining (2016), as operating on a number of levels, including the intrapersonal (within an individual), present a valuable opportunity for a granular approach to analysing what occurs when actors, or collaborating partners, work together on various projects. Akkerman and Bakker's (2011a) new approach to the interpretation of the learning production at the boundaries was founded on Bakhtin's (1981) philosophical tradition of the dialogical nature of all human activities expressed through multiple voices within multiple and infinitely contextualised meanings. The relevance and importance of applying dialogical and diversity-focused approaches to this research are based on the interpretation of boundaries through various learning progressions (as opposed to a linear representation) of heterogeneous (as opposed to homogeneous) actors who are learning and transforming the practices of working together. The synthesis of four boundary-crossing learning mechanisms and of the explicative characteristic features of the processes aligned with these mechanisms derived by Akkerman and Bakker (2011a) from the vast literature on boundary crossing is synthesised in Table 3.1.

Table 3.1

Boundary Crossing Learning Mechanisms *(BCLMs)' Synthesis (Adapted from Akkerman & Bakker [2011])*

BCLMs: essence	Characteristic accordant processes	What happens across the whole process	What happens at accordant stages of the process	Primary focus of potential realisation	Comparative focus
Identification: "coming to know what the diverse practices are about in relation to one another" (p. 150).	1. Othering 2. Legitimating coexistence	Delineation between practices becomes unclear or completely destabilised owing to potentially increasing similarities between practices. Core identity of each of the intersecting sites comes under question.	1. Potential emergence of tensions at contestation of personal or cultural identities. Negotiation of various identities that do not coexist in harmony. 2. Could go both ways: a) Attempts at identification may fail owing to threats to individual professional identities, which could not be reconciled. b) Successful legitimation through reconstructing own identities in the light of others' identities may prevail.	Reconstruction of boundaries: results in a renewed sense of practices and reconstruction of current identities.	Meaning-oriented
Coordination: "creating cooperative and routinized exchanges between practices" (p. 150).	1. Communicative connection 2. Efforts of translation 3. Increasing boundary permeability 4. Routinisation	Search for common practices enabling flow of work or collaboration often without necessarily establishing consensus and with minimal dialogue between practices.	1. Communicative connection between diverse practices is sought through linking different actors, creating common language and common/shared understanding of project goals. 2. A balance in the ambiguity of boundaries based on intersubjective grounds and on the diversity of possible understandings is being achieved. 3. Lowering of awareness or effortless and seamless transition when crossing various boundaries is being achieved. 4. Procedures to automate operational practice are being located.	Overcoming or transcending boundaries: through establishing continuity, facilitates future development and seamless movement between sites.	Practice-oriented, opposite to transformation as no or minimum collaboration is involved

BCLMs: essence	Characteristic accordant processes	What happens across the whole process	What happens at accordant stages of the process	Primary focus of potential realisation	Comparative focus
Reflection: "expanding one's perspectives on the practices" (p. 150).	1. Perspective making 2. Perspective taking	Realisation and explication of differences between practices and deeper learning about own and others' practices, leading to enrichment of individual's self-identity beyond its current state.	1. Individual knowledge, understanding or awareness of a particular issue is being made explicit. 2. Looking at oneself through the eyes of others is involved, which has significant implications within intercultural communication.	Transcending boundaries: results in an expanded set of perspectives and a new identity construction informing the future practice.	Meaning-oriented
Transformation: "collaboration and co-development of (new) practices" (p. 150).	1. Confrontation 2. Recognising shared problem space 3. Hybridisation 4. Crystallisation 5. Maintaining uniqueness of intersecting practices 6. Negotiation of meaning	Profound change and potential creation or emergence of a new – boundary – practice involving real dialogue between collaborating partners that may lead to sustainable impact.	1. A crucial start on the way towards transformation. Participants from different sites come together to explore one another's worlds, practices and inter-relations. Cultural differences are made explicit, leading to discontinuities and subsequently generating negotiation of meaning. 2. A direct response to confrontation. Potential interactional breakdowns need to be resolved collaboratively. 3. Practices capable of crossing their boundaries create new – hybrid/in-between/boundary – practices. Ingredients from different practices and perspectives converge to create a new and unfamiliar form or a completely new practice. A new place then develops its own boundaries. 4. An extreme version of learning at the boundaries involves not only change of practice but also its embedding into operations. This process is actioned through developing new routines of procedures that embody what has been created or learned.	Transcending boundaries: dialogue is the primary focus of investigation.	Practice-oriented, opposite to coordination as the central process is a dialogue or collaboration, most radical of all mechanisms as it involves actual, real change and embedding of a new practice

BCLMs: essence	Characteristic accordant processes	What happens across the whole process	What happens at accordant stages of the process	Primary focus of potential realisation	Comparative focus
			5. While pursuing the creation of a hybrid practice or field, the maintenance of the integrity of old and familiar space takes place. Established practices are reinforced (similar to the identification process). 6. Continuous joint work at the boundary takes place in order to preserve productive outputs of boundary crossing. Participants from different sites engage in real dialogue and collaborate on solving shared problems at the boundary.		

The four learning mechanisms are not perceived as hierarchical or as occurring in a sequential manner, and not all four of these are realised in actual collaboration work (Akkerman & Bakker, 2011a). Through all the mechanisms, and in particular through *identification* (othering) and *reflection* (both perspective-taking and perspective-making), diversity in its broad sense – diversity of teams and individuals, and their identities, ideas and insights – is illuminated.

Boundary crossing thus becomes described through the value of diversity introduced by various actors into the process of working together. This is particularly important for understanding higher education professionals working across cultural boundaries in countries like Australia and Singapore, when they encounter a range of local and global impacts and attempt to navigate boundaries in their intercultural collaborative practices.

The extension of the actor-centred BCLMs' classification (Akkerman & Bruining, 2016) of complex inter-relationships between actors and organisational units is organised in a novel MBCF (Table 3.2). Within this framework, each BCLM is being reinterpreted across three types of engagement (intrapersonal or micro, interpersonal or meso and inter-institutional or macro). It is particularly valuable in relation to this research as various university *third space* environments were the examples of the complex cross-boundary collaboration, which involved relationships among multiple actors, among various groups, and between organisational units and wider external communities at large. Cross-boundary competence, defined by Walker and Nocon (2007) as the "ability to manage and integrate multiple, divergent discourses and practices across boundaries" (p.181), came to the fore in this research as it is suggested that it is a significant competence, acquisition or development that will assist professional staff in becoming more willing and motivated to cross various boundaries and to work together with academic colleagues, and, more broadly, that will help individuals to realise their *transformative capacity* (Giddens, 1984, 1986, 1991).

Table 3.2

Multilevel Boundary Crossing Framework *(MBCF) (Adapted from Akkerman & Bruining [2016, p. 246])*

Learning mechanism	At the institutional level (action and interaction between organisations or organisational units)	At the interpersonal level (action and interaction between actors from different [institutionalised] practices)	At the intrapersonal level (participation of a person in two or more [institutionalised] practices)
Identification	Organisations or units come to (re)define their different and complementary nature.	People come to (re)define their different and complementary roles and tasks.	A person comes to define his or her own simultaneous but distinctive participatory positions.
Coordination	Organisations or units seek means or procedures for institutional exchange and cooperation.	People seek shared means or procedures for exchange and cooperative work.	A person seeks means or procedures to distribute or align his or her own participatory positions in multiple practices.
Reflection	Organisations or units come to value and take up another's perspective to look at their own practice.	People come to value and take up another's perspective.	A person comes to look differently at his or her own participatory position because of the other participatory position.
Transformation	Units face a shared problem space and start collaborative work or merge institutionally.	People face a shared problem, start collaborative work and may build group identity.	A person develops a hybridised position in which previously distinctive ways of thinking, doing, communicating and feeling are integrated.

Although Akkerman and Bakker's (2011a) conceptual framework was applied originally by Akkerman and Bruining (2016) to exploring professional development school partnerships as an intersection among teacher education, schooling and academic research, and later to inter-professional pedagogical collaboration between schools and external partners (Vesterinen, Kangas, Krokfors, Kopisto, & Salo, 2017), and between teacher researchers engaged in doctoral research (Bakx, Bakker, Koopman, & Beijaard, 2016), *inter alia*, it was only recently that it was introduced to the higher education research and applied to exploring learning production in interdisciplinary scholarly collaboration (Fitzgerald et al., 2018). Fitzgerald et al. (2018) found that, in the university spaces where the perspectives of diverse actors and the complementarity of their multiple unique expertise and capabilities converge to produce new learning, it is critical to reward staff for their contributions to venturing into other than their own spaces. By doing this, staff contribute their energy and innovative ideas to develop new practices at the boundaries. It is therefore extremely important to acknowledge staff efforts in order to foster cross-boundary work and collaboration (Fitzgerald et al., 2018).

In applying the BCLMs within the MBCF to this research, the non-hierarchical, non-sequential and largely situation-dependent manner in which four BCLMs become enacted (Akkerman & Bakker, 2011a; Akkerman & Bruining, 2016) may need to be further explored, to identify whether linear, parallel or irregular patterns of CBLM enactment become manifest at various stages of collaborative projects and working practices' maturation in the contemporary university context, as it is also unclear from the earlier research which conditions contributed to the cross-boundary competence development of individual actors (Bakx et al., 2016). A final caveat refers to the point made by Akkerman and Bruining (2016), who argued with educational and organisational scientists that the transformation mechanism may not be ideal for all settings. This argument may relate to the interpretation of

the notion of transformation. If transformation as learning is understood as a desirable outcome of individual or collective agency – or *transformative capacity* (Giddens, 1984, 1986, 1991) – applied to making a difference or change), it may be argued that it is universally required in any cross-boundary collaborative practice.

To summarise, professional staff, despite being challenged when crossing the boundary between the familiar and the unknown, become exposed to new learning, which often includes the reconceptualisation of their own practices or learning the new practices, which leads to building new collaborative relationships and, potentially, to large-scale or enduring transformation. It is necessary, therefore, to approach organisational, cultural, group and role boundaries as the mechanism of communication (Bowker & Star, 1999) or, more broadly, as a learning device, as opposed to being merely a medium of group categorisation and individual identification. This is where Akkerman and Bruining's (2016) MBCF with its four critical boundary-crossing mechanisms provided an indispensable lens to explore diverse university *third space* environments focusing on learning as transition to new spaces where "new understanding, identity development, change of practice, and institutional development" (Akkerman & Bakker, 2011a, p. 142) occur.

3.4 Conclusion about the alignment of the literature themes, research hiatuses, research questions and the underpinning conceptual and theoretical foundations

Bringing together the constituent conceptual parts discussed in this thesis so far, Figure 3.1 is a heuristic approach to representing a connection between the evolutionary path of synthesising the themes from the literature and the research gaps derived from the literature exploration (***Literature Themes*** and ***Research Hiatuses***), and the ways that the developed research questions (***Research Questions***) are being underpinned by the concepts and theoretical and conceptual frameworks that were considered to be generative for this

research (***Frameworks***).

Figure 3.1 Alignment of literature themes, research hiatuses, research questions and underpinning concepts, and theoretical and conceptual frameworks

In the previous chapter, the following connection and a degree of overlap between the themes that were identified from engaging with the scholarly literature and the analysed research gaps were discussed:

- Broad Research Context: dialectics between local and global impacts on contemporary universities in Australia and Singapore → Impacts of globalisation on the university professional staff;
- Theme 1: university staff collaboration → Reflection on the ways of working together: professional and academic staff in the intercultural contexts;
- Theme 2: institutional boundaries and staff diversity → Cross-boundary collaboration, learning and competence in the intercultural contexts; and
- Theme 3: university professional staff perceived through the university *third space* phenomenon → Learning at boundary crossing: professional and academic staff partnering for achieving university goals.

Further interpretation of the gaps derived from the analysis of the Broader Research Context and Themes 1 and 3 led to the formulation of the first research question, which called for the investigation of how the university *third space* concept is understood in the local/global environment. Similarly, the research gap derived from the analysis of Theme 2 translated into the second research question, which focused on the Australian and Singaporean university professional staff's perspectives on the *third space* collaboration. Finally, the third research question about the cross-boundary learning from the professional and academic staff engagement occurring in the intercultural contexts was the product of a further, closer examination of the intersection of Themes 1 and 3 and of the research gap that was generated from that examination.

The university *third space* (Whitchurch, 2008c) and *third space* environments (Whitchurch, 2018) provide deep contextual meaning to the processes of the university

professional and academic staff's cross-boundary work. This meaning is developed further by engaging the powerful lens of the theoretical (SDT) and conceptual (MBCF as a synthesis of four boundary-crossing mechanisms describing learning as actions and interactions in the inter- and intra-personal and inter-institutional settings) foundations. The notion of the university *third space* (Whitchurch, 2008c, 2009b, 2012, 2015, 2018, 2019) appears to be profoundly entrenched in and enriched by the unity of spaces, boundaries and human agency. Heidegger reflected in his acclaimed essay *Building, Dwelling, Thinking* (Heidegger, 1971) on the existential power of a boundary:

> A space is something that has been spaced or made room for, something that is cleared and free, *namely within a boundary*, Greek *peras*. A boundary is not that at which something stops but, as the Greeks recognized, the boundary is that from which something begins its presencing. (p. 151)

From the pragmatic constructivist's perspective, *space*, although defined by a *boundary*, is not limited by its enclosed position, but rather initiates its own *presencing*. *Third space*, therefore, through activating its inherent potential for disruption and breaking through "an interstitial position on the fence" (Lossau, 2009, p. 70), is also more than a bounded space. It disrupts the traditional social and cultural binaries (Bhabha, 1994), and creates a "*disordering* of difference" (Soja & Hooper, 1993, p. 184). While the actual process of boundary crossing is often associated with feelings of discomfort by those entering the unknown grounds related to real or perceived challenges to their professional identities (Bakx et al., 2016; Suchman, 1993), *third space* eventually becomes the space of transformation and innovation, which provides for its inhabitants an opportunity to challenge the traditional and to imagine the new possibilities through employing their agency. The significance of *third space*, therefore, lies in providing the actors who are crossing various boundaries and entering those spaces with an opportunity to engage their power of "transformative capacity"

(Giddens, 1986, p. 11) through learning, where learning is interpreted in a broader sense of revolutionising practices through action and interaction (Akkerman & Bakker, 2011a). In the context of this research, a deep engagement with the concept of the university *third space* (Whitchurch, 2008c) provided the possibility of a fruitful discussion about the university professional staff's boundary-crossing for the purpose of collegial and collaborative work with their academic colleagues. The conceptual interrogation of the BCLM of *identification, coordination, reflection* and *transformation* (Akkerman & Bakker, 2011a), which may become activated when professional staff engage in boundary crossing at various institutional levels (Akkerman & Bruining, 2016), makes a case for a deeper analytical thinking about how professional staff, as individual actors, entering and inhabiting unknown and novel spaces of interaction and social change, use agency and express their needs for enacting *autonomy, competence* and *relatedness* (Ryan & Deci, 2000) at various stages of the interaction with their colleagues and within different cultural contexts. On an institutional level, the *transformative capacity* (Giddens, 1984, 1986, 1991) of professional staff may be perceived as reaching its fuller potential if the environment – the university *third spaces* – is articulated as collaborative spaces and being normalised and nurtured as places for working and creating together, encouraging diverse thinking and innovating. It may be argued that professional staff venturing into the unknown territories (engaging in professional practices that may be different from those that are prescribed by their position description and scope of responsibilities) of intercultural and inter-professional collaboration require support, encouragement and reward from the university leadership.

In this chapter, working in unison, sociological and psychological disciplinary traditions of exploring the complexity of human behaviour (university professional and academic staff cross-boundary collaboration with a focus on professional staff agency expressed through the tenets of SDT) within the multidimensional organisational

phenomenon of boundary crossing within the university *third space* environments provided a fruitful lens to examine the research topic.

As with any heuristic, the visual approach to presenting the unity and interconnectedness of the products of the thematic exploration of the literature, the identified gaps, the development of the research questions and the grounding of these questions in the overarching theoretical and conceptual abstractions, which was afforded by Figure 3.1, does not claim to be ideal or even rational; instead, it presents an abstract way of achieving an immediate goal of consolidating and aligning the outcomes of the discussions presented in the first two chapters of the thesis, thus providing a springboard to the discussion of the research design, methodological choices and methods, which is the topic of the next chapter.

Chapter Four – Methodology

"[A] discipline without a large number of thoroughly executed case studies is a discipline without [the] systematic production of exemplars, and a discipline without exemplars is an ineffective one. In social science, a greater number of good case studies could help [to] remedy this situation." (Flyvbjerg, 2006, p. 242)

4.1 Introduction: Revisiting field of inquiry, research context, goals and questions

Higher education, as a dedicated education industry sector and as an increasingly important research field, has been demonstrating an upwards growth trend in Australia and globally (Bentley & Graham, 2020). This research is located within this field of research that is continuously gaining ground and legitimacy (Altbach, 2014; Brennan & Teichler, 2008; Goedegebuure & Schoen, 2014; Kehm, 2015b; Kehm & Musselin, 2013; Klemenčič, 2014; Macfarlane, 2012; Macfarlane & Grant, 2012; McKenna, 2014; Teichler, 2005), and that is characterised by its strong connection with policy making and practice (Clegg, 2012; Kehm, 2015b). Broadly following the thematic scope, originally developed by Tight (2012, 2018), and elaborated and updated for the current higher education sector's developments by Bentley and Graham (2020), the theme of this research can be defined as *academic work/professional staff*, although it is important to recognise the difficulty in classifying such studies that cross thematic boundaries among university professional, academic and university leadership (Bentley & Graham, 2020).

Higher education research as a field originated, and has been developing, as an intersection of related disciplines as opposed to one discrete discipline (Brennan & Teichler, 2008; Clegg, 2012; Kehm & Musselin, 2013; Macfarlane & Grant, 2012; Tight, 2012, 2015; Tight & Huisman, 2014). Sharing a foundation with other types of applied inter-disciplinary

research that contribute to "the transfer of knowledge between hitherto bounded disciplines, thus constructing methodology as an arena and area of expertise that spans disciplines" (Alasuutari et al., 2008, p. 5), this research study pragmatically borrowed theoretical and conceptual lenses from the fields of organisational sociology (to explore professional staff boundary crossing and collaboration) and social psychology (to illuminate specific cross-boundary competence and requirements for professional staff to be more inclined towards university *third space* collaborative work). In this sense, this research is part of higher education research that is defined as "an open-access discipline with the prime purpose of providing a service for higher education itself" (Harland, 2012, p. 703).

In the contemporary global higher education environment, there is evidence that the university professional staff's talents continue to be untapped and not deployed entirely to address university goals (Ryttberg & Geschwind, 2017). Professional staff are argued to be located at times on the margins of universities' intellectual and collaboration capital (Paldam, 2014; Rhoades, 2010b; Rhoades & Sporn, 2002; Ryttberg & Geschwind, 2017; Wright & Boden, 2010), despite being a group of university actors that is significant in size and increasingly diverse in their roles and activities. Likewise, there are examples of professional staff working across various organisational, professional and cultural boundaries, working together with academic colleagues and contributing to the success of universities, students and wider communities (Birds, 2015; Botterill, 2018; Graham & Regan, 2016; Padró et al., 2018; Szekeres, 2011). Collaboration and cross-boundary work frequently take professional staff to spaces of simultaneously unfamiliar and potentially contentious, and present opportunities for creativity, innovation and building collegiality, or what has also been described as university *third space* (Whitchurch, 2008c).

The goal of this research was to explore various cross-boundary collaborative university projects and, applying the concept of university *third space*, to identify the specific

requirements that need to be met in order for professional staff to be more willing to collaborate across boundaries. Locating the research within an Asia-Pacific geographical and a wider globalisation context came about through the exploration of the literature combined with pragmatic considerations of opportunities where such a research enquiry could take place. The focus was placed on exploring the following research questions:

> *Research Question 1: How is the concept of the university* third space *understood within a broader local/global/glocal context?*
>
> *Research Question 2: How do university professional staff members in a single university across Australia and Singapore see themselves vis-à-vis* third space *collaborative work?*
>
> *Research Question 3: What can be learnt from investigating the intercultural, cross-campus and individual variances in professional staff members working together across boundaries?*

After revisiting the field of inquiry, significance of research, specific goals and questions on which the study focused – these elements combined making a cornerstone of a research design framework (Campbell, 1975; Flick, 2015; Flick, Kardorff, & Steinke, 2004; Maxwell, 2013; Patton, 2015) – the discussion progresses to the integrated assumptions and beliefs, or the worldview (Jones, Torres, & Arminio, 2006), that guided the research design and methodology (Section 4.1.1).

The remainder of the chapter (Sections 4.2 - 4.5) discusses the methodological considerations that informed the research plan, the particular methods that were employed, and the axiological and ethical position that underpinned the research process (Section 4.6). The chapter concludes with acknowledging the limitations of the research design (Section 4.7).

4.1.1 Why constructivism is not enough: The pragmatic constructivist paradigm

A researcher's philosophical perspective is part of her or his whole worldview, which plays a critical part in framing and implementing each step of the research (Anfara & Mertz, 2006, 2015; Flinders & Mills, 1993). Philosophy "underwrites our research activity and that is enough of a reason for engaging with its ideas and insights" (Williams & May, 1996, p. 10; see also Bazeley, 2013; Jones et al., 2006; Mertens, 2015). It also provides a bridge between theory and methodology (Eisner, 1993; Schwandt, 1993), and therefore needs to be made explicit.

The philosophical paradigm that guided this qualitative research being an inherent part of the professional life and identity of the researcher was pragmatic constructivism. As an integrated set of assumptions and beliefs about the nature of knowledge and about the ways that it is acquired, valued and systematised (epistemology), and the understanding of the nature and location of reality and existence (ontology) (Jones et al., 2006), pragmatic constructivism provided an interesting and productive combination of lenses to engage in deep exploration of the researcher's self, the research participants and the ways that this research could and should be conducted.

Ontologically, being a constructivist means believing in the subjectivity of social reality and in the working of the conscious mind in making sense of the reality inhabiting the world of individual beings (Denscombe, 2014; Denzin & Lincoln, 2013; Guba & Lincoln, 1989, 1994, 2005; Lincoln & Guba, 1985; Tobin & Kincheloe, 2006; Tobin & Kincheloe, 2006). The constructivist perspective on reality on its own, however, holds an inherent limitation in that it fails to reconcile an absolute scientific truth with the constructed meaning of reality (Haas & Haas, 2002). This is where the pragmatic perspective becomes a second critical element to balance the assumptions. Being a pragmatist is acknowledging and respecting the role of actors and how they contribute to the construction and organisation of

reality. Reality for the researcher therefore is being simultaneously an observer of, and an active participant in, a university as a micro-world within a large, dynamic and complex world of higher education within a large, dynamic local and global macro-world. The identity of the researcher, the research participants and the entire process of research are susceptible to the changing and incoherent surrounding world (Gioia, 1998). Likewise, the researcher and the participants have *transformative capacity* (Giddens, 1984, 1986, 1991), or agency to internalise the manifested external reality of the outside world to make a difference in that world that they inhabit, thus enacting their "power to", as opposed to their "power over" (Lukes, 1974, p. 31), transform their university through actor-world relations (Nørreklit, 2011), such as through engaging in everyday interactions, learning, suggesting new ideas for innovation and, for the researcher, through the research and dissemination of newly acquired knowledge.

Similarly, the question of knowledge and of the ways that it is constructed and organised requires a combined – constructivist and pragmatist – viewpoint. Knowledge is being constructed and interpreted through the (inter)actions of individual actors. In practical terms, however, and more specifically in the workplace context, this leaves critical questions unanswered: how do activities become successful, and who orchestrates and organises the actions (Nørreklit, 2011)? In other words, the critical role of the actor as someone who is managing, controlling, leading or, more broadly, producing an action towards the construction of organised reality remains ambiguous (Nørreklit, 2011). For this research that explored the university professional staff and their activities in the *third space* – an interactive space between the actors and the university world – it was not sufficient to describe the constructed nature of their (inter)actions within the university spaces. The use of *third space* as a distinct spatial perspective with its own epistemological and ontological assumptions (Soja, 1996) that predicate multiple truths and the transcendence of binaries

required a particular theory: one that would illustrate the practical nature of the research with its problem-solving potential, and enable the illumination of learning through boundary crossing. It would also be required to highlight the transformations that learning could achieve for individual staff members and for the university at large.

Pragmatic constructivism is a theory that is used by social scientists (Manicas, 1998) and education scholars (Bellmann, 2006; Garrison, 1995), and in a range of business and organisational management studies (Uslu, 2018; Lueg, Lueg, Andersen, & Dancianu, 2016; Nørreklit, 2017; Nørreklit, Nørreklit, & Israelsen, 2006; Nørreklit, Nørreklit, & Mitchell, 2010a; Seal & Mattimoe, 2016; Trenca, 2016), for its grounding in the traditions of the philosophy of pragmatism of John Dewey and the interactionism of George Mead. This tradition values practicality-based actions recognised as the direct connection that exists between the abstraction of truth and the role of human agency in meaning construction. In the views of both theorists (Dewey and Mead), it is the thinking, self-reflecting and acting human beings who create ideas and give rise to knowledge in the process of acting and interacting in response to a certain (problematic) situation, and this is how knowledge is accumulated (Corbin & Strauss, 2008).

For studies of complex organisations, such as universities, pragmatic constructivism is particularly useful as it contends that the interactions within organisations are constructed rather than assumed, and the outcome of these interactions may be either successful or ineffective based on the nature of the relations between the actors and the organisational world (Nørreklit, 2011). A more recent (in the last two decades) interpretation of pragmatic constructivism, which is increasingly used in the studies of complex organisations, maintains that there are certain critical elements that are needed to connect *actors* with the organisational environment in order for their (inter)interactions to be successful. These elements, or dimensions, are *facts*, *possibilities*, *values* and *communication*. All four

dimensions, with the overarching and driving dimension of individual and collective *actors*, working in unison shape the reality enabling the effectiveness of the workplace actions (Lueg et al., 2016; Nørreklit et al., 2006; Nørreklit, 2011). The relations are therefore not precipitated but constructed through interactions, and may be successfully functioning or hindered by putative faults in the actor-world relations (Nørreklit, 2011). Facts are viewed as a critical foundation for an (inter)action to begin. Facts also need certain catalysts or possibilities to progress to (inter)action, thus creating choice for the actors. At this point, an additional element is suggested to integrate within a dimension of *possibilities*, and that element is *challenges*, which is perceived as a countervailing force to possibilities: challenges may hinder the (inter)actions despite having a choice of possibilities, and here is where the further dimension of *values* becomes critical: if the actors' values lie within the range of their possibilities, then, despite having challenges obstructing their interactions, they may still choose to progress with their actions. *Values* may be interpreted broadly in this framework, and include actors' motivations and desires for certain action. *Values* also encompass organisational culture and the implicit values that underpin it – for example, the value of diversity that is enacted through the institutional policies, social media and marketing activities visible to the actors. *Communication* provides an integration of *facts, possibilities* (and *challenges*) and *values*, and becomes a critical building block towards the generation of new knowledge through changing practices. *Actors* is an overarching defining factor of the success or efficiency of the changing of practices through (inter)actions, as they are the holders of values, interpreters of possibilities and challenges, owners of motivations, designers of communicative practices and, ultimately, leaders of innovation and transformation through self-agency in the organisational contexts.

Within the context of this research, the university actors are staff, with professional staff particularly being a focus of the exploration. The unique toolkit of pragmatic

constructivism (Lueg et al., 2016; Nørreklit, 201; Nørreklit, Nørreklit, & Mitchell, 2010b; Nørreklit, Raffnsøe-Møller, & Mitchell, 2016) provided a valuable integrated framework for exploring all the dimensions of the university staff interactions working in the *third space* project environments:

- ***Facts*** about the factors impacting on university work and about university *third space* projects selected for investigation, provided by the research participants, that were interpreted as both the context of and the foundation for staff (inter)actions;
- ***Possibilities*** (and ***challenges***) drawn from the research participants' active reflection on and discussion about the nature of their work in general, and about the specific projects in which they took part (e.g., the perception of organisational and professional boundaries by professional staff);
- ***Values*** that underpinned motivations for collaboration (Ryan & Deci, 2000, 2017), and that informed the participants' relationships, actions and interactions while crossing various boundaries when working together on the projects;
- ***Communication*** as an integration of facts, possibilities (and challenges) and values expressed through the *Boundary Crossing Learning Mechanisms* presenting the potential for learning (Akkerman & Bakker, 2011a); and
- ***Actors*** expressed through the participants' discussions about professional staff roles, identities and the changing nature of work and interaction with academic colleagues.

This contemporary take on pragmatic constructivism provided scaffolding to study the university *third space* collaboration, and afforded a deeper insight into organisational, group and individual practices (Knoepfel, 2007). The integration of all key dimensions with actors as an overarching agentic factor provided a critical interpretative framework afforded by the pragmatic constructivist worldview. In each explored collaborative project, it became visible whether different dimensions converged for successful staff collaboration, or

alternatively whether a deficiency of any one or more dimensions could be connected with unsuccessful or inefficient actions. A contemporary take on pragmatic constructivism thus presented a vantage point from which to see how the bridge between abstract and concrete, and between theory and practice, could be built, and how to use this bridge to study university staff's multiple boundary crossings in order to understand the university *third space* collaboration.

4.2 The qualitative research orientation

Qualitative research affords a variety of methodological practices and ways of interpreting data (Denzin & Lincoln, 2013) in order to explore "the processes at play…the meanings that individuals make of particular events, and…[to understand] why people do what they do and think what they think" (Given, 2016, p. 2), and to collaborate in the co-production of knowledge (Yin, 2016). Qualitative research was aligned with the pragmatic constructivist worldview of the researcher, and assisted in achieving the research goals. This section briefly discusses why qualitative research provided an appropriate solution to integrating the *facts, possibilities* (and *challenges*)*, values* and *communicative mechanisms* afforded to *actors* to meet the research goals.

4.2.1 The rationale for qualitative research

Qualitative methodology is used to investigate a complex phenomenon that has not been sufficiently or entirely researched. Despite an increasing interest in the contemporary university *third space* phenomenon in the last decade, studies that focus specifically on the topic of university staff collaborative work within the university *third space* environments are few (Birds, 2015; Botterill, 2018; Gravett & Winstone, 2018; Hobson et al., 2018; Silvey et al., 2018; Whitchurch, 2012, 2018). The qualitative approach enabled the researcher to explore and interpret the ways that the actors-participants were making meaning (Merriam,

2009; Williams & May, 1996) of their cross-boundary experiences in working on the university *third space* projects.

The tradition of naturalistic inquiry in education pioneered by Guba and Lincoln (1994) refers to the utility of qualitative data for exploring participants' views in order to clarify existing theories. Being the focus of this research, complex actor-university and professional and academic staff relationships thus provided another argument for the suitability, "*persuasiveness* and *utility*" (Guba & Lincoln, 1994, p. 108) of the qualitative orientation that has been popular(ised) in higher education research (Tight & Huisman, 2014).

Ultimately, as the research approach is selected based on how well it can answer research questions (Nudzor, 2009), the qualitative approach was deemed to be suitable for the inquiry into how university professional staff interpreted collaborative cross-boundary work while providing a granular view of the pragmatic constructivist dimensions of *facts, possibilities* (and *challenges*), *values* and *communication* through *actors*' learning as it occurred through cross-boundary collaboration. The next section discusses multiple case study chosen for this research from several other carefully considered methodologies, while also acknowledging the common criticisms of case study research.

4.3 The case study research method

Case study research method is used for an *in-depth analysis of a bounded system* (Bazeley, 2013; Bogdan & Biklen, 1992; Crowe et al., 2011; Denscombe, 2014; Merriam, 2009, 2014; Merriam, Tisdell, & Ebscohost, 2016; Patton, 2015; Stake, 1995, 2006), or a "naturally occurring phenomenon" (Denscombe, 2014, p. 56), with its strong connection with real life (Rowley, 2002; Ryan, 2012). Several critical considerations that contributed to making the final methodological selection from other possible options are discussed in the following sub-section.

4.3.1 The rationale for case study research

Deploying case study research not only afforded a strong alignment of the pragmatic constructivist paradigm, the research goal and the methodological focus, but also facilitated meaningful insights into the experiences of the individual project participants. This vicarious exposure to university cross-boundary collaboration provided "the building blocks for the knowledge base constructed by each individual" (Mabry, 2008, p. 216). By adopting case study method, this research also continued the methodological tradition commonly used in higher education professional staff research (Berman & Pitman, 2010; Botterill, 2013; Graham, 2013b; Lewis, 2012; McMaster, 2005). This ensured continuity, comparability and connectivity with existing empirical studies.

Other methodological frameworks were considered for their appropriateness and utility, with grounded theory methodology found also to be applicable to this study. The decision against using grounded theory was based on the research purpose, which was not to build a theory of any scale, but instead to develop a set of practical recommendations and a conceptual framework of the university professional staff collaboration.

Although a *third space* phenomenon itself is an embodiment of boundary crossing and, at times, of boundary transcendence or defiance, each instrumental case (Stake, 1995) represents a definable or discrete entity. Contextuality and the dynamic nature of case study method therefore provided critical affordances for exploring a complex phenomenon occurring in an organisational setting (Denscombe, 2014; Eisenhardt, 1989; Silverman, 2016).

Finally, case study method is a sound strategy for a small-scale research study (Denscombe, 2014), given that it is a flexible and practical methodology that advocates using multiple various research methods rather than any one method (Merriam, 2009). This characteristic aligns it with the pragmatic constructivist paradigm. Ultimately, it was the

unique ability of using diverse analytical tools to facilitate an in-depth interrogation of data drawn from a "bounded system" (Bazeley, 2013; Crowe et al., 2011; Denscombe, 2014; Flyvbjerg, 2006; Merriam, 2009, 2014; Merriam et al., 2016; Patton, 2015; Stake, 1995; Stake & Usinger, 2010) that was presented by each individual case, combined with an opportunity to explore the connection between individual professional staff as actors and the organisational context of the university *third space* environments in which staff collaborated, that decided in favour of case study research in preference to other methodological possibilities.

4.3.2 Common criticisms of case study method and how they were addressed

The flexibility of case study research tends to be simultaneously its advantage and a source of its criticism. On the one hand, the shifting nature of case study research design can potentially lead to undesirable outcomes related to gathering evidence possibly unrelated to the original research questions (Yin, 2014). The adaptive nature of case study research, on the other hand, afforded a review of the original proposition of the centrality of the university *third space* phenomenon in the light of the participants' insights and related experiences. This review assisted the introduction of the additional elements to the interview guide, with those questions being explored in the second phase of research. The ability to modify the research design continuously was therefore a methodological strength and an advantage as opposed to being a limitation.

The lack of clarity in establishing the unit of study and the limited predictability around the final outcome of the research are the other perceived disadvantages often attributed to this methodology (Merriam, 2009; Yin, 2014). Cases possess a certain fluidity and take various shapes (Bazeley, 2013), which may present challenges of interpretation. Describing a case – which in this research was an individual university project encompassing professional and academic staff cross-boundary collaboration – alleviated the analytical

(con)fusion of the unit of analysis and the topic of exploration. Each project was presented as a distinct episode defined by actors and their activities, sequence of events, place and specific context (Stake & Usinger, 2010), which was consistent with the pragmatic constructivist dimensions of actor-university (inter)actions.

The potential lack of clarity around the case study research outcomes was resolved by proposing and delivering two tangible research outcomes:

1. a set of practical recommendations for the university professional staff and the university leaders to assist professional staff in developing cross-boundary competence, and in enabling their future collaboration; and
2. the development of a framework of university *third space* cross-boundary collaboration in order to consolidate the understanding of what makes collaborative projects successful, and to develop a foundation for future successful staff collaboration across borders.

Another common criticism of the case study methodology is the limited generalisability of the case research findings in general, and of qualitative case study findings in particular (Burgess, 2000; Hammersley, 2012; Lieberson, 1991; Platt, 2007). The continued "low regard" (Crasnow, 2011, p. 28) in which researchers hold case study method relates primarily to "the problem of the small *n*" (Crasnow, 2011, p. 28), and to the overall challenge of drawing meaningful conclusions from just one case (Platt, 2007). If generalisability is interpreted as the "applicability of findings beyond the research sample" (Ayres, Kavanaugh, & Knafl, 2003, p. 872), then, by employing the clearly described and rigorously applied analytical procedure of cross-case data analysis integrated with techniques of managing data within each case through a novel "*Adaptive Qualitative Research Synthesis*" (described further in Section 4.5.5 of this chapter), this research produced contextually substantiated findings that can be extended and applied to cases outside this

research. Through extending the understanding of generalisability, “qualitative findings provide idiographic knowledge about human experiences to *readers*, who can apply qualitative findings to the care of individuals who are in situations similar to that of those in the sample from which [the] findings came” (Miller, 2010, p. 192; see also Sandelowski & Barroso, 2003a). By developing and applying rigorous within-case and cross-case integrated analysis, and by including more than one case and a substantial number of participants in the study (34 participants across two research phases in five diverse cases), this research thus addressed the widely debated concern of qualitative case study research generalisability. It achieved this goal by producing rich idiographic knowledge, and by synthesising findings from all cases, and it created a bridge between research and practice (Sandelowski & Barroso, 2003b).

Finally, in order to address the criticism of subjectivity, which is perceived as a predicament of case study researchers (Flyvbjerg, 2006; Guba & Lincoln, 1981; Ruddin, 2006), a series of practices was deployed to increase the rigour of the research process and the credibility of the findings. These practices included:

- engaging with fellow higher education researchers who are involved in exploring cognate and dissimilar topics of contemporary higher education;
- publishing in peer-reviewed journals and engaging in professional associations’ forums;
- improving research practice through participating in various professional training activities about research methodology and methods;
- presenting at academic research conferences to engage with other researchers and higher education practitioners locally and globally to seek alternative opinions and insights about the research data and their interpretations.

In summary, criticisms associated with case study research were addressed and moderated by staying true to the research study purpose and goals, being particular about the parameters of the cases selected for investigation, exploring more than one case with a number of diverse participants across two phases of the research and, finally, being explicit about the researcher's subjectivity and engaging in activities to increase the trustworthiness of the research outcomes.

4.4. The principles and elements of the research design

This section starts with a brief overview of research principles, then moves to the detailed discussion of research sites, research design and data analysis techniques. An accidental discovery of penicillin by Sir Alexander Fleming in 1928 and Louis Pasteur's incidental discoveries relating to bacteria were examples of the role of curiosity in the world of natural sciences (Åkerström, 2013). These examples, although belonging to the natural sciences, are particularly relevant to the discussion of this qualitative research design as they indicate that "curiosity is…something we must cherish and court" (Åkerström, 2013, p. 11), and that the decisions about methods should not be made in a linear and single-minded fashion to pursue solely the alignment with the research purpose, unlike what is posited by many distinguished methodologists (Creswell, 1994; Marshall & Rossman, 2010; Rudestam & Newton, 2014; Seale, 2018). The selection of research design and methods needs to be guided by inspiration, zest for discovery and audacity to employ unconventional approaches if these novel methods might lead to new insights that may improve professional practices. Research methods need to facilitate flexibility of the research process and to allow potentially unexpected directions, emergent insights and alternative steps to be undertaken in the course of research (Bazeley, 2013; Denscombe, 2014; Maxwell, 2013; Patton, 2015). An unexpected direction in the qualitative case study research, about which Yin (2014) warned novices and experienced researchers alike, is not something to be concerned about, but rather it is a

natural outcome of the open-minded outlook of a researcher who is prepared to embrace the unexpected, and to be diligent about describing and interpreting all the data.

The following key principles suggested by Åkerström (2013, pp. 13-14) enabled the researcher to make, at first hesitant, and then, as the research process progressed, more confident, steps in developing the craft of many generations of qualitative researchers, rather than displaying “a slavish adherence to methodological rules” (Miles & Huberman, 1994, p. 5):

- *keeping the wide perspective* – reading widely from cognate and wider fields and disciplines, and reflecting on the diverse theoretical assumptions, methodological practices and specific methods used in various fields of research (Bazeley, 2013);
- *attending to research detail* – keeping the continuity of the research audit trail by recording insights derived from each interview, and by pursuing an exploration of other directions that may have been missed otherwise;
- *avoiding the conventionality or methodological orthodoxy trap* (Åkerström, 2013; Bazeley, 2013; Patton, 2015) – these two principles are strongly aligned with the researcher’s conviction that research should improve understanding of social and organisational phenomena, with human actors being at the centre of constructed reality and interpretation, thus benefiting the research participants and the whole organisation (Nørreklit et al., 2016);
- *remaining “loyal to the moral of science (and not to other agendas)”* (Åkerström, 2013, p. 15) – this research was driven by an open mind and curiosity and remained faithful to genuine exploration and discovery.

Using these guiding principles to design and undertake the research opened up opportunities for discovery, serendipitous or otherwise.

4.4.1 The research sites

One regional Australian university, referred to passim as "Tropical University (TU)", with teaching and research agendas and international reach represented through its campus in Singapore, was selected as the site for this doctoral research. Its status as the current workplace of the researcher facilitated access to research participants, and enabled faster and more efficient data gathering, which presented both opportunities and challenges further discussed as the ethical considerations in Section 4.6 of this chapter, with the limitations of this research design decision being discussed in Section 4.7.

TU provided favourable conditions for this research. Firstly, it operated across campuses and study centres in Australia, with the campus in Singapore presenting a unique opportunity to explore the phenomenon of the university *third space* cross-boundary collaboration in a single organisation through a diversity of cultural settings. Secondly, significant differences in organisational structure between the two sites – Australia being a public university campus, and the Singapore campus being a private educational institution with a university status – presented an atypical scenario with a unique contextual interplay of personal, organisational and national culture variances. Finally, locating the research across three tropical campuses (two in Australia and one in Singapore) extended the research to include a broader Asia-Pacific region, thus addressing the complexities of the local/global university nexus (van der Wende, 2017).

4.4.2 The two-phase research design, phase sequencing and research logic

This research was intended to explore a certain phenomenon occurring in a real university world; accordingly, it was not intended to test any existing theories or hypotheses. Flexibility was recognised therefore as a critical consideration in designing this qualitative study (Bazeley, 2013). After a number of contemporary research design approaches was considered (Bazeley, 2013; Creswell, 2007; Denscombe, 2014; Flick, 2015; Flick et al.,

2004; Marshall & Rossman, 2010; Maxwell, 2013; Merriam, 2009, 2014; Merriam et al., 2016; Patton, 2015; Schwandt, 2007; Stake & Usinger, 2010), a "*planned flexibility*" (Bazeley, 2013, pp. 32-33) was applied in order to remain true to the research purpose, and to be open to emerging possibilities through adjusting the research questions and data analysis methods to reflect diverse perspectives and various operational contingencies. The design also factored in a pragmatic need to achieve a balance between the limitations of time and resources of a doctoral research effort and the imperative to produce useful and practical results (Bazeley, 2013; Flick et al., 2004).

Figure 4.1 presents two distinct sequential phases of this research that incorporated a "*three-stage* research logic of abduction, deduction and induction" (Reichertz, 2014, p. 131). As "*abduction searches for theories, deduction for predictions, induction for facts*" (Reichertz, 2014, p. 131), the research moved from abduction to deduction and concluded with induction.

ABDUCTION
< August 2017

Preliminary Exploration and Discovery
- drew on ideas and insights from experience
- reviewed literature (first iteration)
- main ideas: university impacts of globalisation (macro), higher education (meso) and *third space* (micro) levels
- explored theoretical foundations and key dimensions of pragmatic constructivism

PHASE ONE
Exploratory
August - December 2017

Phase One Data Collection
- interviewed 17 TU managers
- used purposeful selection of participants

DEDUCTION
January 2017 - July 2018

Phase One Data Analysis
- analysed interview transcripts
- developed preliminary codes and codebooks
- developed insights for Phase Two exploration

PHASE TWO
Multiple Case Study
August - December 2018

Phase Two Data Collection
- studied five cases of the TU cross-boundary collaboration
- used purposeful maximum variation selection of cases
- interviewed 17 professional and academic staff

Phase Two Data Analysis
- analysed interview transcripts
- developed and validated codes and codebooks (both Phases)

INDUCTION
January - December 2019

Phases One and Two - Working with Findings and Themes
- developed first order themes (analysis of Phase One and Phase Two findings)
- engaged with literature (second iteration)
- developed second order (synthesis of Phase One and Phase Two) themes
- engaged with literature (third iteration)
- developed third order (interpretation of Phase One and Phase Two) composite themes
- translated interpretations into recommendations and conceptual framework of professional staff *third space* collaboration

Recommendations and conceptual framework

Figure 4.1 Research design, phase sequencing, research logic and timelines

Phase One was the introductory exploratory phase that focused on the university *third space* phenomenon, and on the academic and professional staff collaboration within a wider context of the local and global challenges impacting on TU. It was designed to answer the first research question about how the concept of the university *third space* was understood by TU staff within a broader local/global dialectical context. Data collection encompassed 17 semi-structured, in-depth interviews with TU academic and professional managers from various organisational units in Australia and in Singapore. The preliminary data analysis of the findings assisted in calibrating Phase Two of the research; it sharpened the research focus and refined the research questions to fit the context, participants and locations (Given, 2008).

Phase Two, the main exploratory phase, commenced immediately after the Phase One preliminary data analysis was completed. A multiple case study focused on further exploration of the situated complexities (Stake, 2006) within each cross-boundary TU collaborative project. Five cases, which represented various types of the *third space* environments (Whitchurch, 2018), were selected for their ability to illuminate the phenomenon of the university *third space* collaboration and the dynamics of the staff relationships that characterised those relationships. The integration of data from both the exploratory Phase One and the subsequent multiple case study in Phase Two achieved crystallisation, which is a desirable outcome of many qualitative research studies (Ellingson, 2009; Lincoln, Lynham, & Guba, 2011; Stewart & Gapp, 2017). Such crystallisation assisted with developing strong recommendations aimed at informing organisational changes, influencing decisions and improving practices (Patton, 2015; Stake & Usinger, 2010). Finally, introducing the preliminary research phase (Phase One) enabled the researcher to achieve a better understanding of her own capability as a developing researcher (Bazeley, 2013; Marshall & Rossman, 2010).

4.4.3 The selection of participants for Phase One

Participants for Phase One were sourced through a utilisation-focused selection method based on the principles of "*credibility, relevance, and utility for primary intended users*" (Patton, 2015, p. 295). Knowledge of organisational structure and experience working at TU facilitated the researcher's access to TU middle and senior managers, both academic and professional, all of whom were in a decision-making capacity, with responsibilities including staff management at the time of the research. Three main principles were used to "locate *excellent* participants to obtain excellent data" (Morse, 2007, p. 231):

- the anticipated ability of a manager to comment on a wide range of topics identified for the exploratory phase;
- the diversity of participants (including type of employment, location, age, gender, education level, years of professional experience, employment level and ethnicity) for gathering diverse insights;
- the anticipated ability to recommend specific cross-boundary projects for Phase Two of the research.

There was no predefined number of participants prior to the commencement of the study. It was decided to "interview as many subjects as necessary to find out what you need to know" (Kvale & Brinkmann, 2015, p. 140). The decision was to conduct approximately 15 interviews for practical reasons of the volume and complexity of analysable data (Kvale, Brinkmann, & Kvale, 2009) and to review the number if the desired diversity or thematic richness were not achieved.

The selected managers of TU Australia (TUA) were approached directly, and the managers in Singapore (TUS) were approached via the initial introduction from the Campus Dean, and then directly by the researcher via email with the invitation to participate in the doctoral exploratory research. Each participant who agreed to be part of the study was asked

to complete a brief demographic questionnaire (Appendix 1) for the purposes of ensuring the maximum diversity of perspectives and of the range of recommended projects for the second phase of the research. The background information of all the Phase One participants is summarised in Table 4.1.

Table 4.1

Phase One Participants: Summary of Demographic Data (Collection Period: September – December 2017)

Participant pseudonym	PS/ AS[1]	AUS/ SIN[2]	Age	Gender	Education	Years Work[3]	Level	Role	Years Role[4]	Ethnicity	Ethnicity (other)
Grace	AS	AUS	51-60	F	PhD	2	AC-E	Dean	2	Australian	N/A
Nimala	AS	AUS	61+	F	PhD	10+	AC-E	Head	10	Australian	Sri Lankan
Harry	AS	AUS	51-60	M	PhD	10+	AC-E	Director	7	Australian	N/A
Jane	AS	AUS	41-50	F	MA	5-10	AC-C	A/Dean	< 1	Australian	American
George	AS	AUS	61+	M	PhD	10+	AC-D	Head	15	European	N/A
Nancy	AS	SIN	51-60	F	PhD	5-10	AC-C	Manager	10	Australian	N/A
Meera	AS	SIN	61+	F	BA	5-10	AC	Manager	5-10	Indian	Singaporean
Cheryl	PS	AUS	51-60	F	TAFE	10+	HEWL9	Manager	3	Australian	N/A
Tom	PS	AUS	41-50	M	MA	1-3	Senior	Director	3	Australian	N/A
Beryl	PS	AUS	51-60	F	Grad Cert	3-5	HEWL10	Manager	3	Australian	N/A
Larry	PS	AUS	61+	M	Grad Dip	10+	Senior	Director	5	Australian	N/A
Francesca	PS	AUS	31-40	F	PhD	5-10	HEWL9	Manager	< 2	Australian	N/A
Mark	PS	AUS	51-60	M	MA	10+	Senior	Director	3	Australian	N/A
Moss	PS	AUS	41-50	M	BA	10+	HEWL8	Manager	3	Australian	N/A
Tamara	PS	AUS	51-60	F	BA	10+	Senior	Director	< 1	Australian	N/A
Anika	PS	SIN	41-50	F	MA	10+	HEWL7	A/Director	10+	Indian	Singaporean
Henry	PS	SIN	31-40	M	MA	3-5	PS8P	Manager	< 1	Singaporean	Chinese

1.) Professional staff or academic staff. 2.) Located in Australia or Singapore. 3.) Number of years the participant has worked in the institution. 4.) Number of years the participant has been in this role.

After the preliminary analysis of the data collected progressively from the first 10 interviews, it was decided to continue interviewing to reach the point at which no further interview introduced new insights or discussion points. Although, as is often expected in qualitative interviewing, thematic exhaustion and variability were anticipated to be reached at 12 interviews (Guest, Bunce, & Johnson, 2006), in this research such a point was reached when 17 participants had been interviewed.

4.4.4 The selection of cases and participants for Phase Two

Following the emergent (Mabry, 2008) or iterative (Brinkmann, 2013) design, and applying the "*planned flexibility*" (Bazeley, 2013, pp. 32-33) principle, Figure 4.1 (Section 4.4.2) shows how the preliminary analysis of the findings from Phase One led to a recalibration of the focus of the research and of the research questions for Phase Two (multiple case study). The key focus of Phase Two thus shifted towards the interconnectedness between various university *third space* collaborative environments and professional staff's particular needs and capabilities required for collaborative work across multiple boundaries.

The five projects selected purposefully for exploration were completed (entirely or as a completed first phase of a multi-phase project) in the last six years. This time limit was imposed in order to gain an improved access to TU participants, and as an assumption of a higher level of recall of details about the projects and the professional relationships. In deciding how many cases to include in the study, the researcher was guided by the pragmatic need to include all three university *third space* types (Whitchurch, 2012, 2018) across culturally varied research sites (Australia and Singapore). Five cases were selected according to purposeful sampling of a maximum variation (Patton, 2015). Including "*information-rich*" (Patton, 2015, p. 53) and significant (Yin, 1994) cases was required to capture the diversity

itself, and to identify common patterns of significance across the diverse cases (Flyvbjerg, 2006; Patton, 2015).

Three projects were recommended by the Phase One participants, and the other two were recommended through the conversation with the managers who were not part of the research. The following criteria were used to determine the suitability of each of the identified projects:

- relevance of a selected project to the research purpose and focus;
- diversity of contexts across all projects;
- opportunity for learning about the complexity of the context and the dimensions of the phenomenon afforded by the exploration (Patton, 2015; Stake & Usinger, 2010).

Based on these principles and the findings from the second round of engaging with the literature (see Figure 4.1 in Section 4.2.2), five projects were selected, with a brief profile of each of these projects summarised in Table 4.2. Out of the five selected projects, three took place on Australian campuses, whereas the two other projects related to the Singapore site involving cross-border cross-national collaboration with staff in Australia. Further description of each case, and the visual representation of the relationship between the selected projects and TU core activity domains, are provided in Chapter Five (including Figure 5.2).

Table 4.2

Projects Included in Phase Two: Multiple Case Study

Project ID	Location	Scale[1]	Time[2]	Status[3]	N[4]	University *third space* type[5]
TUA, Case #1	Australia	Small	1	1	3 (2PS+1AS)	Semi-autonomous transitioned to independent
TUA, Case #2	Australia	Large	1	2	4 (3PS+1AS)	Semi-autonomous transitioned to integrated
TUA, Case #3	Australia	Small	2	1	2 (1PS+1AS)	Semi-autonomous transitioned to integrated
TUS, Case #1	Singapore & Australia	Large	1	2	4 (2PS+2AS)	Semi-autonomous/ integrated
TUS, Case #2	Singapore & Australia	Small	1	1	4 (2PS+2AS)	Integrated

1.) Number of staff included in case study: Small ≤ 10; Large > 10. 2.) 1 = Occurred recently or in the past 1-3 years. 2 = Occurred in the past 4-6 years. 3.) 1 = Completed all phases. 2 = Initial phase completed. 4.) These interview participants include both professional and academic staff (PS+AS). 5.) Framed by Whitchurch's (2012, 2018) typology.

With regard to the participants' profiles within each investigated case, it was important to ensure that at least one professional and at least one academic staff member were included to produce both a panoramic canvas and an in-depth analysis of academic and professional staff's views. Participants in each case were sourced through the purposeful snowball selection method (Patton, 2015). The selection process was a collaboration between the researcher and the leading participant in each of the selected projects to minimise the

selection bias characteristic of the purposeful sampling method. The background information about the Phase Two participants is summarised in Table 4.3.

Table 4.3

Phase Two Participants: Summary of Demographic Data (Collection Period: August – December 2018)

Participant pseudonym	PS/AS[1]	AUS/ SIN[2]	Age	Gender	Education	Years Work[3]	Level	Role	Years Role[4]	Ethnicity	Ethnicity (other)
Jane2 TUA, Case #1	AS	AUS	41-50	F	MA	10+	AC-C	A/Dean	<3	Australian	American
Amelia TUA, Case #2	AS	AUS	41-50	F	MA	10+	Senior	A/Dean	10+	Australian	Aboriginal
Harry2 TUA, Case #3	AS	AUS	51-60	M	PhD	10+	AC-E	Director	8	Australian	N/A
Nina TUS, Case #2	PS	SIN	41-50	F	PhD	5-10	AC-C	Head	<1	European	N/A
Paul TUS, Case #2	AS	SIN	41-50	M	PhD	10+	AC-D	Campus Dean	3	Singaporean	N/A
Nancy2 TUS, Case #1	AS	SIN	51-60	F	PhD	10+	AC-D	A/Dean	<1	Australian	N/A
Samantha TUS, Case #2	PS	AUS	31-40	F	BA	5-10	HEWL8	Manager	2	Australian	N/A
Sheldon TUA, Case #1	PS	AUS	51-60	M	TAFE	10+	HEWL7	Research Support	10+	New Zealander	N/A
Norah TUS, Case #1	PS	AUS	51-60	F	MA	1-3	Senior	Director	2	Australian	N/A

Participant pseudonym	PS/AS[1]	AUS/ SIN[2]	Age	Gender	Education	Years Work[3]	Level	Role	Years Role[4]	Ethnicity	Ethnicity (other)
Magda TUA, Case #2	PS	AUS	51-60	F	BA	10+	HEWL10	Manager	3	Australian	N/A
Vera TUA, Case #2	PS	AUS	41-50	F	TAFE Diploma	3-5	HEWL6	Evaluation Support	<1	Australian	N/A
Abby TUA, Case #2	PS	AUS	31-40	F	TAFE Certificate III	5-10	HEWL8	Manager	1	Australian	N/A
Joseph TUS, Case #1	AS	AUS/SIN	41-50	M	PhD	10+	AC-E	Director	1	Australian	N/A
Myles TUA, Case #3	PS	AUS	30	M	BA	10+	HEWL8	Research/ IT Support	3	Australian	N/A
Foster TUA, Case #1	PS	AUS	41-50	M	MA	1-3	HEWL9	Manager	<2	Australian	N/A
Henry2 TUS, Case #2	PS	SIN	31-40	M	MA	5-10	PS8P	Manager	<2	Singaporean	Chinese
Kim TUS, Case #1	PS	SIN	51-60	F	TAFE Diploma	5-10	PS3P	Admin Support	8	Singaporean	Chinese

1.) Professional staff or academic staff. 2.) Located in Australia or Singapore. 3.) Number of years the participant has worked in the institution. 4.) Number of years the participant has been in this role.

The data collection for Phase Two also included documents pertaining to the projects. Those documents collectively provided additional sources of background project information or information about the roles of professional staff within those projects. As these documents were provided inconsistently, it was decided that they would not be analysed as part of the data corpus. The next sub-section discusses why qualitative interviewing was deployed to collect participants' views in both phases of this research, a particular analytical focus that the interviewing adopted and the approach to interview design that was undertaken.

4.4.5 The interviewing: The reasons, the approach and the design

The benefit of engaging in qualitative interviewing was that it allowed the researcher through asking questions (Geertz, 1986) to "enter into the other person's perspective" (Patton, 2015, p. 426; see also Byrne, 2004; McCracken, 1988), and to capture "the complexities of their individual perceptions and experiences" (Patton, 2015, p. 442). Since it was the perspectives of TU managers (Phase One) and of TU academic and professional staff who took part in selected cross-boundary collaborative projects (Phase Two) on which the research was focused, the qualitative interviewing was deemed to be an appropriate method.

There were assumptions made prior to selecting participants. The majority of those assumptions was common to participants in both phases of the research:

- possession of sufficient knowledge of the TU world and about the selected project;
- willingness to share perspectives and insights with the researcher;
- ability to recommend (for Phase One participants only) (a) specific cross-boundary collaborative project(s) that would fit the research purpose and criteria for Phase Two;
- direct participation (for Phase Two participants only) in one of the selected projects.

All participants' viewpoints were assumed *a priori* to be "meaningful and knowable" (Patton, 2015, p. 426), as well as extractable to be made explicit through the interview process. Making those assumptions, however, promoted "the elevation of the experiential as

the authentic" (Atkinson & Silverman, 1997, p. 305; see also Atkinson, Delamont, & Coffey, 2003; Potter & Hepburn, 2005; Silverman, 2013, 2017), which often questions the legitimacy of using interviewing as an optimal research method if the research goal is to elicit participants' perspectives and experiences. Such legitimacy is being questioned by social constructionists, who oppose the inappropriate use of interviewing as research methods, and who advocate using observational techniques. The main purpose that social constructionists pursue, however, is to investigate "how social realities are produced, assembled, and maintained" (Silverman, 2016, p. 24; see also Kvale & Brinkmann, 2015), and not so much what is happening. By contrast, pragmatic constructivists place equal importance on both aspects of human actor-world meaning-making construction: the "what" (facts) and the "how" and "why" (opportunities, motivations, values and communications).

Other research methods, including observation, were considered for this research. Although observation would have delivered a first-hand account of *how* collaboration in TU developed, it would not have elaborated *what* professional and academic staff considered important for professional staff to engage in further collaboration. Despite differences in the ways that social constructionists and pragmatic constructivists are positioned epistemologically, active interviewing – the leading qualitative interviewing method promoted by social constructionists (Gubrium & Holstein, 1998, 2012; Holstein & Gubrium, 1995, 2003, 2011, 2016; Silverman, Gubrium, & Holstein, 1999) – was selected for this research, as a way of co-constructing the meaning by the researcher and the participants.

The quality and meaningfulness of information obtained through interviews are arguably highly dependent on the interviewer (Bazeley, 2013; Byrne, 2004; Patton, 2015). The interviewer's ability to establish and maintain rapport with the participant becomes even more critical in interviewing participants from different cultures (Ryen, 2003). Careful consideration was given to interviewing across cultural boundaries, including participants of

varied nationalities, and for a few of them not having English as their first language. In order to achieve a higher quality of data through obtaining meaningful information across all interviews, interview guides (Holstein & Gubrium, 1995; Patton, 2015) were designed using plain, accessible, transparent language using neutral words and a logical, non-repetitive sequence of questions. The interview questions were tested on three people unrelated to the research study, and based on their feedback were modified and simplified.

The interview guides were based broadly on Patton's (2015) design, and were informed by the work of many distinguished qualitative interview practitioners (Charmaz, 2006; Holstein & Gubrium, 1995; Kvale et al., 2009; Rubin & Rubin, 2012). The guides were used primarily to ensure "that the same basic lines of inquiry are pursued with each person interviewed" (Patton, 2015, p. 439), and that all key topics were being discussed. They were sufficiently flexible that "new questions and discussion items are added or combined as the interview unfolds, according to the organization and diversity of meanings being conveyed" (Holstein & Gubrium, 1995, p. 56). Each guide briefly outlined the research purpose, the broad goals set for each phase of the study and the expected outcomes. The introduction also included the main reason for selecting the participant and re-requesting permission to record the interview.

The Phase One interview guide was divided into three parts, with questions moving from concrete experiences to higher levels of abstraction. In the **introduction,** each participant was asked about her or his experiences working on a diverse collaborative project that involved professional and academic staff. The **intermediate** set of questions was aimed at eliciting information about other similar collaboration projects at TU, and about how professional staff worked across boundaries. The questions were expanded to include an elicitation of opinions about the global and local impacts on their work at TU and, more specifically, on TU staff working together. The **closing** questions focused on the perceived

value of cross-boundary work and collaboration, as well as on staff identities. The questions were designed based on the first round of the literature review on the topics of university *third space*, staff collaborative work and the impacts of globalisation and culture on university actors.

The Phase Two guide drew from the themes that emerged from the preliminary analysis of the Phase One findings. It also incorporated learning from the second round of the literature scan (see Figure 4.1 in Section 4.4.2). The questions were divided into specific areas of investigation, including the final brief section, which branched into separate sets of questions for academic and professional staff. The questions incorporated the following focal points:

- specific project questions (project facts and experiences);
- opinions and values (autonomy);
- opinions and values (diversity and relatedness);
- knowledge and learning (competence);
- organisational culture (support, environment and values);
- feelings and attitudes (future motivation and aspirations);
- questions for professional staff about opportunities for collaborative project work;
- questions for academic staff about their opinions about professional staff cross-boundary collaboration.

The full versions of the Phases One and Two guides are included in Appendix 2. The active interviewing method proved to be appropriate for exploring the complex phenomena of TU cross-boundary collaboration within various university *third space* contexts. The active interviewing "format that accommodates contextual shifts and reflexivity" (Holstein & Gubrium, 1995, p. 55) allowed the integration of *facts, possibilities* (and *challenges*), *values* and *communication* in order to co-create a reality of diverse university *third space* projects.

Exploring the multivoicedness and alternative stories (Bakhtin, 1981) of the interviewed staff called for a particular approach to interviewing and, consequently, for a special type of data analysis, which is the focus of the next section.

4.5 The analysis of data

Data analysis began at the interview stage, which was consistent with qualitative data analysis that occurs concurrently with data collection and management (Given, 2008; Saldaña, 2011). Key data analysis elements included:

- working with interview transcripts;
- using a computer-assisted qualitative data analysis software (CAQDAS) for data analysis;
- developing codes and codebooks and employing code validation techniques;
- creating five narrative case summaries to introduce explored projects, and validating those summaries with case study participants;
- using a novel approach to data analysis, synthesis and interpretation ("*Adaptive Qualitative Research Synthesis*").

The following five subsections discuss these elements, and provide a detailed description of the "*Adaptive Qualitative Research Synthesis*" (Section 4.5.5) that was used for the consolidation of all data treatment steps.

4.5.1 Working with interview transcripts

After the interviews were conducted, a more focused analysis was undertaken (Brinkmann, 2013). Transcribing of the audio recordings of the interviews was completed by the researcher almost in their entirety. As the average time of the interviews was 60 minutes, five out of 34 randomly selected interviews were initially transcribed using the voice recognition software in order to decrease transcription effort. Such methods are increasingly common in interview research (Brown, 2002; Johnson, 2011), which delivered the results of

uneven accuracy and quality. For example, the computer program was at times failing at transcribing accented English speech. Neither the time efficiency nor the quality provided by software-assisted transcription was therefore conducive to replacing the traditional method of transcribing the audio-recorded interviews (Lapadat & Lindsay, 1999; MacLean, Meyer, & Estable, 2004; Poland, 2003).

All interviews were transcribed using the active interviewing framework with the transcription guide adapted from Poland (2003) and provided in Appendix 3. The transcription process encompassed multiple listening to the audio-recording of each interview, checking the typed text against both the recording and the brief field notes taken after each interview, and pausing to take a note of an emerging theme, an unusual expression or a potentially meaningful conversational turn.

The *member checking* (Charmaz, 2006; Guba & Lincoln, 1989; Patton, 2015; Poland, 2003; Sandelowski, 1994) approach was used as part of the ethical obligation to research participants, and as a pragmatic aim to increase data validity. Despite being a common approach used for verification or reflections (Brinkmann, 2013; Creswell & Miller, 2000), this approach may have problematic consequences (Hoffart, 1991; Poland, 2003). While this may be a legitimate and ethical practice of providing participants with "a right of reply" (Harvey, 2015, p. 26), people tend to become anxious seeing their words in print with little or no editing (Poland, 2003). The outcome of applying *member checking* in this research was that 33 out of 34 interviewed participants offered neither amendments to content nor clarifications to transcribed text marked as "unclear". This response rate is consistent with what is informed by the interview research literature (Doyle, 2007; Harvey, 2015). It remains debatable whether this validation technique improves research credibility or clarifies the meaning of the narrative output.

4.5.2 Using a computer-assisted method to analyse the data

For data coding, a software program NVivo 11 was used. It is a solution widely used in qualitative (including case study) research across various disciplines (Woods, Paulus, Atkins, & Macklin, 2016). While acknowledging the limitations of any computer-assisted method (namely, the potential loss of contextualisation of insight leading to the diminished significance of findings (Atherton & Elsmore, 2007), the method provided valuable and practical solutions. It afforded an automated data structuring and a single repository of all data sources (including interview transcripts and demographic information). NVivo 11 also produced simple data queries and thematic maps to assist with data interpretation. Overall, the use of CAQDAS to assist with data storage, management and analysis proved to be practical and effective.

4.5.3 Developing the codes: The codebooks and validation techniques

The main principle that guided the data analysis process (coding data and developing initial, *first order*, themes) was "variability" as opposed to "standardization" (Popay, Rogers, & Williams, 1998, p. 346), maintaining that the diversity and richness of meaning are an integral part of a qualitative inquiry. Aiming for understanding through exploration, the researcher employed all three levels of coding: abductive, deductive and inductive (Kvale et al., 2009; Reichertz, 2014; Saldaña, 2011). Data coding was assisted by writing memos about developing codes and concepts (Bazeley, 2013; Bazeley & Jackson, 2013) within the NVivo environment. Using the research journal notes, writing the memos and engaging with literature assisted the codes' development.

Coding is an equally insightful and laborious process and, in the absence of a research team, a single researcher needed to rely on alternative ways of continuous validation of the developed codes. Three methods were used to increase the validity and meaningfulness of the created codes. Firstly, the researcher developed detailed codebooks following the format

recommended by Bernard, Wutich and Ryan (2017) and Bazeley (2013). The codebook included the following parameters: brief and extended code descriptions; inclusion and exclusion criteria; and typical and atypical examples of each code application (Bernard et al., 2017). The codebooks were continuously updated and clarified as the coding progressed. An excerpt from the Phase One codebooks is provided in Appendix 4. Secondly, randomly selected sections of coded data were sent to research supervisors for their review of the developed codebooks to achieve external reliability (Gibson & Brown, 2009; Guest, MacQueen, & Namey, 2012). Thirdly, the researcher kept revisiting and reviewing the developed codes and sections of coded material. Such self-validation techniques, combined with the supervisors' validation, provided clarification of individual codes and the code structure (hierarchy) aimed at increasing the credibility of the research findings (Fereday & Muir-Cochrane, 2006).

The process of iterative coding drew from two sources: external (from research literature and the researcher's professional practice and experience); and internal (from participants' narratives). Three hierarchical coding approaches – collapsed, semi-extended and fully extended – for each research phases are provided in Appendix 5 to demonstrate the dynamic coding structure between phases, and to present visually the transition from a lower to a higher level of inductive abstraction. Keeping the research journal, developing and continuously improving the codebooks, and applying code validation techniques provided the grounds for the enhanced credibility of the research findings.

4.5.4 Creating five narrative case summaries

Conducting active interviewing within the constructivist pragmatist tradition, the researcher was driven by the genuine desire for creative collaboration around the meaning construction (Harvey, 2015; Honan, Hamid, Alhamdan, Phommalangsy, & Lingard, 2013). The traditional practice of involving participants in the research process has been requesting

participants to check the transcribed interviews (Bazeley, 2013; Harvey, 2015). Another approach was considered for achieving credibility and trustworthiness of the findings. The Bakhtinian (Bakhtin, 1981) dialogical approach was regarded as a more collaborative and ethical alternative to the traditional *member checking* technique. During Phase Two, narrative summaries were constructed for each of the explored project to describe the *facts* (the first element of the pragmatic constructivist paradigm). These case summaries narratively combined the voices of all participants interviewed for that case, thus achieving a greater interpretative value of research data and opening up avenues for new directions. Those narrative summaries were then sent to the participants interviewed for each respective case, inviting them to provide their opinion about the accuracy and completeness of the crafted story. In this way, active interviewing with its principle that "meaning-making is a continually unfolding process" (Holstein & Gubrium, 1995, p. 52) sought to rebalance the relationships between the researcher and the participant to make them equal partners in the meaning-making endeavour.

Each narrative was a story that was created using the narrative template (Bazeley, 2013; Olson, 2015). The story represented the specific university *third space* context, within which a project developed, and included the following broad topics:

- how staff (professional and academic) described their experiences working together: what occurred during the project;
- how the relationships changed and what else changed when staff worked together (Akkerman & Bruining, 2016; Akkerman & Bakker, 2011a);
- what skills and competence were required from staff working across boundaries (Akkerman & Bruining, 2016; Aldrich & Herker, 1977; Williams, 2011, 2013).

The main advantage of using a narrative format to present the university *third space* accounts was based on the narrative's facility at the "conveyance of deep meaning, reader

accessibility, and opportunity for readers to recognize and consider researcher subjectivity" (Mabry, 2008, p. 219). Writing a brief and descriptive case profile assisted both the researcher and the reader to consolidate the fragmented data from each individual transcript (Bazeley & Jackson, 2013), and to engage with the audience (Riessman, 1993; Szekeres, 2005). Another characteristic of the narrative method is that the created narratives contributed to bridging the divide between research and practice (Czarniawska-Joerges, 1998; Olson, 2015; Polkinghorne, 1989; 2010; Szekeres, 2005), which made this approach ideal for applied higher education research. Case summaries, full versions of which are located in Appendix 6, provided a deeper understanding of cases drawn from "a wealth of contextual richness and person-specific information without which that case cannot be understood" (Ayres et al., 2003, p. 873).

4.5.5 Joining it all together: The **"Adaptive Qualitative Research Synthesis"** *method*

Similarly to many research fields, there has been an increasing imperative in higher education research to use clearly defined, replicable approaches to synthesising and communicating research findings in order for researchers to provide recommendations for improving research, practice and policy decision making that are firmly grounded in evidence (Major & Savin-Baden, 2010a, 2010b; Suri & Clarke, 2009; Tight, 2012, 2018). One particular approach to qualitative research synthesis (Major & Savin-Baden, 2010a, 2010b) is meta-ethnography, pioneered in education research by Noblit and Hare (1988). A new process of synthesising existing interpretive research was designed in order to preserve simultaneously the idiosyncratic and universal features of integrated qualitative studies. It involved "the translation of studies into one another" (Noblit & Hare, 1988, p. 10). Reinterpretation (as opposed to aggregation and quantifiable assessment of non-homogeneous ethnographic material) was a cornerstone of the new method. The method continues to be used within a range of methodologies in addition to ethnography across

diverse fields of research (Major & Savin-Baden, 2010a, 2010b). It has been used extensively in education research in the past two decades (e.g., Doyle, 2003; Rice, 2002; Savin-Baden & Major, 2007, 2010; Savin-Baden, McFarland, & Savin-Baden, 2008). The advancements of the method within the higher education research tradition informed and guided a new modification, which was applied to the integration of the research findings in this research.

A new approach to qualitative synthesis was necessary for this doctoral research for two reasons. Firstly, unlike secondary qualitative data, which is the focus of meta-ethnographic synthesis, it was the primary data that needed to be interpreted and synthesised. The interpretive translation of findings had to incorporate a three-tier approach: within-case; across five cases; and the connection of findings between two phases.

Secondly, a customised approach was intended to provide a clearly defined, replicable method to qualitative research synthesis (Major & Savin-Baden, 2010a, 2010b; Suri & Clarke, 2009; Tight, 2012, 2018). An adaptation of the original meta-ethnography had to incorporate the interpretation of findings from case study projects located across cultures. Noblit and Hare (1988), in discussing the scope of the meta-ethnography application, commented on the deliberate exclusion of studies across cultures from the focus of meta-ethnography, suggesting that interpreting findings from various cultural contexts would need a different level of translational work. An adapted approach was required, therefore, for the purpose of this intercultural case study. Since the number of cases across the two sites of dissimilar cultures was small, the task of the interpretive translation of findings was feasible within the timeframe of a doctoral research study. In addition, the purpose was not to produce a cross-cultural comparison of aggregated themes, but rather an in-depth contextual exploration of the emergent themes within each of the two cultural contexts to reveal what could be learnt from the in-depth thematic translation.

Based on the requirements of this research, the existing methods used in synthesising the primary findings from multiple case studies (e.g., Patton, 2015; Ragin, 1987; Yin, 2016), which are based primarily on the translation of findings across cases into quantifiable variables, were not deemed appropriate for this research. The purpose of the synthesis was the identification and interpretation of the emerging themes and concepts, not through counting the cases in which the theme was expressed, but instead by seeking and commenting on divergence, complexity and depth. This was achieved through the interpretation process that included assessing themes for saturation and strength of contribution to the argument.

Designed for the purpose of this doctoral research, the "*Adaptive Qualitative Research Synthesis*" (AQRS) was used to synthesise interpretive research findings from *primary* multiple case two-phase intercultural research findings. The letter *A* in AQRS denotes *adaptive*, as the new method needed to be flexible and modifiable. The modification of Noblit and Hare's (1988) original approach was designed with the consideration in mind of two previously designed adaptations within higher education research. Those were the adaptations by Doyle (2003) and by Savin-Baden and Major (2010b, 2007). The summary of the compared features across all four developments of the method (from original, through two higher education research adaptations to the novel AQRS developed for this research) is presented in Table 4.4.

Table 4.4

Qualitative Research Synthesis: Comparison across the Four Variations (Adapted from Doyle [2003])

	Meta-ethnography (Noblit & Hare, 1988; Urrieta & Noblit, 2018)	Augmented/enhanced meta-ethnography (Doyle, 2003)	Qualitative research synthesis (Major & Savin-Baden, 2010a, 2010b)	*"Adaptive qualitative research synthesis"* (AQRS)
Purpose	Comparison and interpretation of findings, moving towards reconceptualisation in order to contribute to human discourse	Comparison and interpretation of findings, moving towards reconcepualisation in order to contribute to human discourse and empowerment by the facilitation of praxis	Development of conceptual translation for data reinterpretation, a new theory development and professional practice's enrichment	Development of conceptual translation, data reinterpretation and reconceptualisation to facilitate evidence-based decision making through the provision of recommendations for research, policy and practice
Data sources	Findings and interpretations drawn from existing qualitative studies (secondary data)	Findings and interpretations drawn from existing qualitative studies (secondary data)	Findings and interpretations drawn from existing qualitative studies (secondary data)	Findings from a multiple case and multiple phase study (primary data)
Data collection	Purposive selection of case studies	Purposive selection of case studies	Purposive selection of case studies	Exhaustive cases within a multiple case study (with cases originally selected for the purpose of gathering date for addressing a research problem)

	Meta-ethnography (Noblit & Hare, 1988; Urrieta & Noblit, 2018)	Augmented/enhanced meta-ethnography (Doyle, 2003)	Qualitative research synthesis (Major & Savin-Baden, 2010a, 2010b)	*"Adaptive qualitative research synthesis"* (AQRS)
Process towards synthesis	Constructing non-aggregated interpretations involving three key types of case-to-case translation: reciprocal (based on thematic/conceptual commonalities or similarities); refutational (derived from diverging or dissimilar concepts or themes); and line of argument (intersecting concepts/themes potentially directing to a whole new explanation) translations	Analysing each selected case, writing its rich translation, followed by the synthesis, which incorporates the juxtaposing key descriptors and individual translations and creating new descriptors and interpretations	Reinterpreting and translating the concepts in one study into another, including: 1. analysing (developing *first order* themes); 2. synthesising (developing *second order* themes); 3. interpreting (developing *third order* themes)	Constructing interpretations of findings from within- and cross-cases and across research phases within one qualitative research project, including: 1. analysing (developing *first order* themes from Phase One research findings, followed by *first order* themes from Phase Two (within each case findings); 2. synthesising (developing *second order* themes originating from within each case, cross-cases and cross-phases analysis); 3. interpreting (developing *third order* themes originating from *second order* themes, developing recommendations and conceptual framework as practical outcomes of working with data)
Conducted by	A panel of reviewers drawn from researchers of the original studies or an independent panel	A panel of reviewers (meta-ethnographers) drawn from researchers of original studies or an independent panel	A panel of reviewers (*synthesists*) drawn from researchers of original studies or an independent panel	Researcher(s) who conducted case studies

	Meta-ethnography (Noblit & Hare, 1988; Urrieta & Noblit, 2018)	Augmented/enhanced meta-ethnography (Doyle, 2003)	Qualitative research synthesis (Major & Savin-Baden, 2010a, 2010b)	*"Adaptive qualitative research synthesis"* (AQRS)
Product	Synthesis of ethnographic (interpretative) case studies, developing inductive and interpretive forms of knowledge synthesis	Interpretations across case studies	Combination of interpretations across studies; a new, reconceptualised web of knowledge interpreting or advancing a theory	Consolidation of knowledge within one research study providing evidence-based recommendations and analytical connections with further studies

As can be seen from comparing these four adaptations, the AQRS approach reformulated the original, broadly stated purpose of human discourse contribution (Doyle, 2003) into a process pragmatically aligned with the nexus of higher education research and practice.

Applying the AQRS, the challenge shared by all qualitative research syntheses, in that the final representation is three steps removed from the voices and experiences of the research participants (Major & Savin-Baden, 2010b; Sandelowski & Barroso, 2007), was addressed. Selectivity bias that is common to other meta-ethnographic approaches was eliminated by including all the investigated cases as primary sources in the evidential synthesis. An enhanced validation approach (including the narrative case summaries validated by the research participants) to data analysis was deemed to achieve higher plausibility and trustworthiness of the reported new knowledge.

The innovation of the AQRS lay in its reconceptualisation of the existing qualitative syntheses and their strategic adaptation for the purposes of primary data interpretation collected through multiple stages of the research across varied cultural contexts. It is argued that, through applying the AQRS approach to the higher education research field, this research can be viewed “as a purposeful enterprise that can help [to] inform current professional practice” (Major & Savin-Baden, 2010b, p. 9).

4.6 The researcher’s axiological position and ethical considerations

Prior to the recruitment of participants, this research was approved by TU’s Executive Review Committee for Human Research Ethics (Approval Number H7071 with the valid protocol period until 31 August 2019). All the data collection was completed within the approved time period. According to William and May (1996), “Methodological decisions are implicitly ontological and epistemological, whereas moral considerations underwrite everything we do as researchers, philosophers or citizens” (p. 11). Those moral

considerations are closely aligned with the researcher's values, which guided the whole research process. Those values are common within contemporary research practice, and included ethical decision making, honesty and integrity towards the research participants (Saldaña, 2011). The ethical principles (discussed further in the next two subsections) implied that the researcher's reflexivity included considerations about what it meant to be an insider researcher conducting research within the university that was simultaneously the site of research and the site of work.

4.6.1 Reflexivity and positionality

Considering that "obtaining data of any sort is not a neutral activity" (Bazeley, 2013, p. 51), the research affected invariably the participants, the researcher and the research site. The practice of active interviewing is a space where participants, together with the researcher, create multiple meaningful realities (Holstein & Gubrium, 2003; Schostak, 2005).

In these circumstances, reflexivity comes to the fore as simultaneously a research practice and a process of questioning decisions and their impacts on those involved in the research (Cousin, 2016; Fook & Gardner, 2007; Schön, 1987). Reflexivity, customarily carried out by the researcher, is more than just "the provision of detailed information about the researcher and the research process" (Hammersley, 2013, p. 8). It also "includes a concern for positionality" (Cousin, 2016, p. 4), and thinking critically about oneself as a researcher (Lincoln et al., 2011), about the research participants and about the topic of the research (Jones et al., 2006).

4.6.2 An insider researcher position

Questioning a researcher's positionality is not a quest for objectivity; and neither is it an act of abject subjectivism (Cousin, 2016). It is reflecting on the complexity of personal, social, cultural and professional experiences that interfere with how a researcher engages with participants and interprets the findings (Bazeley, 2013; Hammersley, 2013).

Being an insider researcher presupposes both advantages and pitfalls (Birds, 2015; Brannick & Coghlan, 2007; Coghlan & Brannick, 2014; Labaree, 2002; Mercer, 2007). A somewhat freer access (perceived or real) to research sites and participants, a potentially stronger rapport with participants or an opportunity to build rapport prior to the research, and a shared organisational reference framework presented logistical and pragmatic advantages through minimising the imposition on everybody involved in the research. There was also an acknowledgement of the empirical evidence that data collected by a researcher from within the organisation was often ampler and more nuanced compared with the data collected by the outsider researchers (Birds, 2015). Alongside the advantages, the insider researcher needed to suspend preconceptions based on professional knowledge and affiliations, and deliberately to avoid sharing any such knowledge with the participants.

Reciprocity related to *insiderness* (Labaree, 2002; Mercer, 2007) and real or perceived *asymmetries of power* (Bazeley, 2013; Jacobsson & Åkerström, 2012) may inadvertently influence the whole research process, and data interpretation in particular (Hockey, 1993). The researcher was mindful that some research participants were likely to be more willing to share their insights with the researcher based on the researcher's position, and that some may have been deterred from participating for the same reason.

Deliberate actions were taken in order to minimise biases related to insider researcher status. The real or perceived imbalance of power relations (Bazeley, 2013; Briggs, 2003; Perriton, 2000a, 2000b) was addressed by cross-checking the findings gathered from all participants. The recruitment of participants for Phase Two was conducted primarily through a third party (the managers interviewed for Phase One). In addition, particular care was taken to ensure that the interviewed professional staff had never been in supervisory or reporting relationships with the researcher. Prior to the start of each interview, the voluntary basis of participation was reconfirmed with participants. A full disclosure of the aims of the project as

stated in the information sheet and on the informed consent forms provided an additional safeguard to minimise any perception of coercion on the part of the researcher.

The cultural dimension (inside/outside culture) presented another complexity, making the researcher appear both inside and outside the research participants' cultures in Australia as well as in Singapore, which is usually the case with intercultural research (McNess, Arthur, & Crossley, 2015; Ryen, 2003; Ryen & Silverman, 2000). Culture was particularly significant to the researcher because of her own sense of location in the world, and her self-perception of hybridity of culture and identity (Bhabha, 1994; Soja, 1996, 2009). The researcher was an insider from the organisational position, and was neither an insider nor an outsider, but rather a *third space* inhabitant, from the cultural position. It was the researcher's lived experiences of the East (Russia, China and Vietnam) and of the West (Australia and New Zealand), simultaneous assimilation and preservation of the core identity (*strategic globalisation*), spanning the boundaries of work across education sectors (higher education, vocational education and international education), geography and culture that navigated and shaped this research. Ultimately, those diverse experiences and continuous reflection on those experiences provided the interpretative lens through which to view and make sense of the university *third space,* collaborative cross-boundary work and professional staff motivations for collaboration. Armed with that interpretative lens, reflection on the ways that the research was designed and planned, and on what could have improved the outcomes, forms the discussion of the following section.

4.7 Conclusion about the research design and its limitations

This research, which focused on university professional staff working collaboratively with academic colleagues across diverse cultural and organisational spaces within a wider context of globalisation, was designed and implemented as a two-phase multiple case study. In order to summarise the research design elements, an integrated Table 4.5 was designed to

align the research questions and the theoretical foundation elements with the corresponding phases of research and the data analysis and validation methods. The purpose of developing this table was to ensure that no logical steps were missed in the design of the research project. It was also an acknowledgement that "only by putting data, theory, and methodology together will findings emerge in an analytic process" (Brinkmann, 2013, p. 93). Although the ethical dimension is not featured in the consolidated table, ethical concerns were "involved in every aspect of design" (Maxwell, 2013, p. 216), including the approaches to data analysis and the overall decision making.

Table 4.5

Alignment of Research Questions and the Theoretical Foundation with the Corresponding Research Phases, Data Collection, Data Analysis and Relevant Validation Techniques (Adapted from Maxwell [2013] and Bazeley [2013])

Research questions	Theoretical foundation	Research Phase and Data Collection Methods	Data Analysis	Data Validation Techniques
Question One: How is the concept of the university *third space* understood within a broader local/global/glocal context?	Dimensions of Pragmatic Constructivism: *Facts, Possibilities, Values, Communication* and *Actors*	Phase One: Semi-structured interviews (N=17). Utilisation-focused selection method. TU middle and senior managers. Minimum basic demographic data collected prior to interviewing.	" Adapted Qualitative Research Synthesis" (*first order* themes - analysis; *second order* themes - synthesis; *third order* themes - interpretation through developing of recommendations and the emerging conceptual framework)	Member checking of all 17 interview transcripts. Thematic analysis: content coding and preliminary analysis of findings to scope and plan Phase Two design and interview guide. Codebook and validation of codes (external reliability and self-validation techniques).
Question Two: How do university professional staff in a single university across Australia and Singapore see themselves *vis-à-vis third space* collaborative work?		Phase Two: Multiple case study (N=5: three from TU Australia and two from TU Singapore). Purposefully selected cases.		Member checking of all 17 interview transcripts. Codebook and validation of codes (external reliability and self-validation techniques) Thematic analysis: content coding and *first order* thematic development: cross-case and cross-phase analysis
Question Three: What can be learnt from investigating the intercultural, cross-campus and individual variances in professional staff members working together across boundaries?		Semi-structured interviews (N=17 across all five cases) Minimum basic demographic data collected prior to interviewing.		Narrative case summaries involving research participants in data verification and analysis. *Second order* themes (synthesis) and *third order* themes (interpretation, developing TU recommendations and the "*Conceptual framework of the university* third space *professional staff cross-boundary collaboration*".

It is important to acknowledge that the implemented research design had limitations owing to several contingent factors on which it was based (Brinkmann, 2013). There were limitations from selecting only one university as a site for research. It would have been desirable to include other regional universities, and regional universities operating international campuses in Asia (for instance, RMIT, Monash University, Swinburne University or Curtin University [Davis, 2017]) in order to access a wider range of insights from professional staff who had similar or different experiences to or from TU participants. From the pragmatic perspective, however, the researcher may not have been able to access other universities' information about the collaborative projects, as such information would be classified as "commercial in confidence". It is partly for that reason that similar research conducted about university professional and academic staff professional engagement has been largely conducted by researchers in their own universities (Berman & Pitman, 2010; Birds, 2011, 2015; Botterill, 2013, 2018; Graham, 2013b; Lewis, 2012, 2014; McMaster, 2005; Szekeres, 2004, 2005, 2006, 2011). Opportunities for extending this study to other university contexts may arise from the limitation of this study (in future iterations of this research).

Another limitation was the availability of diverse cross-boundary projects for exploration. While those projects were available to select from the Australian campus, the Singapore campus at the time of the research (and also being a significantly smaller site) did not have many such projects. This limited the researcher in what projects could be sourced and included in the investigation. Two Singapore projects had a limited number of professional staff who collaborated with the academics. This limitation resulted in fewer cases being drawn from Singapore research site and with fewer professional staff participating in the research. This resulted in somewhat weaker data validity and a smaller number of theoretical insights drawn from the data. Having a small pool of such intercultural

cross-boundary collaborative projects in Singapore supported by the responses from Singapore participants demonstrated the growing significance of such projects and their impact on staff professional lives and on the whole university, thus increasing the overall significance of this research. This design limitation, therefore, was interpreted as a potential avenue for future research based on the demonstrated significance of the research project (Price & Murnan, 2004).

The constraints of a doctoral research study bounded both temporally and conceptually presented another limitation. It was impossible to include incomplete projects or those that disintegrated for the lack of planning or staff motivations. The inclusion of lapsed collaborative projects would have been useful to analyse the factors that contributed to project failures, thereby potentially providing rich material for the exploration of professional staff collaboration. In addition to the time limitation, the collective memory of an organisation tends to be selective, favouring success stories over failures. This project selection bias presents another opportunity for future research that could be extended to include a combination of successful and failed projects, which presents a wider scope for analytical insights potentially having a stronger basis for informing professional practice.

After presenting the integral elements of the study's research design and methodology, the discussion switches to a detailed presentation of data collected from Phase One and Phase Two of the research. Chapter Five begins with an overview of how *first, second* and *third order* themes were developed, providing the preliminary *first order* themes developed from Phase One of the research. It then moves to a detailed discussion of each of the five cases explored in Phase Two (the multiple case study). Chapter Six is a presentation of a cross-case and cross-case synthesis (*second order* themes' development). A final data chapter – Chapter Seven – is a combined data interpretation (*third order* themes) presented in the form of three consolidated themes that were used to formulate the recommendations for

TU professional staff and the university leaders. The elements of these interpretations assisted in building the "*Conceptual framework of the university* third space *professional staff cross-boundary collaboration*", which is also presented in Chapter Seven.

Chapter Five – Research findings: Analysis

"I felt that I was really contributing, in a significant way." (*Vera, professional staff, Phase Two,* TUA, Case #2)

"I think, between our academic staff and our professional technical staff, people are willing to listen to everyone's point of view. It doesn't matter what your status or your title is or your position; we're seen as colleagues at the table." (*Samantha, professional staff, Phase Two, TUS, Case #2*)

5.1 Introduction: An overview of developing *first, second* and *third order* themes

Chapters Five, Six and Seven report on the data collected through both Phase One and Phase Two of the research. Seventeen interviews were conducted with professional and academic staff of Tropical University (TU) during Phase One, and the same number of interviews with the project participants was accomplished across five case studies during Phase Two. After multiple readings of each of the interview transcripts from Phase One and from the Phase Two case studies, and after transcripts were coded using both predetermined and inductive thematic development (patterns in data), a three-level "*Adaptive Qualitative Research Synthesis*" (AQRS) method was used to:

- analyse the developed themes drawn from data patterns (*first order* themes);
- synthesise themes (*second order* themes); and
- interpret and translate themes to develop overarching *third order* themes in the form of recommendations and a "*Conceptual framework of the university* third space *professional staff cross-boundary collaboration*".

Chapter Five focuses on the first step (analysis) of AQRS, whereas the following two chapters (Six and Seven) are dedicated to the second (synthesis) and the third (interpretation)

steps of thematic development. It is important to explain how each phase of the research contributed to answering the study's research questions. Phase One, the preliminary phase, had participants providing insights in relation to:

Research Question 1: How is the concept of the university third space *understood within a broader local/global/glocal context?*

The analysis of the Phase One interviews led to the development of a series of themes related to how university staff perceived their work and cross-boundary collaboration within a perpetually changing higher education environment. The overview of these findings grouped around the key pragmatic constructivist dimensions is presented in Section 5.2 of this chapter.

Following the completion of Phase One interviewing, Phase Two of the research consisted of five case studies, each examining a particular *third space* project conducted within TU. In Phase Two, project participants (professional and academic staff) contributed to answering these two research questions:

Research Question 2: How do university professional staff members in a single university across Australia and Singapore see themselves vis-à-vis third space *collaborative work?*

Research Question 3: What can be learnt from investigating the intercultural, cross-campus and individual variances in professional staff members working together across boundaries?

The summary of the profiles of the five cases is presented in Chapter 4 Section 4.4.4, with the visual representation of all five explored cases and a further deliberation of the projects' alignment with the *third space* typology (Whitchurch, 2012, 2018) presented in Section 5.3 of this chapter. Section 5.4 opens with an explanation of how the detailed integrated analysis – *first order* themes' development – was conducted, followed by the

analysis of the five cases examined in conjunction with the Phase One findings (Sections 5.4.1-5.4.5). Similarly to the organisation of the Phase Two findings, the discussions of the Phase Two findings are grouped around the key pragmatic constructivist dimensions. The chapter concludes (Section 5.5) with a summary of all *first order* themes developed at the data analysis stage from the Phase One and Phase Two findings. The other two data analysis chapters present a detailed synthesis – *second order* themes' development (Chapter Six), followed by interpretations that were translated into TU recommendations that contributed to the development of the "*Conceptual framework of the university* third space *professional staff cross-boundary collaboration*" (Chapter Seven).

5.2 Phase One: An overview of the findings across the pragmatic constructivist dimensions

Phase One was a preliminary phase: while contributing to answering the first research question, its primary goal was to shape and scope the second phase (the multiple-case study) of the research. It was therefore deemed unnecessary to present a detailed discussion of all the Phase One findings, but instead the focus was on providing a consolidated version of these findings arranged according to the key dimensions of the pragmatic constructivist paradigm – i.e., *facts, possibilities (*and *challenges), values, communication* and *actors* (for an explanation of these dimensions, see Chapter Four, Section 4.1.1), as they are displayed in Figure 5.1.

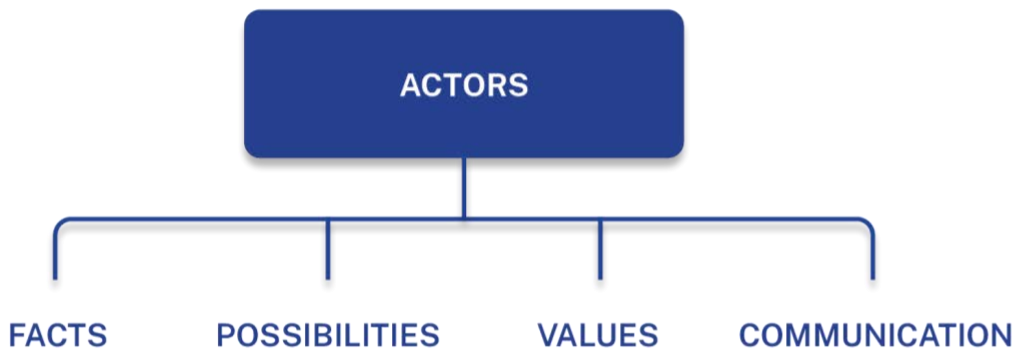

Figure 5.1 The adaptation of the core dimensions of pragmatic constructivism (Nørreklit, 2011; Nørreklit, Nørreklit, & Mitchell, 2010; Nørreklit, Raffnsøe-Møller, & Mitchell, 2016)

Pragmatic constructivist dimensions provided a scaffolding for presenting the findings, and assisted in highlighting relationships among the insights of the participants in each case while constructing gradually the overarching story of the TU *third space* professional staff collaboration.

Facts.

There were a number of global and local factors discussed by the participants in relation to how these factors impacted on their work. Among global factors, globalisation and global competition were seen to be affecting managers in Singapore and in Australia (somewhat more strongly in Singapore than in Australia). Changes in staff, a decline in student numbers and the corporatisation of TU were the key local conditions that impacted negatively on managers' and staff members' collaboration. Despite the challenges and pressures of globalisation, staff were often able to provide creative local solutions to global challenges (with examples of these solutions provided by staff in Singapore). Overall, managers agreed that there should be better ways of using the talent and skills of TU professional staff and of maximising the benefits of collaboration.

Possibilities (and challenges).

There were persisting biases that were simultaneously critiqued and enacted in the everyday working life of staff. On the one hand, the practice of an *othering* dualism (professional vs. academic staff) occurred across organisational boundaries, despite being generally criticised and condemned by both groups of staff. Dualisms were at times justified by the differential professional goals that academics and professional staff pursued. It was generally perceived as a role of TU leaders to set common goals for all professional groups. On the other hand, there was evidence of spaces in TU that were associated with sites of coming together and crossing various boundaries to innovate, collaborate and work on solutions to common problems (e.g., library practices and curriculum development).

Values.

Diversity was discussed in its many forms and guises, and generally perceived as adding value and providing benefits to TU through challenging people's ways of thinking and working. Boundary crossing was seen at times as contentious if the focus of this mode of working were placed on boundaries (e.g., role boundaries and academic disciplines' boundaries), as opposed to being placed on the benefits achieved through this boundary crossing. For professional staff in particular, boundary crossing was seen as a way of working across multiple organisational domains that presented both opportunities and disadvantages. The opportunities were associated with new learning, new ways of thinking and building new professional connections across the university, whereas the disadvantages were claimed to be related to the lack of recognition by the managers and by the university as a whole of these cross-boundary practices, as being part of role descriptions. Despite the perceived lack of recognition, professional staff claimed to enjoy working outside, across and beyond various boundaries.

Communication.

The dimension of communication was discussed in the context of a willingness to cross boundaries for work and collaboration by two main groups of staff: academic and professional. Inter- and intra-institutional collaboration was described as the TU's reality, with increasing numbers of staff working together across campuses on various projects. Staff collaboration and professional staff engagement in university-wide projects, being seen as equally beneficial for staff and the wider university, were therefore deemed important and in need of further encouragement. TU transformation, which occurred in 2014, despite being claimed as having had a detrimental effect on staff relationships and collaboration, had nevertheless enabled managers to review and change certain organisational and professional group boundaries and an overall organisational culture. After the restructure, professional staff were seen working across professional domains, routinely crossing the boundaries of their roles, position descriptions and their designated scopes. Academic staff, on the other hand, were more rarely perceived (by professional staff) as crossing the boundaries of their respective disciplines, although they claimed themselves to be actively collaborating across disciplines within TU and to be often crossing sectoral boundaries (i.e., between the university and industry) for the purpose of research collaboration.

Actors.

Participants contemplated the connection between people and spaces in TU. Many claimed that it was the perpetually changing and blending professional identities that defined spaces, and not the other way around. Those changing professional identities were argued as being at the forefront of the university *third space* discussions. On the one hand, many professional staff identified themselves as working at an intersection of academic and professional domains. They perceived themselves as having *blended* or *hybrid* identities. They often *faced multiple directions* and *married their own professional spaces with those of*

academics. On the other hand, there was an expressed concern that TU did not provide professional staff with *creative space-time* to enable people to join forces, intermingle and innovate. At times, there was no recognition given for professional staff who dared to cross boundaries and to venture into the unchartered *third spaces*. University *third space* was described metaphorically as *a wasteland* or an entrapment, into which professional staff willingly entered and that they subsequently felt powerless to leave and return to their original work. Staff generally thought that it would be a role of the TU leaders to articulate these critical spaces of engagement and cross-boundary work, thereby making them more attractive for all staff.

Concluding this brief discussion of the Phase One findings, it can be emphasised that the general perception of TU's managers – academic and professional alike – was that, despite many global and local challenges, staff at TU often found creative solutions and reached across multiple boundaries to collaborate. Cross-boundary work in general and collaboration across boundaries were perceived as valuable activities that in many instances occurred without recognition or acknowledgement from TU. Professional staff at TU participated in collaboration, although the consensus was that it was difficult to locate people with the right skills and mindsets to invite them to join collaborative activities. The next section provides an overview of the five TU projects selected for exploration in Phase Two of the research.

5.3 Phase Two: An overview of the five explored projects across the *third space* typology

Out of five TU projects selected for Phase Two examination, three took place on Australian campuses, and two at the Singapore site and involved cross-border, cross-national collaboration between Singaporean and Australian staff (see Figure 5.2).

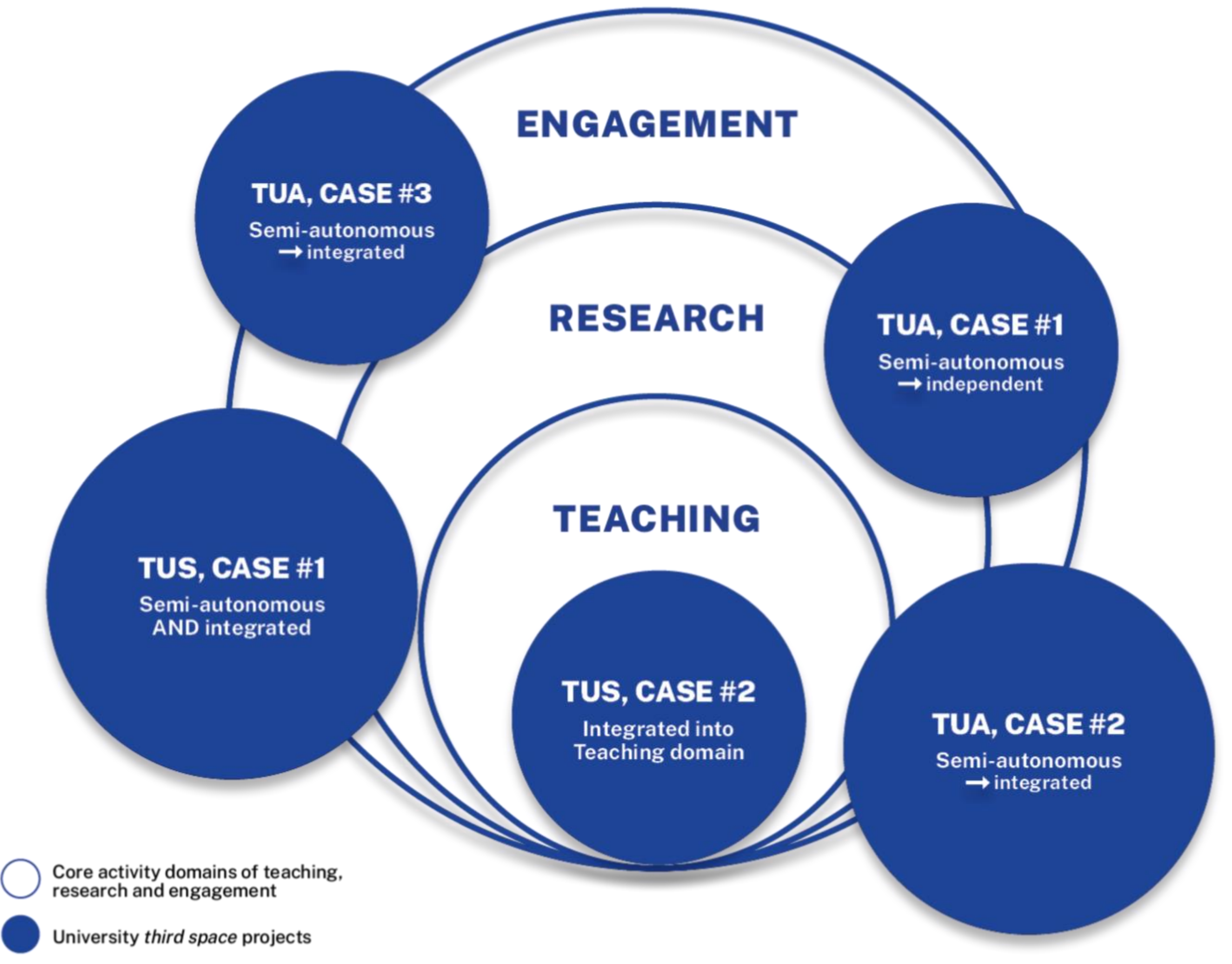

Figure 5.2 The alignment of the five TU third space *projects and the core activity domains of teaching and learning, research and engagement (developed from Whitchurch's [2008] university* third space *typology)*

According to the university *third space* typology (Whitchurch, 2012), only one investigated project, which took place in TU Singapore (TUS, Case #2), was classified as *integrated*, as it was embedded in the organisational structure and recognised as part of the university core domains of teaching and learning. All three Australian projects (TUA, Cases #1, 2 and 3) represented a transition from one university *third space* type (*semi-autonomous*) to another: either to *integrated* (TUA, Cases #2 and 3), or to *independent* (TUA, Case #1), space. When these three projects commenced, they were either:

- externally funded and structurally separate from TU organisational units (TUA, Case #2);
- derived from a business incubator approach to development (TUA, Case #3); or
- initiated by TU staff and progressed fairly independently from those actors' main line of work (TUA, CASE #1).

The final project, which took precedence in Singapore (TUS, Case #1), represented a mixed type of a *semi-autonomous* and an *integrated* project. It encompassed the set-up of a business entity independent from TU (The Research Institute in Singapore), and yet it was an embodiment of the TU strategic mission of the enhancement of the TU research culture at the Singapore campus, which was part of the core activity of research at TU. All five cases therefore presented a wide range of scenarios, through which university *third space* professional staff collaboration was examined. The next section presents the detailed analyses of each of the five cases' findings in conjunction with the Phase One findings outlined in Section 5.3.

5.4 Analysis of cross-case and cross-phase findings: Towards developing *first order* themes

Each part of this section commences with a synopsis of a Narrative Case Summary of one of the five explored projects, followed by the extensive discussion of the respective

findings. These summaries represent a concise and compelling story of the project from the point of view of the participants. All participants' voices were combined to tell collectively a story of the project. Applying a narrative format enabled the provision of an equitable share of all participants' opinions and insights, which also facilitated the validation of the summaries by the project participants. Full versions of each narrative case summary are included in Appendix 6.

The discussions of the findings are structured around the core dimensions of the pragmatic constructivist paradigm (see Figure 5.2 in the previous section), with the dimension of *facts* represented by the TU *third space* Narrative Case Summaries, which synthesised the voices of the project participants. *Possibilities* and *challenges* were manifested and illuminated through the participants' reflections on the project itself and on their participation in the project, and through the relationship between the project and the larger TU environment, whereas the dimension of *communication* was articulated through the analysis of learning achieved through each of the four *Boundary Crossing Learning Mechanisms* (BCLM) – *identification, coordination, reflection* and *transformation* – as the learning emerged at the intrapersonal, interpersonal and institutional levels (for the details of each of the learning mechanisms and their manifestation at various levels of boundary crossing, see Chapter Three, Tables 3.1 and 3.2). *Values* presented primarily the foregrounding attitudes that participants expressed that they had towards professional relationships and their dynamics as they developed on the project (e.g., the value of diversity). Finally, the dimension of a*ctors* was described as seen through the lens of the Self-Determination Theory's needs for *autonomy, competence* and *relatedness*, cross-boundary capabilities and the need for professional staff recognition of their collaborative and cross-boundary work.

Each case discussion (Sub-sections 5.4.1-5.4.5) concludes with a summary of findings for each respective case, which were consolidated exploring commonalities, divergences and uniqueness among participants' insights within that case compared with the respective findings from the exploration of the Phase One findings. These summaries were then used as a foundation for developing the consolidated *first order* themes, which are displayed and discussed in the concluding section of this chapter (Section 5.5).

5.4.1 Tropical University (Australia) Case One: From the DNA pump to Grover Scientific: A case study of "sprinting the marathon" all the way from an idea to the commercial entity

Facts: ***Narrative Case Summary.***

This was the project of entrepreneurial collaboration among three key TU actors: a scientist (the Researcher[4]); a technical solutions manager (the Innovator); and a Research Business Manager (the Business Manager). Their collaboration started with the Researcher's need to redesign an outdated piece of research equipment (a DNA pump for collecting water samples in the field), and later provided the new solution for the Researcher and the wider research scientific community. The new designed and tested solution – a more rapid, lighter in weight and environmentally friendly device – was called "Grover". The Business Manager provided research commercialisation and intellectual property expertise. While collaborating on the project, all three of them completed a highly competitive national research innovation program, which was simultaneously the most gruelling and rewarding experience of their work together. After two years of completing the learning marathon, two of them managed to transform a small-scale, semi-autonomous research innovation project into a commercial research entity independent from TU.

[4] These activity-based identifiers (the Researcher, the Innovator, etc.) were created by the researcher as part of the narrative process for all five projects. In some cases, they differed from the roles that were self-selected by the participants in the pre-interview survey (see Chapter 4, Table 4.3). These identifiers are used interchangeably with the name pseudonyms throughout the data discussions (Chapters Five, Six and Seven).

All three project participants came together serendipitously, either through an internal recommendation or based on some prior knowledge about one another. All three of them had a deep appreciation of diversity – of people, perspectives and complementarity of skills – that assisted in developing their professional relationships. On the program, they acquired business acumen and skills that they had previously lacked. Translational skill was one such cross-boundary competence that enabled each of them to learn about another person's field of expertise, and to communicate across boundaries with confidence. Their learning transformed their professional identities, providing them with much broader views of the definition of success in research and business, and of the transformational power of technology through people's collaboration and working across organisational boundaries.

Having shared values and an appreciation of another's unique skills assisted the Researcher and the Innovator in developing their professional relationship as the project progressed. The overall success of the project was grounded in collaborating partners cherishing their relationships and combining their three individual passions (for conservation, innovation and research commercialisation) to create a unique space for experimentation and innovation. They built the strength of their communication on the principles of open discussion, the free exchange of ideas and leading the space from the perspective of expertise rather than power.

Key learnings from the project included: the importance of connecting with the right people based on their expertise and collaborative cross-boundary mindset; the necessity for TU to acknowledge collaboration and to provide staff with space and time to develop professional connections and networks; and finally, the requirement of using an individualised approach to professional staff recognition and acknowledgement.

Possibilities and challenges.

Within this small, *semi-autonomous* later transitioned into an *independent* project case study, three participants – Jane[5] (an academic), Sheldon and Foster (both professional staff) – discussed the topics related to the project and how their professional relations developed through collaboration. The project afforded two of the participants (Jane and Foster) an opportunity to set up their own company independent from TU, which involved a complex arrangement around the licencing of the intellectual property rights for their invention to TU. The new company pathway, determined by Jane and Sheldon to be the best for their business objective, also led to the weakening of the connection between this *third space* and TU:

> It's an external thing to TU, so we had an interest in advising and assisting her [Jane] with technology [to enable it to] reach full maturation and market potential…but we really have to be a little…reserved, because it's really her business. It's outside of TU. (***Foster***)

TU provided generous support to the project team, enabling them to participate in the external research acceleration program and to develop the project in line with their vision. Alongside the opportunities, the project presented numerous challenges:

> It's been a crazy wild ride; it's been way harder than I thought. I just didn't realise it was so difficult to innovate, and there were so many hurdles to jump. (***Jane***)

The three main challenges identified by the participants were:

- the lack of dedicated time for innovation;
- the innovative and collaborative nature of the project that was incongruent with the overall TU environment; and
- the serendipitous nature of locating the *right* people for collaborative projects.

[5] Participants' names used in this chapter *passim* are pseudonyms.

Sheldon confirmed that, unlike their team, other participants in the national research acceleration program had been released from their main jobs to immerse themselves fully in the program ("It's been a bit hard for us, because we were juggling still full-time work and doing this on the side"). In order to participate in the program, Jane "was trying to juggle a whole new way of thinking on top of my job and family", working "really late nights", and Foster felt that the program was "on top" of his day-to-day job. In trying to make sense of the challenge, Foster took TU's perspective, explaining that it would have been difficult to arrange for other people to substitute for any of the participants while they were attending the program ("We're a small university; we don't have the luxury of a massive office where others can just immediately pick up your work. We are limited in bandwidth, limited in support").

Elaborating the second challenge, Jane believed that innovation, creating new solutions and engaging in new learning were all happening "on the side" of the core university mission, and were therefore not being legitimised and recognised by TU:

> TU hasn't traditionally done a lot in that space, in a formal way. I think if we can make it easier, like if there are processes or guidelines, I mean….It's been a little bit messy.

The third challenge was related to a wider TU environment that created and perpetuated boundaries precluding connectivity between people. An accidental discovery of a person with the required skills happened on this project through "word of mouth" ("Someone just mentioned that there was this person around campus", as Jane recalled). Foster and Sheldon both confirmed that *word of mouth* appeared to be the only strategy used in TU for people to connect with those who they thought might help ("Jane turned up and said, *I was told that you might be able to help*?" in Foster's case; and, similarly for Sheldon, "They just turn[ed] up at my door and [asked]: *Can you help*?").

Jane expressed a concern about how professional and academic staff connected to create diversity of thinking and the exchange of ideas:

> How would you know that these people [professional staff] exist? How do they reach out? Often they might have amazing solutions or whatever. If they're not mingling and interacting with a wider community, how would you ever get that cross-pollination if you don't have these two groups interacting?

Foster added to Jane's comment his own opinion of the TU staff connectivity by saying: "It's a really interesting phenomenon that sometimes you have more time or better luck finding staff members from TU at a breakfast event or something outside of TU".

Ultimately, despite the organisational boundaries enabling only fortuitous discovery of other people with the required skills, partly based on previous professional engagement with other people (as confirmed by the Phase One participants), and also through gradually growing networks of like-minded and helpful colleagues (as mentioned by both Phase One and Phase Two interviewees), the project actors managed to find a way to connect with one another to start collaboration (as Foster elaborated, "I think it's really important the right people are in the right mix, and that's why I say it was serendipitous that they turned up at my door one afternoon, after that previous conversation").

Boundaries in a broader sense, as the deeply engrained tensions between TU professional groups and their detrimental effect on people's desire to work together, were discussed by both participants in this project (Sheldon) and the Phase One interviewees (Nimala, Moss and Arthur). Boundaries that were imposed on staff and on the whole university's professional groups by the TU previous restructure led to a discontinuity of established practices and a deconstruction of connections:

> Once upon a time, for us old people who's been here a long time, most people in TU knew most people because everyone inter-mixed. And it worked like a really well-

oiled machine: everyone knew everyone, had [a] half-idea what they were doing. They were all got broken into faculties which all were made competing with each other for funding, and that's when all that cross-communication all – it just failed. (***Sheldon***)

Sheldon used the metaphor of a *charge code* ("People don't want to talk to other people until they have a charge code"), whereas Moss (Phase One participant) related to the *call centre* mentality to describe the impact of the TU restructure on people's connectedness:

> We are now very much call centre-centric: you log a job to an anonymous system, and one of us will turn up to support you, and I think we've lost a big chunk of what we used to have. (***Moss, Phase One***)

By taking the project outside the TU boundaries, Jane and Sheldon were able to start realising their aspirations to extend their innovation to the wider research community. Despite what appeared to be the discontinuous nature of TU staff and professional group connections, the internal resources (staff and their expertise, knowledge and determination) enabled collaboration and assisted participants with acquiring and actualising valuable learning from the external research commercialisation program in which they took part.

Communication.

Jane attributed one of the reasons that the project succeeded to connectedness ("willing to reach out to people", "willingness to connect"), and to the strong partnership between herself and Sheldon ("We have really wonderful working relationships"). The evolution of their relationship through the project development went through several learning stages. Jane and Sheldon started by exploring how their respective expertise and knowledge could transform from an isolated incident of creating a solution to a problem, and then moved to a genuine collaboration. By including Foster and adding his expert knowledge of research commercialisation, marketing and business environment, and by participating in an external

training program together, all three of them developed friendship and a greater sense of collegiality and camaraderie. Finally, the connection between Jane and Sheldon, built around very different skills sets and personalities, and yet grounded in common values ("It's always for us been about the people and that relationship"; "We've just developed a really nice friendship and trust", as Jane suggested), led to their mutual decision to take the project into a commercially-bound space that was independent from TU. Cross-boundary learning, reflected through the communicative processes of *identification, coordination, reflection* and *transformation*, was occurring in this project at the institutional (between three project members and the external research commercialisation program as well as between the team and wider TU communities), interpersonal (within the project team) and intrapersonal (individual participant) levels.

BCLM: Identification.

The project initially developed within the TU organisational space. Two staff, Jane and Sheldon, integrated their skills and expertise and learned new practices working across the boundaries of their individual roles, identities and professional domains. The third participant, Foster, contributed his market knowledge and research business development expertise to the project space, but worked on the project only through its formation stage, when all three of them worked in unison sharing their unique practices and new learning. The project's subsequent spinning out of TU and becoming an independent company generated the need for the legitimisation of the new practices aligned with a commercial entity that was novel for TU. In a sense, the growing isolation of the project produced a gradual delineation between the Researcher (Jane) and the Innovator (Sheldon) on the one hand, and the Business Manager (Foster) on the other. Jane explained the deepening separation of practices in the following narrative:

> Foster did the first part of the program with us: he came down with us for the first month. It was really interesting for him too, in his role, to hear about how he as TU could support innovation. And then, as soon as the program became about making your company work, that's where he stepped away. He came in at a really pivotal time, so it's been really interesting: Sheldon and his unit, I'm in my unit and Foster and [his Director] and [Research Manager] are all in their unit, so it's been this cross-boundary. (***Jane***)

When the project reached its maturity and started moving along its own trajectory, Foster's engagement subsided. Thus, from the initial complementary practice identification and legitimisation of each participant's areas of expertise, as the project developed into an *independent* university *third space*, this led to the three – originally intersecting – practices moving apart at a later stage.

On the intrapersonal level, each participant's role in the project reflected the ways that they perceived their individual professional identities. Sheldon, while seeing his role as "basically build[ing] stuff that fills the need that the researchers have", reflected on his acceptance of the transactional nature of his services and of the way that they were consumed by the TU research community ("If I haven't heard from them, it generally means they [are] doing research and they are happy"). The project transformed his perception of working with academics into seeing the possibility of a lasting professional engagement and ultimately of co-developing a new enterprise.

Jane's identity as a researcher underwent similar transformations. Her original identification was based primarily on her discipline and on her role as a researcher:

> I think for a scientist, you like to do things that you're good at, like I've been studying my whole life and I'm getting skills in a particular area, so I had invested a lot of time and effort in knowing my field.

Jane transformed gradually from a scientist with a range of research commitments ("narrow definition of success") into a researcher who was able to set up her own company and to make innovation available to the world, ultimately having a much greater impact on the research community ("It's about bringing my vision forward, so if Grover does well, and conservation happens, that's what makes me feel good").

Foster used metaphors borrowed from the construction industry to describe each participant's identity and his own role on the project, of which he made sense and that he legitimised fully based on individual expertise. He defined himself not as a building but as "the framework", referring to his role as an enabler and translator, whereas Sheldon and Jane represented the building, with Sheldon being the "concrete" and Jane being the "water". Similarly, Jane referred to Foster as a "go-to" person ("for internal advice and navigation"). Foster confirmed that their relationship – based on contributions tacitly aligned with their individual expert knowledge – was successful ("Working relationship was great: the three of us, while we were with the program, very much split up into defined roles").

Foster's translational cross-boundary role was not that of a collaborating partner as such (despite being an integral part of the first stage of the project), but rather as one performing a bridging role, which was grounded in his ability to provide advice, guidance and advocacy. He identified his critical impact on this project and his role as of providing assistance with turning knowledge into a product that was valuable for a third party who represented a business research organisation. He perceived his cross-boundary role as occurring primarily at the institutional level.

BCLM: Coordination.

While learning various new skills on the program and applying these skills to the project, within their group of three (interpersonal level), coordination occurred primarily through conscientious and consistent efforts at translational work. As Jane mentioned, at the

start of the project she “didn’t speak that language” of business and research commercialisation. Sheldon, who had been focused primarily on an autotelic activity of innovation, was astounded by his own learning of commercial practices (“An enormous learning curve for both Jane and I, because we weren’t tied up in business, or law or marketing doing pitching to groups. I just make stuff!”).

Foster, in making sense of the initial lack of the shared language among the three of them, explained that Jane and Sheldon “didn’t really understand, so there was that translationary [*sic*] bit in there for me to assist them with”. Sheldon, while making his own contribution towards bridging the language gap, developed a deeper understanding of Jane’s research area and practices. The interpretative roles of each of the participants were thus enacted, leading to the increased permeability of boundaries between individual coordinated practices.

BCLM: Reflection.

Reflection through perspective-making and perspective-taking occurred primarily at the inter- and intrapersonal levels, when the participants contemplated how working together changed their perspectives on their own practices. Jane’s reflection on her learning was articulated through her changed perception of the meaning of her own research and its impact:

> The biggest thing for me is that it [program and project participation] completely and fundamentally changed the way that I thought about innovation and technology. Before I started “Grover”, I saw myself as a scientist, and my job was to do research and publish it in scientific journals. And I think now, as a result of the program and my working with Sheldon, I’ve realised that, [if] you can also use really good science and technology and then be able to commercialise it, then the impact is so much greater.

Jane reflected on the challenging path that she had to take that eventually led to her successful transformation:

> I suddenly had to jump way outside my comfort zone, and suddenly it was about [what] I needed to know about business, and about entrepreneurship, and innovation, and there were [other] things….I just didn't speak that language.

"Reaching across the boundaries", connecting with people, and deploying creative and original thinking were the key learnings that Jane applied to achieving results.

Like Jane, Foster's reflections were focused on his original knowledge deficit ("I learned that I don't know a lot, that I need to learn more"), and on his incremental increase in knowledge from multiple perspectives ("I've learned that other people don't always see things the same way"). Foster's appreciation of diversity and trust that developed among the three of them showed through his ability and willingness to take in others' perspectives, which led to genuine transformation through professional growth and his increase in confidence:

> I liked the different viewpoints; I liked these two people, and I trusted them pretty quickly; I liked the way they tested me in certain ways. There was always humour, but I felt there was growth, in that there was a growing experience.

Sheldon admitted that his part in the project did not present a challenge as the technical side was easy for him to implement. Program participation, however, presented an opportunity for the vastly different learning experiences ("I've learned [an] enormous amount from doing this program: stuff that I patently wouldn't have learnt otherwise, learnt [an] enormous amount about business, sponsorships, getting investors").

BCLM: Transformation.

The integration of all three participants' worldviews, perspectives and personal professional discoveries through the project and their participation in the training program

converged in delivering transformative outcomes on all three levels. At the intrapersonal level, Jane developed a distinctly new perspective around conceptualising research, innovation and technology. She spoke about the transformation of her own professional identity as a researcher: from a scientist with research commitments ("narrow definition of success") into a researcher who was able to set up a company and make innovation available to the world, ultimately having a much greater impact on the world of research and on her research community. Jane and Sheldon both developed a new cross-boundary skill of translation: interpreting the solution for multiple audiences, and integrating their respective expertise and practices with those of their collaborating partners. Foster's interpersonal level of transformational learning manifested in a teamwork approach from creating and innovating to connecting the prototype of an idea with the market needs.

Real transformation at the interpersonal level, which resulted in two of the participants establishing their own company, occurred through building their unique group identity as a convergence of two previously isolated ones: of an inventor and a researcher. Although their skills, worldviews and goals in life were dissimilar, they nonetheless shared principal values (wanting to make the world a better place through innovation and to have fun in the process), which enabled them to build a hybrid and unique team identity and to transform their collaboration.

Values.

Diversity and relationships developed on the project were two key values articulated by the participants as genuinely meaningful and enriching. Jane explained her perception of the criticality of diversity:

> I think it's [diversity] critical; we could not have achieved what we needed to achieve with Grover without that diversity. Sheldon brought different technical skills: he could physically build the grovers, and I was about function: what we do to bring

> those two things together. And I think what you get is a product that has the best of both worlds.

On the interpersonal level, Jane explained that a healthy approach to the diversity of opinions between collaborating partners was not only normal but also highly beneficial when one tried to achieve a novel solution:

> I didn't have to convert him [Sheldon]; I didn't have to change him. We agreed on a vision and we built towards that vision, and we just accepted that we were different in some of those areas, and that was okay. I think sometimes people tend to gravitate to other people that think exactly the same way that they think about things, but you don't change your worldview that way.

For Sheldon, the dynamic and rewarding relationship built on shared values and a complementarity of individual worldviews was at the core of his appreciation of diversity:

> We both discussed at the beginning that the business side would never get in front of our personal ethics and morals, that neither one of us needs the money more than we want to be moral and be friends.

Talking about the way that the symbiosis of unique perspectives and shared views produced the connection between the project participants, Foster commented:

> I think it [diversity of opinions and personalities was] managed just naturally by the dynamics of the team: generally, all three of us have respect for others; we had good humour. I think there's a part of us that is quite similar, although we have different opinions about certain things, like we'll get to the point we'll agree to disagree, and we'll get to these funny little arguments and then, for some reason, it would end up turning into a joke and negative energy would just dissipate.

For Sheldon, diversity and, ultimately, job satisfaction were manifested in having to work on a variety of projects and in having an opportunity to meet very different personalities

through his work while being able to use his innovation to find unique and practical solutions to the researchers' challenges ("One thing I enjoy about this university is…the immense amount of quirky people"). Foster interpreted diversity through a variety of contexts, such as various approaches, knowledge bases and experiences that provided him with professional growth ("I liked the different viewpoints; there was a growing experience"). He also perceived diversity to be of critical importance for TU's sustainability ("If you don't have diversity, then you have less security for sustainability. You have the ability to rely on other people who've had other experiences").

Actors: *Basic Psychological Needs*.

Autonomy.

For Sheldon, the need for autonomy manifested in his sense of independence and in his ability to choose TU projects aligned with his capabilities and interests, whereas Foster appeared to view autonomy as a pragmatic and context-dependent concept. In his view, managing staff while lacking understanding of and appreciation for what people did or what they were capable of doing imposed significant boundaries on a person's ability to do the job well:

> I fought ferociously for 30 years to keep that independence, because [of] having people that don't understand what they do manage them, and it's never worked out well. I'm incredibly lucky: I have enormous flexibility to pick jobs, which I think I'll be the most useful [at], the most productive. (***Sheldon***)

The ability and flexibility to select interesting and engaging projects provided Sheldon with a source of motivation and, ultimately, of productivity and efficiency.

For Foster, autonomy meant the importance of balance between having a structured approach and allowing the project to take its natural course of development:

> You certainly need to have structure, at certain points and [in] certain things, but we also need to have freedom to be able to let things happen in a way that they're meant to happen; you need to disassemble and just let things go.

In decision making, Foster did not feel the need for autonomy as strongly as Sheldon. For him, it depended on the issue in question and on the sphere of influence or control. In a sense, Foster advocated an alignment of autonomy and practicality.

Competence.

The following three elements related to competence came to the fore:

- the critical nature of skills' complementarity for collaborative projects;
- the importance of holding cross-boundary competencies, such as translational skills and a global (future-bound) mindset; and
- the actual process of competence acquisition.

In Jane's view, the success of the project was attributed to the different sets of skills of the project participants ("One of the reasons why it's worked is because Sheldon and I have such very different skill sets", "We really complement each other"). Jane felt particularly strongly about being aware of her perceived knowledge gaps, and of knowing when and whom to bring into the project and when to do so in order to provide those "missing skills".

All the participants acknowledged that, while they all possessed core skills and technical competence that they needed to do their job, each of them discovered areas of expertise that they lacked. "I know enough to know I don't know enough" was Foster's critical assessment of his competence, and "There's so many missing skills that I have!" was Jane's equivalent self-appraisal. They all acquired manifold skills through participating in the external research training program ("I think we both had [an] enormous learning curve!", exclaimed Sheldon). Foster extended his perspective on competency through commenting on

the importance of continuous learning in the field ("The whole commercialisation side is a really interesting topic for me, and I realise I need to invest myself more into that learning curve, and stay on it for good").

There were certain cross-boundary skills that were required for the success of this project. Jane believed that she "didn't speak that language" and needed skills of translation to multiple audiences, which stemmed from a broad skill of communication mentioned by all three participants:

> There is that translational skill for everything: Foster was translating his expertise, but Sheldon was translating his, and I was translating mine, like when I would speak about science, I would speak completely differently if I was speaking to someone [who did not have a science background], so having people that can communicate and translate that I think is really important. (***Jane***)

Both Jane and Foster commented on building cross-boundary networks, and on the highly valuable entrepreneurial skills that each of them developed during the program. Foster referred to the importance of possessing a global mindset, or an ability to envisage a future benefit for TU through providing staff with opportunities to advance their skills. In his view, it was a sign of trust and a strong vision of a manger through investing in their staff development:

> So **that** is gold, and it's reassuring for me to have that trust, but it's also reassuring in another way, [through] the value this creates for TU: you have that kind of knowledge and experience coming back to TU. For me it's reassuring of a certain level of directorial maturity, and knowledge and awareness; that's good leadership.

Competence acquisition and transformation for Jane ("It's changed my skills sets, my ability to communicate; I've always thought that I was a good communicator, but I had never been conscious in my communication before") were accompanied by a feeling of discomfort

through being taken outside her comfort zone ("I've been stretched so far outside my comfort zone!"), and a sense of vulnerability ("It was hard to be that vulnerable").

Relatedness.

Despite the unanimously acknowledged need for and the value of professional groups' connection, participants recognised the challenge in achieving that connectedness. "I feel like we need to do a better job of communicating between those different groups: creating situations or events, or something where people cross those boundaries", as Jane expressed it. "We have more and more communication devices each day, but it's still harder and harder to find people, because everyone's more and more busy" were Foster's sentiments on this matter.

Sheldon, although being generally a solo worker, relied on other people's assistance, advice and expertise ("I am very lucky I have friends scattered everywhere through TU and society"). For Jane, relatedness and networks provided access to diverse expertise, knowledge and practical solutions ("I knew that I didn't know how to solve the problem. I think that willingness to connect with other people is so important", "Networks are fundamental because I personally know people, and I reach out and I get things done that sometimes other people couldn't get done").

Cross-boundary connection between people on the project manifested in project members' feeling as being in their *element* and providing the value of their skills and expertise to others. Through this exchange, the power of their relationships strengthened gradually ("The working relationships, [they've] just cemented, made it really solid for us, so we built a lot of trust with each other" was Foster's comment). Participation in the external program simultaneously resulted in a dramatic increase in competence and generated a higher level of connectedness among the three of them, challenging them in the process ("We were running at the start of the thing; they're like, 'This is a marathon, not a sprint'. But I can

honestly say I feel like I was sprinting the marathon the whole time!", as Jane expressed her feelings about the program).

Recognition for professional staff and recommendations for future collaboration. The *serendipitous* or *accidental* ways of finding out about people with the *right* skills for collaborative work presented a problem for staff and for TU, as recognised by all the participants. Sheldon felt a strong sense of disconnect not knowing whom to ask for help, especially when they started working on commercialising their product ("That was a bit of a minefield trying to work out who do you speak to, who do you go to").

A few ideas and recommendations were put forward as ways of ameliorating the disconnect among the TU staff. Jane was a strong proponent of the idea of both utilising the soon-to-be-established physical building of the new Innovation Centre and building a strong collaborative culture across TU ("We're trying to take a systems approach to [the problem of disconnectedness]: we're now having a working group called 'Technology and Innovation'. We're trying to reshape the whole landscape at TU"). The idea was to facilitate innovation that could later be translated into a wider collaborative engagement. Jane also promoted the need to support staff engaged in innovation and collaboration by providing the means of collaboration (physical space and time), and by recognising their collaborative efforts:

> We don't acknowledge or value that collaboration; it's not captured in your performance at work. It's like, every time you cross those boundaries, it's extra on top, but it's not something I feel that TU values. TU needs to change the way that it's structured so that, if a tech staff is approached by someone or if an academic is approached by someone to collaborate and work across those boundaries, how do we give people space to create it?

Sheldon suggested an active propagation of the values of innovation to encourage both staff and students to engage in innovation and to utilise innovative solutions more

effectively. Foster proposed a series of solutions to improve connectivity among staff, and between staff and students, that may lead to increased collaboration. Both Foster and Jane advocated fundamental changes in a way that TU supported staff's connectivity, creativity and innovation through "creating culture", enabling staff "to go out and meet everybody" (in Foster's words).

For recognising professional staff's efforts in collaborative cross-boundary work, Jane, similarly to a number of Phase One participants (e.g., Francesca and Nancy), advocated an individual approach based on understanding people's motivations and correct interpretation of the stimuli:

> If you're going [to] try to answer what professional staff want, you need to understand: some people value affirmation, some people value a monetary prize, and the only way that you [are] really going to effectively motivate people is if you speak all those languages. I think it's understanding what motivates people.

Jane's insights about professional staff recognition were confirmed invariably by Sheldon's and Foster's opinions. Sheldon, for instance, being an innovator and a designer of technological solutions, perceived that his motivation came from the inherent qualities of problems about which people approached him ("I am **not** someone who is particularly interested in business affairs. I've got lots of other things sitting around I can patent quite easily if I were so motivated. But I generally just like [the] interesting side of the things"). Getting activated when "it's a really hard problem to solve", Sheldon also insisted on using the term "acknowledgement" rather than "recognition" in the context of professional staff rewards ("I think *acknowledgement* would be the word: I don't do anything for recognition; I don't care"). Sheldon later made two comments that provided deeper insights into his perception of the value of acknowledgement. Firstly, he expressed a desire to pass his vast technical knowledge and skills onto students and the younger generation ("If you have all this

knowledge, it's a shame not to pass it on to the younger people"). Secondly, Sheldon reflected that, when he presented to TU a number of various innovative solutions, and when the university did not use his innovations, this made him feel disappointed and frustrated, and, ultimately, unappreciated. In Foster's view, motivation was derived from being "acknowledged and treated respectfully". Similarly to Sheldon, Foster's view of appreciation was that it came from the actual projects: when the project was set up appropriately, and when it created an impact within TU and among the potential investors ("That's a real buzz; that's like a game"). The acknowledgement needed to come from peers: Foster meant academic staff in particular whom he assisted on various commercialisation projects, and "who really appreciate[d]" him and his work.

Summary of findings for *first order* themes' development.

This was a unique project of a *semi-autonomous* university *third space* of designing an innovative research solution that transformed into the establishment of a new independent company. Within this case, the participants discussed organisational boundaries (bureaucratic structures and protracted processes that were not conducive to people's collaboration), the serendipitous nature of locating professional staff with the required skills and mindset to work on the projects, and, finally, the limited time and space allocated for innovation and collaboration as the main challenges to staff working together across boundaries.

Despite the acknowledged widespread disconnectedness between individual actors and professional groups, the three interviewed participants used complementarity of skills, building a unique hybrid team identity and professional networks, while learning from a national research innovation program to achieve what was required for their project.

Cross-boundary learning through identification took an unusual path. At the beginning, the three participants utilised their respective sets of expert practices, and integrated their professional identities in a complementary mode to suit the project goals. As

the project progressed, and when it transformed into an independent entity, this produced a delineation between expert practices. Those initially intersecting identities and practices continued developing apart. This project was an example of rapidly changing and transforming identities of each of the three participants.

The new competence acquisition during the project was a laborious and stressful experience. All three of the participants commented on a range of cross-boundary skills that were developed (e.g., translational skills), and that assisted with communication among the three of them, and with the wider research community.

As the relationships, cross boundary competence and networks were suggested to be the reasons for the project's success, the participants confirmed the importance of encouraging professional staff to collaborate and work across various boundaries through developing physical and cultural frameworks to facilitate connectivity between staff. Finally, professional staff motivation was considered to be a highly individualised quality. Leaders were recommended to invest in learning what would drive individual staff motivation in order to design appropriate professional staff recognition and acknowledgement.

5.4.2. Tropical University (Australia) Case Two: "Building the aircraft while flying it": A case study of teams defying the boundaries and working together to deliver a new model of generalist medical training

Facts: ***Narrative Case Summary.***

This project was the first phase of collaboration between professional and academic teams in TU's Division of Medicine. The team developed a new medical training program in response to the College leader's call to participate in a unique competitive government tendering opportunity. From the start, project participants who had just two months to develop this large-scale, multi-million-dollar project adopted a motto of "*building the aircraft while flying it*" to reflect what seemed like unachievable challenges that they faced: from

dealing with severe shortage of staff, to training new recruits, to learning on the project themselves – all these while continuing with the existing training delivery. Another challenge was to make the project fit into TU's organisational boundaries to capitalise on the existing infrastructure and systems.

Staff relationships were not devoid of challenges either. At the beginning, with little time for consultation or communication, diversity of opinions was not tolerated, and at times was replaced by autocracy and fast-paced management decision making. Later, as the project advanced, diversity of insights and staff innovation were often seen as challenging the consistency that was required for a project of that size and complexity, and therefore largely discouraged. Hierarchies and boundaries that were constructed to protect consistency were viewed by many as a new and unavoidable stage in project unification. It was important and yet often frustrating, as it introduced firmer control and removed direct lines of communication between staff. It also led occasionally to a delineation of professional and academic communities.

Despite all these challenges, the first phase of the project was an undeniable success. Competence, equal contributions of people's knowledge and expertise, and their ability to develop new skills were key success factors. The critical roles of an inclusive, visionary leader and of a distributed model of operations were other crucial success factors. The model defied geographical boundaries, used highly centralised decision making and relied on the power and authority of local stakeholders and human connections and relationships at the remote sites.

Key learnings from the project were that professional staff, given an opportunity and encouragement to take a step out of their substantive roles' boundaries, can really step up and prove that their capabilities and mindset are sufficient in order for a project to succeed. Professional staff most of all value their peers' and managers' appreciation and recognition,

which manifest through being given further opportunities to contribute *in a significant way*, and just by saying “Thank you for a job well done”.

Possibilities and challenges.

Within this large, *semi-autonomous*, later transitioned into an *integrated* project, four participants – Amelia, an academic; and Abby, Magda and Vera, three professional staff – elaborated a number of topics related to the project and to staff collaboration. This project had been developing over two years, and its accelerated movement towards the university core domain of teaching and learning had had various impacts on professional relationships between project participants and across other teams within TU.

A *semi-autonomous* university *third space*, within which the project was conceived and developed through its initial two-years’ phase, was an example of a *misfit*: not quite TU, and no longer a separate, corporate entity. From the organisational governance perspective, the original intent on gaining efficiencies through setting up this project as part of TU was not realised entirely, owing to the significant misalignment of the two systems. Amelia acknowledged that it was an “interesting” structure of multi-layered (de)centralisation:

> [The project] was supporting and funding a lot of the engagement that was happening that was run in the College. It was a very interesting model in terms of the way that organisationally and governance-wise things were set up.

Magda, the project Professional Leader, acknowledged the hardships that she and her team had endured trying to integrate what Amelia described as “apples and oranges”:

> We’ve already got an organisational structure; we don’t need another one. And that was the premise. Trying to convince them [TU managers] that it could be done in the context of TU, trying to fit it into TU….Oh, man, it’s been so hard! (***Magda***)

The overall incompatibility of TU and of the project’s systems and processes pointed out that it may have been an awkwardly carved space – a space that was difficult to be

embraced by the university established culture and its governing mindset. This incongruity created tension between professional staff engaged in the project and those who were left behind or outside, or who chose not to participate, thus continuing working in the College. The disparity between the professional status of staff working on the project and that of the colleagues who stayed outside, as well as unequal resourcing between the College and the project, presented a challenge for Magda to manage this *third space* of incongruity and tension ("It's also very difficult when the other half of your job isn't like that: I've got half a College that's full of money, but short-term, and [the] other half that's struggling").

Later, as the project *folded* back into the College, those disparities gradually became less prominent. During the first two years, however, creating a niche within TU was what the project team worked relentlessly to achieve. Mark (Phase One participant), comparing a university with a living organism, noted that a *third space* evolves and finds its niche within a university only if there is a clear purpose for its existence. Otherwise such spaces, *bolted on* to the margins of the core university activities (*semi-autonomous* university *third space*), "get abraded and fall off", or start an existence independent from a university. In other words, in Mark's view, an idea of a marginal or an isolated university *third space* was nonsensical. This could be only a temporary solution for TU ("In the long term, it will have to [either] find a niche [within the organisation], or [else] it'll get spun off as an independent company and survive on its own", as Mark elaborated in response to this question).

As all participants noted, owing to the shortage of staff, time constraints and the imperative for people across many sites to be efficient and self-sufficient, people were developing new solutions together while dismantling the boundaries between the project and TU:

> There was a lot of camaraderie, especially in the early days, down to a great group of people who started it all off. We just felt like one big team. Now everything is in

> place, or all the policies and procedures, it needs to fit more in with TU as a whole. (***Vera***)

At a later stage, the extensive and fruitful engagement between staff around co-designing entrepreneurial solutions was replaced by the project leaders' desire for achieving consistency of practices across the program sites. The introduced and rapidly growing hierarchies assisted the project leaders in monitoring consistency and in managing staff who were rapidly growing in numbers. Those hierarchical structures were perceived by many as putting larger distance between people and (re)constituting boundaries:

> It was not particularly hierarchical. It's becoming more so, but, particularly in the early days, everyone was just wanting to achieve the goal of delivering the programs, as best we could, assisting everybody else; it was really quite entrepreneurial. (***Vera***)

The redistribution of the geographical boundaries in the region created an opportunity for TU to engage in the project. It was a unique chance to claim a new space for TU. Internally (re)drawn boundaries, however, which developed as the project matured, had an undesirable effect on many staff as those boundaries were seen as curbing their innovation and enthusiasm:

> Now it needs to fit more in with TU as a whole. I can sort of understand that, because we need to keep a certain structure, a consistency across the [project]. So, if people go off doing things willy-nilly, then it can get a bit out of hands, [as] everyone's really innovative and enthusiastic, so they [leaders] need to keep some sort of boundaries, so I understand that, but it can be a bit frustrating [and] disjointed. (***Vera***)

Despite notable tensions between groups of staff, the project gradually filled a carved-up space integrating this university *third space* into the institutional framework.

Communication.

Exploring further the communication as it evolved during the first two years of the project, it is important to note that a number of professional staff experienced what Vera and Amelia referred to as gradual deterioration of the collaborative environment. Relationships were “becoming more hierarchical”, as Vera described it, which gave rise to the “delineation between the academics and the professional staff” and to a sense of insulation shared by many professional staff. As various boundaries (geographical, organisational, cultural, group professional identities) were being navigated by the participants during collaboration, the following learning processes were observed as taking precedence at the institutional, interpersonal and intrapersonal levels.

BCLM: Identification.

Before and during the project development, various groups of staff were introduced to the process. This included people who applied for the role to work on the project who had originally worked in the College; people who came to join the project from an outside organisation; and those who came from other TU organisational units. All the participants brought with them a diversity of practices, ideas and skills. People who were employed from the organisation that had previously provided medical training in the region were viewed by the project participants as experienced and helpful, and their contribution was seen as indispensable, especially in the early stage of the project. As Vera related her experience working with those staff: “We were really, really fortunate to get some excellent staff from the previous training organisation. They [their company] were unsuccessful with the tender, but some of their staff came over to TU and their input was invaluable”. At the same time, there was an initial destabilisation caused by the interaction between professional staff employed in or transferred to the project from within TU and the newcomers:

> They [TU project professional staff] ended up with some new people in their teams, and that in itself has challenged people, because universally the new people we'd brought were more technically skilled than our existing staff and had a variety of experiences. (***Magda***)

With time, the team of new and existing professional staff through collaboration established the complementarity of their practices and focused on their shared goal, which was to enable the medical training to continue with little to no impact on the service continuity across all regional sites.

On the intrapersonal level, for some professional staff the process of the mutual identification of practices that accompanied the project development activated reconceptualisation and, subsequently, destabilisiation and even delegitimisation of their professional identity and their role. Amelia, one of the project academic leaders, presented an account of a professional staff member (Project Officer), who learnt on the project and who very soon became a critical member of the team, on whom Amelia relied entirely. The role went through transformations as the project developed, and the Project Officer's professional identity evolved through the process. When the funding became available to Amelia, she eventually introduced a new person into the project. This new project member replaced and displaced the original Project Officer. For that Project Officer, the displacement led to a discontinuity of identities and practices that resulted in a new space that became very difficult to navigate for both the Project Officer and for Amelia. They decided to part ways later in the project. This was an example of a failed identification between two practice domains and professional identities, whereby an initial critical shortage of staff created a space of multiple boundary crossings with increased and accelerated capability development. The expansion of the project, through funding for additional staff, "disentangled things" (as Amelia referred to this situation) for staff, displaced the Project Officer and caused tensions.

Similarly, a shortage of staff frequently creates the disentanglement of traditional university practices, as observed by Grace, Harry and Nimala (Phase One participants) in their respective accounts. This defragmentation of practices led to failures of identification owing to an inability to reconcile individual or group professional identities, as was the case in Nimala's and Harry's example about the introduction of a new professional role of a Program Advisor, the role that had been traditionally performed by the academic staff. It may equally lead to an ultimately successful legitimisation through the reconstruction of identities in the light of the identities of *others*. On the other hand, George and Grace provided successful examples of library staff delivering academic training to first-year students (George), and of a professional staff volunteering for and successfully performing the traditionally academic role of a first year-coordinator (Grace).

This project example, however, presented an initial legitimate co-existence of two project participants, with the professional staff creating and developing their own distinctive participatory position. As the project developed and the new staff were introduced, a contestation of cultural and professional identities and spaces emerged. The individual professional identities failed to be reconciled, which led subsequently to the delegitimisation of the role of the Project Officer.

BCLM: Coordination.

There was evidence of attempts at communicative connections and at the translation of practices ("We've already got an organisational structure; we don't need another one", as Magda commented) between various spheres of control between TU internal units and the project team. Magda's role was "to help the new staff learn the TU processes quickly, and help the existing TU central people understand why the [project] is different, but we still want to act like we were one College".

At the individual level, many professional staff were actively engaged in making sense of new practices, and in aligning their own competence with their own participatory positions through building connections across and outside the project. Abby commented: “We’ve never struggled with the geographical spread of the teams and connecting and making relationships”. Vera reflected on her experience by saying: “I didn’t feel like I had anything lacking. If I felt that there was a gap in my knowledge, I was able to find someone who could fill in that gap for me”.

During the initial stages of the project, there were no particular signs of boundary permeability between TU’s complex and diverse practices and those practices that were specific to the project. Routinisation of practices was something that both the TU and the project team desired, but that they were not yet able to navigate successfully. Finding those communicative connections between individuals and groups took immense efforts in negotiation.

BCLM: Reflection.

The boundary-transcending processes of making and taking perspectives became evident through reflections on what project participants were learning about themselves, on their own and others’ professional identities, and on how that learning manifested in new practices and new self-realisations:

> From my point of view, try to remember that other person [has] got as much right, got as much value, got as much [*sic*] positions taking this as others have, as an individual. It [the project] helped me to appreciate my leadership skills, engagement capabilities and my management practice. (***Amelia)***
>
> Given the opportunities, I have the skills to be able to step up and outside of my comfort zone. (***Vera***)

> I can be a leader more than I thought, but it relies on me knowing what I'm talking about. (***Magda***)
>
> I learnt what [my managers] saw in me when they restructured my role….It was actually [that] they legitimately believed that I could do it. (***Abby***)

For many professional staff, re-evaluating individual perceptions of self-value through the eyes of their managers or colleagues changed their views of their participatory positions toward the end of the first stage of the project (e.g., Abby, Magda and Vera).

BCLM: Transformation.

During the later stage of the project development, two processes started to occur simultaneously. At the interpersonal level, the processes started to become more embedded, as the project became more recognised and accepted as TU's space, and as it transitioned to a more integrated position. In the outward-facing dimension, TU was establishing a strong presence of this flagship project within a wider community:

> Once we'd started to bed down people on the ground, knew who we were, knew what we were doing, then the relationships became a little less transactional and started to become a little bit deeper. We've got relationships within the organisation and external to the organisation. (***Amelia***)

With that, at the interpersonal level, project teams became more engaged in collaboration, trying to open up the boundaries surrounding the project and to embed the practices that they had established. On the intrapersonal dimension, however, the process of transformation manifested for some as a reversal of autonomy and of cross-boundary connectedness (as related by Vera). The transformational impact on individual professional staff therefore needed to be contextualised within the broader opportunities that project participation brought for them. Magda, for example, was "chosen by the Medical Deans Australia as one of their three representatives". She was extremely proud to be "the first non-

academic, non-Doctor to actually be on that accreditation committee". Being able to contribute to the national policy and to participate in the discussions made her feel "amazing", "incredible" and "honoured" through enabling her to achieve transformative impact beyond the project or TU boundaries. Full transformation at the inter- and intrapersonal levels, however, remained problematic during the first stage of the project, although the collaborative efforts toward transformative outcomes were made by all parties within and outside the project.

Values.

The value of diversity was articulated on two levels: espoused and enacted. Such a delineation was very consistent across the accounts of this project's participants and of the participants interviewed in Phase One. Although diversity was universally considered a *good thing* (an espoused value), the actual management of diverse people and of their viewpoints (an enacted value) was more problematic. The attitude towards diversity was undergoing significant transformation at various stages of project development. Magda believed that the gradual development of diverse practices and process occurred as the project team matured and acquired confidence:

> In the beginning, we probably didn't allow it [diversity]. We just steamrolled people into doing things this way. We now don't do that as much, because it's not respectful. It's just normal: once people became more confident with their own job, it is normal to design your own ways of doing things, and we give people licence to do that, but at the same time… (***Magda***)

Vera believed that, in an all-encompassing striving to achieve consistency and unification of service practices, some of the creativity, entrepreneurship and diversity was thwarted. Similarly, as Harry (Phase One participant) commented, TU had generally very low use of diversity, which presented a threat to the organisation ("I just don't think at the

moment we are using all the intelligence of the organisation. We're not using the professional staff; we are not using a diversity of ideas").

Finally, Amelia problematised the diversity in her reflection on multiple diversity narratives. She discussed diversity as different ways of operating vs. a diversity agenda within the Indigenous context:

> There's this kind of challenge sometimes about things getting dumped into a strategy focus around diversity versus the context of working in diverse ways with diverse groups and diverse peoples and being able to be respectful of each other. (***Amelia***)

It became apparent that diversity had multiple meanings within the context of the project and generally within TU. *Bounded diversity* may be a more appropriate term to describe the complex relationships between the actual and espoused values of diversity.

Actors: *Basic Psychological Needs*.

Autonomy.

Autonomy was connected by the participants with the ability either to take part voluntarily in the project or to make decisions of their own volition while working on the project. Abby and Amelia reflected on the situated autonomy. For example, Amelia had a lot of autonomy within the context of Indigenous programs, but not so much within her other position that she held at that time. For Abby, autonomy meant the ability to make decisions defined by her sphere of influence and control. Vera, unlike Abby and Amelia, who were both offered the opportunity to work on the project, applied for this job as she believed that it provided "more opportunities" and that it "seemed like a new adventure" at that stage of her career. Her views on autonomy within the project were affected by her reflection on the need for consistency of systems and processes across all distributed sites. She fully acknowledged and appreciated the need for uniformity, and yet she was not entirely satisfied with the way that her efforts for innovation were crushed. Magda, on the other hand, had no choice but to

assume the management of this project, considering her leadership role in the organisational unit.

Reflecting on autonomy within the context of the project, Magda admitted that many operational decisions were made at the start of the project autonomously, without involving other team members, owing to a lack of time and a shortage of staff. Magda also commented on the distributed decision making and leadership model. This model had been adopted by the organisational unit long before the project developed. It defied geographical boundaries and provided local staff, simultaneously, with a high level of autonomy and with responsibility for executing strategy at a local level. According to Magda, for some staff, the model meant more autonomy than they were prepared to have. Although project leaders tried to select people who "thrived on that", that type of self-reliant work was not for everyone, and "not everybody who started with us stayed with us, for those kinds of reasons" (Magda), which resulted in a high turnover of staff throughout the project. Such a model also presupposed a heavier emphasis on a consistency of systems and processes, which for some (such as in Vera's case) constituted an environment thwarting the innovation and autonomy of individual actors.

Competence.

Competence was interpreted as knowledge of what needed to be done for the success of the project, which was not something that all participants could confidently claim that they possessed. The concerns about this knowledge deficit were expressed especially strongly by the professional staff who needed to collaborate and innovate from the start to develop the new systems to support training delivery. The challenge of "trying to implement TU's policies and procedures in a project that is completely different", as Magda described it, was exacerbated by the fact that no time or space was afforded to professional staff to accumulate knowledge gradually. A severe staff shortage prompted people to acquire competence in a

fast manner going over and above what they were assigned to do. Vera mentioned that “there was so few staff [that] we all had to do what needed to be done, rather than sticking to our position descriptions: it was more about who had the ability to do what”. Vera’s sentiment, shared by all project staff, had parallels with the opinions of many Phase One participants (e.g., Mark, Tamara, Grace and Harry). The general expectation from TU was that, in order to be considered for TU collaborative projects, professional staff had to possess a complete skill set prior to the project or, if any skills were lacking, they were expected to acquire expertise rapidly. There was little to no consideration of creative space-time allocation for staff to develop new skills or to work on innovative solutions.

Within this project, competence for some professional staff was synonymous with confidence. As Abby commented:

> I never thought I’d be at this level. I actually don’t have an undergraduate [degree], so I was very surprised to ever get this far, to be honest. I do actually remember saying, “I don’t actually think I’m capable of being at [a Team Leader] level”.

There was a clear dissonance between the managers’ assessment of Abby’s abilities and her self-assessment, as Abby reflected: “They were very supportive in me questioning myself about whether I was capable. Apparently, I see myself very differently to the way they saw me”. Abby’s managers’ and her own perceptions of her competence eventually converged. In contrast to professional staff, academics, while frequently admitting not knowing all the answers and having to create and innovate as they went (hence the expression “*building the aircraft while flying it*”), did not express any concerns about a competence deficit either of their own or of professional staff involved in the project.

Relatedness.

Relationship building and connecting with various people across TU were generally perceived by professional staff as a critical need to engage with diverse viewpoints and,

generally, to advance one's career. Vera commented that "It helps in the role: different people have different experiences and knowledge or ideas, and also [it helps] for [one's] career, to make connections with other people".

Paradoxically, the distributed model of management and responsibilities was claimed to deliver simultaneously connectedness between staff and community and among staff operating across sites, and a discontinuity of practices. As Magda explained, staff working across different sites started designing new processes, procedures and ways of doing things ("That's one of the downsides of the distributed model you have to watch out for"), causing inconsistencies and new complexities within evolving practices.

Recognition for professional staff and recommendations for future collaboration.

The question of unequal professional recognition of professional and academic staff was brought to the fore by one of the academic project participants, reflecting on the fact that *third space* may be more problematic if reciprocity were not maintained:

> That is the challenge for those of us who are on the other side of the table in the senior management professional academic roles that we're able to bring to the relationship an engagement, a way of making sure that the people that work with us are valued and feel respected, and feel and understand that we acknowledge them for who they are and what they're bringing to this. (***Amelia***)

Amelia's suggestion was to consider different ways of employing professional staff in order to achieve a higher engagement of these staff with collaboration agenda. The suggestion to employ professional staff whose role on a project had a "crossover into academic research project related work" (Amelia) was similar to what Mark (Phase One) suggested by introducing intermediary ("paraprofessional") roles into TU to recognise professional staff's contributions to TU *third space* projects.

Contrary to the assumptions of some academics that professional staff expected to be remunerated if they worked outside the role boundaries, it became evident from professional staff's interviews that they were driven by intrinsic motivation and by types of acknowledgement that had no monetary remuneration for their contributions. Magda, for instance, most of all valued acknowledgement of her competence ("I'm feeling good about being able to exercise leadership in terms of having the people I employed two and a half years later saying, 'Jeez, it's been great working with you!'"). Reward for her also came from seeing the project taking shape and from delivering the successful outcomes ("just designing and seeing come to fruition the entire structure", "seeing it play out in terms of outcomes").

Vera's motivation came from being able to contribute to the overall project success, sharing her knowledge with her colleagues and deriving satisfaction from an occasional note of recognition from her peers and project leaders. Magda concluded the discussion about opportunities for professional staff by saying that "We pay lip service to that a lot, and I don't think we provide very many opportunities at all".

Summary of findings for *first order* themes' development.

In summary, this *semi-autonomous* university *third space* project was perceived as a challenge, both from within and from outside the project boundaries. Its legitimacy as either an independent corporate structure or as part of TU was questioned. Boundaries and hierarchies that were created as the project progressed were viewed as inevitable, which impacted unevenly on professional staff members' sense of autonomy, competence and connectedness.

Diversity was treated by participants as a pliable attribute of the organisational culture: it was used pragmatically at various project stages. The diversity narrative was multi-layered and not always nonproblematic.

All four dialogical learning mechanisms (*identification, coordination, reflection* and *transformation*) were enacted in the course of the collaborative engagement between academic and professional staff within the project, and, equally, on an institutional level. The learning potential of crossing various boundaries, however, was realised primarily through identification (when the boundaries were [de]/[re]constructed), coordination (with a partial transcendence of boundaries in the search for a continuity of training delivery) and reflection at the intrapersonal level as participants were trying to make sense of their renewed self-realisation through perspective making. Transformative learning at the institutional level appeared to remain problematic at this stage of project development.

Overall, professional staff views on how acknowledgement of their contributions needed to be enacted were somewhat different from those of the academics working on the project. Professional staff appeared to be more driven by intrinsic motivation vs. tangible (monetary) rewards. The importance of providing professional staff with opportunities to take part in various collaborative projects and other cross-boundary work was equally recognised by all project participants.

5.4.3 Tropical University (Australia) Case Three: "If you build it, they will come": A case study of a significant organisational change that emanated from a technology solution

Facts*: Narrative Case Summary.*

This was an example of a small-scale, organically developed innovation project with minimal funding that was completed seven years ago. It was led by professional and academic staff from a Research Technology team. It involved developing a concept, and co-designing and building a new online Research Portfolio for each TU researcher to display individual research achievements to attract outside collaborators and students. TU staff with the appropriate expertise through accidental discussions between managers were approached to develop and implement the project in-house. People were chosen carefully, as they

possessed not only skills, but also the right attitude and passion for innovation. Soon after the solution was developed and the project launched, a TU Leader made the Research Portfolios the single point of truth for research publications and researchers' promotions. It was a remarkably successful project that started within one team and that developed into a core TU project.

This case study illustrates how collaboration by the right people who were passionate about finding solutions and daring in crossing various internal system boundaries led to a very successful outcome. It also demonstrated the benefits of inclusive, user-centred, participatory design. An organic, fluid and nurturing project environment created by the manager enabled open communication and collaboration. Accommodating diverse staff needs, creating spaces for free exchange of ideas and skills development contributed to the project success. People were led and trusted as opposed to (micro)managed or controlled. Project team members appreciated the "light touch" leadership and autonomy promoting environment that, they believed, were conducive to innovation.

The project revealed that professional staff needed to be given space and time to explore, develop new skills, and be creative and innovative. Managing diversity should be about unleashing the creative energy of staff rather than about pursuing uniformity. This project's example raised the question of how TU should build connectivity between staff to get the right professional staff matched with the most appropriate projects.

Possibilities and challenges.

This project was an example of an initiative that developed into a small-scale *semi-autonomous* project similar to a business start-up, and that, once operationalised, was integrated into the TU system, or as Myles, the Lead Project officer, expressed: "This is obviously insider business, but it was done in much the same sort of way, in a start-up business environment". There were two participants interviewed for this case: Harry, the

academic leader of the project and the manager of the organisational unit where the majority of the project participants worked; and Myles, one of the key drivers and developers of the project. The idea came out of the need for, firstly, efficiency around TU research data consolidation and maintenance; and, secondly, the development of an online system for the TU academic community. The new system was designed as a single repository of all TU research to showcase TU research effort and to facilitate researchers' collaboration within and outside TU.

Both Myles and Harry elaborated how the organic way in which this project was conceived and developed, getting the "right" mix of people and collaborating with the end users of the system in mind contributed to the project success. This was a "flagship project" (Harry) for their team and for the whole university. It was not "rigorously structured", as people were "contributing where they could and should" (Harry) based on their skills, interests and abilities. In providing staff with time and space, Harry explained his idea that "You can't buy innovation: you've got to make it and live it". Myles attributed project success to the unstructured nature of the project ("The requirements were very organic and very fluid", "Structured approach doesn't usually work"), and to operating as a "more or less self-managed autonomous unit". Harry, in leading this project, expressed that people "need[ed] to be led, not managed" and that "People need[ed] as much management and direction as they need[ed], and no more" in order to enable exploration and innovation. Harry argued that the leaders should encourage and unleash the creative talent of people. Myles responded positively to this creativity-supporting approach. He confirmed that a non-hierarchical team environment based on trust and "light touch" leadership freed his mind, allowing for an open expression of views and for testing new ideas. Myles's view was that, for creative projects, there could be a hybrid (between organic and managed models) approach:

> There's a good mix in the middle to be able to have enough process around it to keep people on track, but, at the same time, you don't want people [to] run so wild that they never get anything done; you need to have not as much control that nothing ever happens, so something in that sweet spot.

In relation to the physical (financial) resources that the team were allocated for this project, both participants confirmed that the limited funding of the project presented more advantages than disadvantages. Unlike a common view shared by the majority of Phase One participants, Myles believed that a "just right" number of resources, or even a scarcity of resources, "forces [people] to have some ingenuity and use [their] wits to figure out how to get this done". Harry agreed that limited resources, although potentially having slowed down the progress, enabled the team to have an improved quality control.

In addition to limited resources and the right balance between management and leadership practices, participants mentioned close connections with researchers through the user-focused design ("talking to the individuals and understand[ing] what they need" and "avoiding the bureaucracy", as Myles expressed his view) as having a positive effect on the outcomes. In contrast to this project and how it was conceived and managed, Harry presented a critical view of the TU environment that thwarted staff creativity, enthusiasm for work and learning, which he attributed to the global issue of university corporatisation: "The cultural mismatch between a modern, managerial university and the thousand-year old, traditional academy can't be broached. We're trying to run it like a corporation, but we are not a corporation".

Continuous bureaucratisation ("TU evolved and subsequently it's become increasingly, astonishingly bureaucratic, and controlling about a lot of their systems", as expressed by Harry) was commented on by both Harry and Myles and by many Phase One participants (e.g., Francesca, Nimala and Mark). The TU structure was believed not only to

thwart staff innovation and creativity, but also to create and perpetuate boundaries that further broke the connections between people and professional groups. Harry proposed that the boundaries in the universities were continuously shifting, and that they were not “hard” boundaries. Although Myles advocated a complete elimination of boundaries, Harry promoted the idea of having fluid boundaries that evolve with the needs of particular TU activities at each period of time.

Communication.

Communication was articulated through collegial relationship between the Research teams, where staff shared enthusiasms and genuine interest in designing novel and original solutions, whereas at the institutional level (between the Research teams, on the one hand, and the Information Technology and Marketing team, on the other) interaction was not as collegial: it was obscured by bureaucracy and divergent purposes. The genuine interaction and learning through collaboration occurred when the members of the project team involved the end users (researchers) in designing and road testing the solution. Through reflection and, later, through transformation, professional staff developed a new understanding of their identity and of their role within the collaborative engagement.

BCLM: Identification.

Identification was established at the start of the project through participants aligning expertise across two Research teams. A contestation of practices occurring between the Research teams and the Information Technology and other teams was evidenced through *othering* at the stage of identification. As Harry expressed his feelings: “I hate the IT industry with a passion. I think it’s full of, at best, rogues and brigands, and, at worst, it’s simply a con; it’s a massive con. It deliberately makes things complex”.

This cross-boundary learning led to a deepening of the divide between the practices of various teams, which led to the Research team developing the project in a semi-autonomous

fashion, with little or no reliance on other TU teams (with the exception of the Library team's generous contributions to the project).

Identification at the intrapersonal level was expressed by Myles through the gradual improvement of his understanding and appreciation of the academic work while working on the project:

> Being able to talk to academics, more as an equal, as opposed to someone who doesn't really quite understand that, so I don't obviously understand every academic process. I still very much sit on the outer, but I feel much more comfortable being able to reach out to academics.

Acknowledging his own position as being "on the outer", he was able to re-assess his professional identity in the light of the academic identities.

BCLM: Coordination.

When two Research teams met to discuss the project, communicative connection was established through the initial shaping of the project and the pathway for its development. The way that Myles himself became involved in the project was described as a "happenstance" and "serendipity" (as opposed to being through design): he became involved in it through a conversation that occurred between two managers who then extended their discussion to include Myles.

As Myles started working on the project, he soon became interested in seeking shared practices between the two research teams and individual team members, trying to understand people's roles and how those roles "fitted together". Similarly, Harry explained how his project team and he developed a solution for TU researchers and for the benefit of the parties that were external to TU while building this solution together with the end users:

> We had to make sure that the user interface was simple, and [that] it presented the data in an attractive way that engaged end users. And we could also be responsive to inputs from people when various ideas were thought about.

The project team worked on making the boundaries between practices more permeable, as the researchers were becoming more familiar with the new solution (Research Portfolios). As the researchers were using the solution more frequently, through repetition and through contributing to its further enhancements, the project team realised that the solution was becoming socialised among all academic staff of TU.

As far as communicating the solution to the TU managers was concerned, Harry admitted that there was a failure of translation that occurred between the project team and the TU managers. Harry expressed that there was a lack of understanding within TU of the co-design approach:

> I really don’t think enough people actually understand what [co-design] really means. It’s just replaced [by] the word “consultation”, but it’s not [consultation]. Co-design is much deeper; [it’s a] set of understandings, and, if you take it seriously and you do it well, you literally co-design a product with people.

The project team therefore considered it beneficial to work semi-independently from the university funding, thus eliminating the potentially undesirable control and the impacts of a somewhat ignorant environment. In the view of the project participants and of their leader, such autonomy enabled them to have an unencumbered communication flow between the academic users and the project team throughout the project.

BCLM: Reflection.

Myles was consistently taking in the perspective and the ideas of the former TU manager who had developed the project concept. This manager was experienced in working at the interface between researchers and technology, whereas Myles at that time was a junior

software developer not yet versed in dealing with complex projects. Using the principles of co-design, Myles and his project colleagues sought feedback from the TU research community to ensure that the project was developing in the right direction, which indicated their commitment to translational efforts and their active engagement with the perspective-taking process. Myles, reflecting on his own learning during and after the project, recollected how unconfident he had felt reaching out to various people to seek their feedback ("Initially, probably not as confident as I am today, because back then I was more or less a junior. Because I hadn't known those people, I was still very much learning, and I still am now").

Developing the rapport with the academic users of the solution helped Myles gradually to decrease his apprehension when crossing the boundaries between the perspectives of TU researchers and those of his team on what the design should look like. His motivation for partaking in the project was expressed as follows:

> The reason it got me interested was [as] a way of extending my skills. As a programmer, I'm always interested in learning about new technologies and doing things differently, because it helps me [to] grow as a person. That's what really drove me into it.

Myles introduced the concept of "passion" as an integral element of his intrinsic motivation:

> If I don't see that there's a benefit to that, or if I don't feel that level of passion, then I can't really help [to] contribute to that unfortunately, because it's that passion that really – at least in this project anyway – definitely drove me along.

Discussing the origins of his internal drive or "passion", Myles explained how witnessing the real benefits of the designed solution for the TU research community "kept [him] going":

> It is very, very inspiring for me to know that something that I've built is actually really helping people, and they find it [so] critical that they feel that they have to go and modify their profile every day. That's where the passion comes from.

BCLM: Transformation.

The idea of co-design (collaborative or user-experience design), which means working together with the end users on a solution that is meaningful for them, was the core guiding principle of this project. In collaborative design, practices become transformed through the co-creation and application of the developed solution. In this project, as Harry and Myles commented, long-lasting, positive change was enacted for the benefit of TU and of the outside research communities and students. A genuinely collaborative engagement occurs when, as Myles explained it, "equal partners who are equally passionate about trying to deliver something that would really work and really succeed [work together], thus driving the project forward".

At the intrapersonal level, a new hybrid practice was created as Myles was collaborating simultaneously with other project partners and with the end users. The benefits of the designed system, which transformed TU practices, were realised and continue to bring value to the researchers.

The challenge lay, as described by Myles, in the continuous negotiation of the intersecting practices in the form of assessing the genuine needs of the end users vs. the needs of TU ("It is a balancing act between the organisation's needs and what the users need"). What could have resulted in a discontinuity of practices, with one side's interests prevailing over the other side's, was fortunately recognised as a shared space and as a genuine need for significant renovation. The resulting transformation, however, was not the endpoint. As Myles explained, the designed solution was being taken to the next transformative level of a

new design stage, which was what Myles's team had commenced already ("At the moment I'm working on the new version of the Portfolio").

Hybridisation leading to a complete transformation of practices, in Myles's view, came from the equal contributions of project collaborative partners, and from seeking and implementing the feedback from diverse users of the system ("talking to a number of different people from diverse backgrounds" and gathering "actual evidence and observation that people have this problem"). The developed solution through a crystallisation of practices led to a genuine transformation of research management practice, thus making the case for how innovative technology led to positive, transformational change for the whole university, fully endorsed and legitimised by the senior organisational leaders:

> A project that was started from the Research Office [transformed] into a project that's now core to TU. You can drive change in an organisation from technology. In this case, we built something that we saw we needed, so academics had the problem. Portfolio gets built, people start adopting it, it gets officially launched and then eventually the organisational policies and process change. (***Myles***)

The project has now grown into "a much larger collaborative project" (Myles), which will continue to deliver transformational outcomes for the researchers, students and TU at large.

Values.

In the project team, the "light touch" management style created by Harry, the Project Leader, meant a flexible and diversity-accommodating culture. This environment assisted people to develop their exploratory thinking, connected them with researchers and other contributors, and, generally, made their creative work and learning process enjoyable. The value of utilising the benefits of diversity was explained by Myles:

> There were a lot of different decisions that ha[d] to be made: everything from what we've trying to build, who we are trying to focus this for, what problem are we trying

> to solve. We need[ed] to get this diversity of backgrounds of people to be able to make sure we actually get it right.

By contrast, Myles and Tamara (Phase One participant) argued that, when engaging with the opinions of large and diverse groups, this at times creates challenges – for example, when one needs to make a final decision (Tamara). In Harry's view, disagreements usually emerged when people were preoccupied with seeking uniformity as opposed to when they acknowledged, respected and harnessed diversity. It was therefore considered important for leaders to provide supporting and nurturing environments and to accommodate various needs of different people, which ultimately meant that accommodating diversity in turn was critical in providing creative space and time for staff. Harry explained that "Diversity management should be about giving people what they need, not about controlling diversity".

Actors: *Basic Psychological Needs*.

Autonomy.

The need for autonomy was expressed strongly by the participants. The "light touch" approach exercised by the Project Leader enabled Myles's creativity to become unleashed; it also supported his autonomy and created a nurturing work environment:

> I think autonomy and [a] sort of "light touch" management style [end] up leading to more creativity, so whereas if, in a micro-managed environment, which I worked in previously, if you have this situation and you have somebody who is micro-managing your day to day business, I find personally that is very disruptive to my thought process.

Having an unstructured job description, or rather not having the need to follow a job description for Myles equalled having productive professional development ("If I lived purely on my position description and didn't do anything outside of that, no, it wouldn't be

very interesting. It would be very limiting and confusing, because it's hard to put what I do in words").

Instrumentally, autonomy was also interpreted as the sense of ownership of both the process and the outcomes of the project. As Myles commented on this, "If the employees can feel [a] sense of ownership [in] the project, much as I have in this case – I absolutely own that, and it's an extension of me". Interpreting work as an extension of self for Myles also meant "being able to make a good decision as to what we should and shouldn't work on". Myles used the reassembled metaphor of "the carrot and the stick" to illustrate the importance of autonomy in his professional life:

> The equivalent here as a carrot and a stick: if I can see the carrot myself, I am driven towards it, but, if it someone's demanding something, then there might be just the same outcome, but I'm going to feel better about it if it's my own drive as opposed to somebody else's.

Harry's principle of managing the team according to the diverse talents that people possess, allowing and enabling staff to work on the projects that aligned with their talents, was confirmed by professional staff as delivering significant positive outcomes for all parties.

Competence.

The expertise that Myles gained working on the project and the professional opportunities that the project created for him were the other significant factors for his drive and motivation ("This has been really formative in terms of my skill and experience to get me to where I am today"). Reflecting on his subsequent career development, Myles commented that he "evolved within that case", and that the skills that he learnt on the project had been continuously put to use. Together with his project colleague, Myles presented at a conference on the transformative power of technological solutions that changed culture, which was another milestone in his career.

Myles and Harry both alluded to the fact that staff were given time and space to develop technical skills for the project; as Harry noted, “As long as you’ve got the right people”, the project would succeed. Harry elaborated his understanding of the notion of the “right people”, by stating that it was unrealistic in the contemporary world to “buy” people with *prêt-à-porter* (“ready-to-wear”, or in this case, “ready to be applied”) skills (“We don’t live in the world where we can buy people that have the skills we want, so they’ve got to make these skills”). Myles acknowledged that he did not have all of the skills at the start, but he knew how to acquire them. Feeling motivated and passionate about the project contributed to his desire to learn and grow professionally.

Tamara (Phase One participant), reflecting on the question about the role and identity of higher education professionals of the future, confirmed Harry’s idea of the continuously evolving nature of skills and competencies that will be required from staff. Myles’s role had been changing over time, and, with a gradual increase in his responsibilities (adding a managerial component to the role), he developed a multi-focal professional identity. Using the same metaphor as Tamara (Phase One), Myles commented: “I wear a lot of different hats”. Although Myles had no difficulty in describing his professional identity (“I am an Online Technologies Manager who bridges research and technology”), he also made a qualifying comment: “My position description is always inaccurate”. There was a clear dissonance between Myles’s sense of professional identity and its representation through a corporate artefact (a written position description).

Looking beyond competence, participants talked about the importance of possessing a particular mindset characterised by a number of critical attributes (in this project context, by having enthusiasm for the project). Myles commented on the contagious nature of enthusiasm and passion (it can “rub off on” other people by getting them inspired and drawn into collaboration).

Myles acknowledged that, above and beyond technical competence, he needed various non-technical skills and abilities to be efficient on the project. The ability to communicate clearly with the end-users in order to translate their ideas into solutions was one competency that he initially lacked owing to an insufficient level of confidence, and that he developed with time:

> [For the] user experience design or even design thinking, being able to talk to user[s], to stakeholders, and be[ing] able to show them prototypes and to understand and to see how they're interacting with something, and then from that to distil what the problem is, and then what the solution should be, being able to have those communication skills – in some ways it's a little bit of psychology – that's really important.

Establishing rapport with academic staff with whom he collaborated on designing the solution was viewed by Myles as an essential part of cross-boundary, non-technical competence building. He considered such cross-boundary competence to take precedence over the technical expertise.

Relatedness.

One of the critical challenges for building collaboration, in Harry's view, was finding the "right people", which he explained by referring to a larger TU's challenge of staff connectedness ("a lack of connection between staff, [having] these walls, and these boundaries…"). Creating a new system to address staff (dis)connectedness and inter-professional boundaries was not a solution in his view ("Usually a system, if you've got a problem for which you think the solution is a new system, you probably haven't framed the problem correctly. Systems are rarely solutions; systems are liabilities"). Disconnectedness, being "an organisational issue [and] a cultural issue", in Harry's view, could be addressed

through staff social engagement ("Maybe there is a role in [a] modern university for some kind of social media forum, but how do you get people to engage?").

Harry's vision of a well-connected environment was also about ultimate talent-matching: "It's just putting people in the right place" according to their talents, passions and desires to contribute. Harry expressed his vision of his own professional identity as being able to "connect ideas with people and people with people, to create new knowledge and new ability in people".

Recognition for professional staff and recommendations for future collaboration.

Professional staff motivation for taking part in collaborative projects was grounded for some (e.g., Myles) in feeling inspired by seeing the significance of their professional contribution. Seeing the benefit of his invention for others and how these benefits delivered significant changes often became the source of satisfaction, and consequently led to further positive engagement. Myles commented that "The work that I am doing in terms of delivering useful projects that actually make a difference is what keeps me going".

The topic of motivation for engaging in collaborative projects was closely related to the importance of recognition for professional staff. Myles desired to make a change through making researchers' lives easier, providing higher visibility and enabling researchers to be recognised for their innovative work. For him, recognition for his work was a secondary matter. When he won the TU Excellence Award and received a monetary reward, he commented that it was "nice but not essential". He was happy to stay invisible, behind the Research Portfolios' scene, and to be acknowledged through knowing that academics appreciated the new solution and continued using it.

Summary of findings for *first order* themes' development.

In this small-scale, *semi-autonomous* project, the opportunities for project staff were afforded through a particular "light touch" leadership style. Having very minimal funding

allocated for this project was advantageous, as it facilitated the development of the technological solution in-house while maintaining control over the quality and the process through focusing on the end user of the solution. The combination of a particular leadership style and attracting the "right mix of people" resulted in professional staff feeling autonomous and empowered. Their innovation and creativity were unhindered, and they used space and time to explore new ideas and to acquire the skills needed to design novel solutions.

Using the diversity of ideas and insights of the participating staff and stakeholders enriched the design process and delivered the product features aligned with what the researchers appreciated. The cross-boundary learning at identification manifested some delineation of practices between the project team and several other organisational units, thus leading to developing the project in a "start-up" mode, fairly isolated from the rest of the university. The communicative connections were built early in the project between two research teams, and between project staff and the researchers, thereby enabling the successful and continuous translation of co-design practices for the benefit of the end users.

The intrapersonal, cross-boundary learning of one professional staff member suggested that a high value was placed on autonomy, which was interpreted as one's ability to feel professional drive, passion and enthusiasm for the project and as having a rewarding, autotelic experience of designing the solution, which later led to a university-wide transformational change. It was suggested by the participants that in the contemporary environment skills and competence needed to be developed on the job, and to evolve throughout one's career. Staff needed to be given space and time to work on acquiring competence and building skills. Among the essential cross-boundary skills mentioned by project staff, the translational skill of advanced communication was perceived as having the highest significance, especially for the projects that involved user experience design.

Despite a high degree of connectivity between the project group and the stakeholders, the participants commented that the overarching university-wide challenge was disconnectedness between people and among various professional groups caused by the multiplication of bureaucratic boundaries, which resulted in low awareness of and therefore low access to professional staff members' skills and talents. People's persisting disconnectedness was considered as a risk to staff collaboration. Tentative solutions were proposed towards the alleviation of the problem.

5.4.4 Tropical University (Singapore) Case One: "An exciting place to be": A case study of fast-paced, cross-cultural, cross-campus collaboration for building a research culture at Tropical University (Singapore)

Facts: *Narrative Case Summary.*

This case of successful cross-cultural and cross-campus TU collaboration started in 2017 between academic and professional staff in Singapore and Australia, divided by geography and culture, and yet strongly united by one goal. This goal was to establish a strong research presence in Singapore that would build on strengths and capabilities from across the whole university, aligning with niche research areas in Singapore. The first phase of the project was completed successfully by launching "The Research Institute" in September 2018.

There were a few significant project challenges, including the difficulty of accessing government funding, difference from the Australian policy environment, geographical boundaries between the two campuses, and TU Singapore internal challenges related to professional and academic staff lacking knowledge and experience in research enterprise. An enthusiastic, experienced and activated Research Leader appointed by the Australian campus created an environment of collegiality, collaboration and sharing the vision of a new research culture with staff. Buying into this exciting vision, professional staff soon became inspired

and committed to connecting across campuses to share solutions for the benefit of TU and of their respective teams. For the academic team, transitioning to the new research focus involved changing the value system and recalibrating academic staff profiles, which was not an easy endeavour.

The success of this project through multi-level boundary crossing depended largely on a collaborative relationship between Singapore and Australian staff. The Research Leader pointed out that the energy of Singaporean professional staff working on the project, their passion to grow the business and their love for the organisation were other positive factors. Collaboration was perceived in Singapore as a way of getting things done in an efficient manner. It was therefore important to enable and encourage professional staff to be collaborative, as at times they lacked confidence to take initiative. The biggest challenge was to develop a way of getting the right professional staff connected with the most appropriate tasks, and to acknowledge professional staff for partaking in collaborative university projects.

Possibilities and challenges.

This case was a combination of a large-scale *semi-autonomous* and *integrated* project. Four participants – two professional (Kim and Norah) and two academic (Joseph and Nancy) staff – discussed the topics related to the project and staff relationships through collaboration. There were a few significant project challenges. Among the most significant were:

- the difficulty of accessing research government funding in Singapore;
- difference from the Australian policy environment;
- geographical boundaries between the two campuses; and
- a number of internal challenges related to professional and academic staff lacking knowledge and experience in research enterprise.

There was also a challenge of reconciliation between the pace of work and decision making between the two sites of collaboration. This dynamism was reflected in all areas of

the Singapore university campus operations. As Nancy, an Australian staff member based in Singapore, explained: "If you compare the way things operate in Singapore compared to how long it might have taken in Australia, I think it's super-fast in some respects". This situation was interpreted by the Australian participants as *no red tape*, *no organisational boundaries*. This was what they observed when visiting and staying for short periods of time in the country. Singaporean participants, however, described an environment characterised by *multiple hierarchical structures* – an environment where multiple boundaries intertwined.

According to their description, multiple boundaries co-existed, yet having no effect on people's ability to work together, innovate and be efficient:

> We are in the Research Support [area]. It's not like we are all and the same: the other way around, it's not like we are on the same level; it's this hierarchy. We call ourselves a "team", we call ourselves "Research Support", but actually it's more vertical…than horizontal. [Nevertheless,] I am working as a team, I am acknowledged as a team there, we work very well together. (***Kim***)

The project created a unique space for staff to work simultaneously within the TU Singaporean team (Nancy, Kim and a group of Singapore researchers, supported by marketing, technical and IT staff), and across geographical boundaries with TU Australia (Nora and her Australian research management team). This complex collaboration enabled staff to develop structure and legislative foundation for the new research entity. Joseph referred to it as a "greenfield" project, which, as Norah expressed, was devoid of a legacy of previous experiences or preconceptions:

> It's quite easy to do business in that context because it's so new, so there's no[t] any old system or any old issues – and that's cultural – whatever I'm proposing, they have no other experience or knowledge of anything else. So it becomes very easy; they [Singaporean staff] are so willing to adopt what we have here.

Another element that contributed to the success of this project was an inspiring and *activated* leader who was able to draw on people's competence, and to connect people to instigate collaboration. According to Nancy and Kim, having an energetic Research Leader on the project was:

> …outstanding in making all that happen and all of the research excellence that he brings, the people who he brings around him, but he also draws on really experienced and knowledgeable people as well. He's made good connections here in Singapore to make sure that the institute will be sustainable and of good repute. (***Nancy***)

Generating energy and managing the team's enthusiasm by "activating" people were seen as key priorities by Joseph. As commented by a few Phase One participants (e.g., Henry and Tom), unleashing staff energy ultimately enabled them to create, innovate and collaborate. As noted by other project participants, the energy activating qualities of the leader formed the core of the interpersonal dynamics, building trust between project participants and helping them to learn and progress:

> When I first went over [to Singapore], before [the Research Leader] was in the role, it was a very much less enthusiastic and animated environment….The culture was quite different.
>
> It's been great [now], and I have a great relationship with them over there. They are a really good team, because [the Research Leader] sets such a relaxed environment. It's very much collaborative and team based. (***Norah***)

Communication.

The following cross-boundary communicative learning processes were noted as occurring at the institutional (between staff in Australia and in Singapore), interpersonal (within the project team) and intrapersonal (individual participant) levels.

BCLM: Identification.

There were contrasting opinions of the ways that professional and academic staff defined their roles and identities in TU Singapore as opposed to how it occurred in TU Australia. Joseph's opinion was that the *us/them* dualism between academic and professional staff was more prevalent in Singapore owing to the high importance of personal position and status in Asia:

> It [the *us/them* dualism] can be a little bit more prevalent in Singapore, largely because of the cultural differences and, like in Asia, for instance, when many academics have this sort of very high opinion of themselves, and if you don't have a PhD then "you are below me" sort of attitude.

Norah's opinion was different from Joseph's on the matter of the existing chasm between professional groups:

> It's a **nice** culture [there in Singapore]. They go out in the middle of the week for drinks, they go to the pub together and that's professional staff and research staff. It's the team! And so I don't actually see much difference between whether they are professional or academic **there** like I do here [in Australia].

Kim's (a Singapore-based professional staff member) perception of the team and of team actualisation, however, was quite different from Nora's. Kim was trying to reconcile her own professional identity with those of the other members of the project, to whom she referred as her "team" (Joseph and Nancy). She originally had difficulties at reconciliation: she was trying simultaneously to identify with her team and to isolate her contribution to the project ("I don't have [a team]; it's just me, myself and I"). She succeeded in legitimising her role through reconstructing her identity in the light of the hierarchy of professional identities of Joseph and Nancy by saying: "I am acknowledged as a team there….We work very well together". She established and articulated her own vision of a hierarchical team pyramid. It

may therefore have been a legitimate co-existence of professional identities and associated learning practices within the reconfigured boundaries around the project roles that may have been the key to their team successful relationships.

It is important to note that, unlike Nancy and Kim who were based in Singapore, both Joseph and Norah were essentially “visitors” to the Singapore campus. Their views from an outside culture of Singaporean internal relational dynamics were likely to have been shaped by their high status in the TU hierarchy, and by the way that they were being received and treated by Singaporean team according to that status.

Contrasting views of the cultural practices at each of the collaborating sites (Australia and Singapore) came to light when variation in practices affected staff trying to achieve clear and fast communication. Phase One Singaporean participants (Meera and Anika) commented on the differences between work hours in Australia and Singapore, making inferences about the Australian way of being simultaneously more laid-back (“Slow in answering emails”) and more rigid (“Difficult to locate people after working hours”). Phase One Australian participants, on the other hand, commented on their perceptions of the fast and efficient way that Singaporean professional staff communicated, making assumptions about the different work ethics and operational arrangements of staff in Singapore. When asked to reflect on these variations, participants made generalisations in line with potentially failed identification and delineation between cultural practices on all three levels (institutional, interpersonal and intrapersonal):

> I’ve heard a lot that people overseas really stick to their time; they don’t really work overtime. My perception is that they don’t work beyond certain hours. I think it’s cultural. The pace is slower [there], is not like here, it is so fast paced. I always felt like [in] Australia the pace is slower. (***Kim***)

BCLM: Coordination.

Coordination was primarily registered at the institutional (between Singaporean and Australian sites) and intrapersonal (one Singaporean participant's practices) levels. Norah expressed her concern about the eagerness of Singapore project participants to adopt Australian research policies, processes and practices. It could have been the failed efforts at translation: failed not through not trying, but through not attempting to do so from the start. With no critical evaluation and translation of practices between the two countries, the process moved to routinisation (straight adoption of Australian practices), which, in Norah's opinion, presented challenges and dangers to the Singapore operations:

> One of the challenges…has been their [Singaporean project participants'] eagerness to adopt Australian things without considering fully the Singapore environment, so policies is an issue. They had to re-work to make sure that they are actually fit for purpose.

The lack of critical reflection at a local level of implementing new project-related policies created a high level of permeability of boundaries between two sites that, in Norah's view, was not entirely beneficial for Singapore staff.

At an intrapersonal level, Kim confirmed Norah's view by expressing how keen she was to follow Australian research processes and practices for the purposes of full integration: "I was pretty glad that we are very in line with them [Australian campus research administration practices], and that's important". She explained her purpose, firstly, by her desire for efficiencies in her work ("I really dislike duplicating work"), and, secondly, by stating that her role in research support was new, and that she was happy to have been given an opportunity to visit an Australian research team to learn and adopt established practices ("I have an idea what their roles are and what they do, so I'm picking it up from them").

It appeared that the inter-site boundaries were non-existent at the start of the project owing to the lack of contestation around the practices: practices were "owned" by just one participating site. By contrast, Anika and Meera (Phase One participants) presented a different example in which a local response by that Singaporean team to a global challenge demonstrated that translation of practices between Singaporean and Australian sites was successfully enacted. In their example, within the strict international student visa legislation context, in order to meet global requirements, the TU Singapore team, working closely with their TU Australia colleagues, were able to provide a smart local solution through curriculum redesign and adaptation, which helped international students.

BCLM: Reflection.

All four project participants shared their reflections on the interpersonal experiences of collaborating with others on the project, and on their intrapersonal learning from their new project roles. For Joseph, the boundary-transcending process manifested at the start of the project through making his perspective clear to all project participants: "I actually don't command and conquer. I try to bring people along and get them some ownership in what we're doing".

As the project progressed, Joseph discovered how professional staff generally operated, and this new learning through perspective-taking changed his views about leading the professional staff collaboration space:

> The other major thing I have learnt is that, particularly around the whole professional staff space, most people actually want to be part of something new and exciting, and, if you give them the opportunity and explain to them their role in it, they shift mountains very quickly.

Nancy's changing perception of her new research management role became clear through her reflection:

> You have to take on whatever strengths you have and build on them. So it was really a learning, and then drawing on that. Then that made me say, "Well, I acknowledge that I'm probably not the absolute best person for the role, but I can try to be". This is really a very new steep learning curve.

Nancy's perspective-taking included her reflection on how learning from the Research Leader's experience and working with him on the project helped through enriching her learning. Her perspective-making was achieved through taking stock of how much she realised that she already knew prior to joining the project, and of what she learnt about the expectations imposed on researchers from the perspective of the institutional environment:

> You often don't realise how much you know. How much need there is to educate people on key research activities, like ethics and intellectual property, and how bad we are at doing this for researchers.

Kim's reflection confirmed Norah's concern related to the challenges that researchers come across when trying to meet research administration requirements. Kim, like Norah, turned this challenge into an opportunity for her project role. All four project participants, while engaging in reflection on their roles and professional identities, were actively searching for new and improved ways whereby their knowledge, experience and expertise could benefit the work of other project participants.

BCLM: Transformation.

At the interpersonal level, the group of three participants (Nancy, Kim and Joseph) developed close professional relations and a distinct group identity (as Kim referred to their group as "research administration"). Norah, while visiting the Singapore campus only occasionally to assist with research management processes, observed the interpersonal dynamics of a project group growing and developing into a larger and a more cohesive collective, and identified herself with the team:

> I was quite surprised, I guess, at how good my relationships are with people over there now; we have a great time when I go over. And they are kind of more like friends. I mean, it's a professional working relationship.

Collaboration as the central instrument of the transformation of learning practices came to the fore as the project continued to develop. Collaboration was viewed by the participants as a way of drawing on people's strengths and getting things done in an easier way through working as a team. "Collaboration to me really means working as a team to achieve an outcome and try and make sure that you are pitching to people's strengths", as Joseph explained.

Norah's view of the gradual transformation of practices consisted of a series of observations. She commented on the "dramatic change from researchers working independently to the impact of an investment in an entity of the institute", which brought professional and academic staff together based on the commonality of goals. The right approach that had been undertaken to the project goals manifested in "building a culture rather than building a site" (Norah).

Values.

Cultural comparisons at the national and organisational levels were writ large in all participants' accounts. The distinctive features of the corporatised Singapore campus and the overall country national environment were reflected in their reflections on boundaries and the pace of life. In relation to the national culture and its impacts on the organisational environment, two contrasting views were offered by Norah and Mark (Phase One participant), on the one hand, and by Henry (another Phase One participant) on the other. Norah compared two cultures in relation to the dimension of regulatory compliance, explaining that Singapore was more rule-abiding and had a higher regard for workplace instructions. This made it easier, in her view, to introduce new processes and policies around

research management. Mark supported Norah's position: "I think there's bit more of a consistency in Singapore, in terms of their relationship with authority, and direction, and process, and being told what to do or having a process to follow".

Harry, by contrast, expressed his concern about the way that Australian universities were reflecting the whole country's continuous decline into conformism and conservatism compared with the "high-tech, financially innovative and a very global outlook of place like Singapore":

> We [in Australia] have become very compliant. When it comes to the Asian culture and Singapore, despite being in many ways a very constrained society, people have given up a fair degree of civil rights for economic development, but they've been just vastly more innovative, and their innovation has been based on human capital and ideas. And Australia has in recent years with this corporate focus and this obsession with the mining boom and a whole range of things became very risk averse.

The topic of diversity generated a range of viewpoints. Diversity was deemed a universal condition of a global multi-cultural university environment (Nancy and Joseph), an essential thing despite being a source of occasional frustration (Nancy and Norah), a conditional resource in the context of collaborative projects (Norah) and, finally, a pragmatic multiplicity of approaches to solving problems (Kim). Joseph in his leadership role fully acknowledged diversity, particularly the cultural diversity of staff in Singapore. He contemplated various non-intersecting spaces while dealing with staff conflict:

> I've really learnt you definitely can't do that [resolve conflicts directly], particularly when you're talking about multiple cultures that you work with, because obviously there is very high cultural diversity amongst the staff there, and different cultures will deal with conflict very differently.

Nancy's view of diversity was that it was inevitable being a part of "lived experience" in the same way that diversity is enacted in the natural world. Norah pointed out that diversity may become a constraint if one fails to select the "right" people for the project ("You've got to get the right people, or it becomes a constraint"). Overall, there was an explicit appreciation across the participants of cultural and other forms of diversity, with the simultaneous acknowledgement by some of the challenges of building collaborative relationships within highly diverse environments.

Actors: *Basic Psychological Needs*.

Autonomy.

The idea of autonomy satisfaction for professional staff in Singapore was linked with being introduced to and included in the implementation of TU's strategy (Joseph). Joseph introduced the concept of *activation* as a form of engagement with the project. He related that, unlike some of the academic staff in Singapore, who took a longer time to become "activated", or some professional staff in Australia who often conducted their jobs in a "very perfunctionary [*sic*] manner", Singaporean professional staff, once understanding the vision that he shared with them, "They drive me crazy with their energy; they [are] all engaged and very proactive and nimble".

For Norah and Kim, there was a vast difference in the ways that these two professional staff became involved in the project. Norah, in her senior directorship role, "self-activated" (she had to "muscle [her] way in" once she saw an opportunity for herself and for her team to add value to the project). She talked about having a lot of autonomy and independence in her role on the project, which still required some juggling ("ducking in and out" of the project and of the country) of priorities, but which did not involve changing the work scope. By contrast, Kim had to join the project on her manager's instruction rather than

of her own volition ("I was asked to take up the role when we moved here [new campus site], and then they said I needed to take on more role[s], so I just had to take it up").

Her initial feeling of a lack of autonomy, however, was gradually replaced by satisfaction from learning new skills and increasing her competence in assisting researchers. Her willingness to fill the knowledge gaps by undertaking formal research administration training could be perceived as an indication of a new dimension of autonomy manifested in her taking charge of her competence ("I just want to expand it [the role]; I want to learn; I want to do more"). The environment that supported Kim's efforts in taking initiative in designing new and efficient ways of operating inspired her to engage in professional self-improvement to extend the value that she was bringing to the project and her self-esteem.

Competence.

All participants commented on the need to reinvent themselves and to recalibrate their professional identity in pursuit of achieving what was required for the project. Although Joseph was offered the research leadership role on the project based on a range of skills, expertise and accomplishments that he had accumulated through his substantive work as a researcher ("I knew that I could go in there and really get the high impact quickly"), he felt nonetheless that he needed to develop an ability to "invent on the run" for the purpose of putting the new research structure in place, and to transition staff to focus on the new research agenda.

Nancy was selected to take part in the project partially based on her skills and experience and partly owing to her active research status. It was the energy, however, that was a critical cross-boundary attribute that was required for the job ("[Research Leader] said they wanted someone with the energy", as Nancy described it).

Discussing professional staff's competence, Joseph reflected on the common deficit of confidence across all professional staff regardless of national culture ("I don't think it's

different; it's just a personality trait"). In his view, the more competent and qualified that professional staff were, the less confidently that they acted such attributes out in their work ("Confidence is very important: a lot of people are very brilliant, and they don't have confidence to move without some confirmation").

This lack of confidence appeared to be affecting professional staff in more junior or middle level roles, whereas senior staff did not appear to be lacking this trait (cf. Norah's metaphor of "muscl[ing] [her] way in" in order to take advantage of a professional opportunity). Nancy, an academic staff member who took part in the project, admitted that she possessed only "basic level potential" and displayed "strengths in some areas". However, these reservations that she held about her capabilities did not prevent her from taking up the challenge and assuming a leadership role on the project.

Kim, despite displaying a lack of confidence at the start of the project, decided to take charge of building her competence. She completed a research administration course that enabled her to "measure" her professional achievements and her increasing aptitude in her role.

Other skills and capabilities considered critical for successful collaborative engagement were change management (Joseph); networking and local market intelligence aptitude (Nancy and Norah); cultural awareness (Joseph and Norah); translational skills that were interpreted as a critical ability to apply pre-existing knowledge to specific country requirements (Norah); and a good understanding of personal skills gaps and limitations (Norah). Norah elaborated a need for the diverse and multi-faceted competence of a professional boundary-spanner:

> You want a good operations person, a strategic thinker. You want to bring in different perspectives - professional, academic, student perspectives from, say, the aquaculture

> sectors, from the sector, from industry. You want to bring different perspectives that are independent and not conflicted over the outcome.

Relatedness.

In relation to the need for relatedness, Joseph commented on professional staff *activation* related to their aspiration to be connected with something important, and to be given an opportunity to do so, which was, in Nancy's, Kim's and Norah's views, what Joseph's leadership brought to the project. For Kim, the need to connect with people to learn new skills and to explore the opportunities to streamline the processes was a pragmatic purpose of her cross-boundary work. While she was still in the process of stabilising the foundation of her new role, she was searching actively for opportunities for innovation and improvements, and, to be able to do that, she required both autonomy and relatedness with other project participants and her managers. Rapport (which she referred to as "chemistry") was mentioned by Kim in the context of professional relationships that assisted in making her feel more confident that her initiatives would be supported. Using rapport for personal professional benefits was another perceived aspect of the feeling of relatedness.

Recognition for professional staff and recommendations for future collaboration.

The most significant challenge for TU in relation to better engagement by professional staff was the lack of awareness of the skills and capabilities of TU professional staff. Joseph believed that it was a liability for an organisation if staff skills were poorly utilised:

> One of the real challenges is about this *third space* professional academic managerial people working effectively together: we all need to know our staff and what their competencies are, and the first thing we need to do is an audit. I am very sure that they are there amongst many of the staff, and sometimes until you sit down and have a coffee with them you don't actually know what they can do.

By conducting an audit of all professional staff members' skills (Joseph) or compiling a skills matrix (Norah), it was suggested that TU leaders would be able to learn more about staff. Tamara's (Phase One participant) recommendation of drawing upon staff reputations from previous collaborative projects was supported by Nancy's suggestion to draw upon recommendations from trusted colleagues as to which professional staff could be invited into collaboration. Norah stressed the importance of "inviting" professional staff to be part of the research strategy, and she emphasised the imperative of staffing projects based on the skills that were required ("[It w]ould be very nice to really carefully think about project teams upfront, instead of just appointing people to project teams as a result of their position. Actually, a skills-based team on initiatives would be fabulous!").

A logical step in increasing professional staff's access to diverse, university-wide projects, as proposed by Phase One's (e.g. Mark) and this case's participants, was providing opportunities for staff to trial new roles. A "low risk" scenario was put forward, whereby staff could "step into" a new role to "try it", without being required to give up their substantive position. Joseph believed that this arrangement would make people more likely to take part in projects, as it eliminated the risk of losing the substantive job. The benefits for an individual and for the organisation were obvious, he believed – hence the attractiveness of this model ("It actually allows you or **that** organisation to get access to skills sets, but it also allows people to be able to step up and try new higher duty positions without fully immersing themselves").

This job share scheme, referred to by Joseph and concurred with by other participants (in this project and also in Phase One), had been in operation at TU Singapore for some time. Although it was open to all staff, it was used primarily by professional staff within their own professional domain with no crossing of professional boundaries to get into para-professional or para-academic roles. There were practical benefits of this scheme, alongside several

challenges, as indicated by Phase One interviewees (e.g., Harry, Nancy and Meera). The scheme was not perceived as a cross-boundary staff engagement model per se, as it supported only unidirectional (professional to professional roles in the same or in a similar activity domain), temporary transitions.

A practical solution of managing professional staff's lack of confidence, proposed by Joseph and Nancy, was to involve them actively in decisions and implementation. Both Joseph and Nancy stressed the importance for professional staff not to be discouraged by the initial (potential) shortage of skills, and for managers to encourage those who were ready to take up new challenges to do so:

> If you can get their trust by acknowledging the good work that they're doing, they'll work well for you. Give them the opportunity to self-nominate, and, if they don't [do so], suggest that this might be something that they might want to be interested in [doing]. (***Joseph***)

The idea of *volunteering* people for taking initiatives was introduced by Joseph as temporary boundary crossing: "bringing people across" into collaborative projects while enabling them to remain within their activity domain. He gave an example of library staff contributing to a range of research projects ("Bring them across – they are not working what I'd say **in research** - but they're actually working to create a research culture and products").

Nancy, in reflecting on her experience working with professional staff in Singapore, felt disappointed for professional staff who did not take initiatives as much as they could do so. She linked the lack of career progression opportunities in Singapore and limited staff rewards with the low uptake of initiatives. She admitted that her views may have been different from those of professional staff. Professional staff, in contrast to many academic staff's opinions, believed that the acknowledgement for taking up new initiatives did not have to be explicit. Norah reflected on this by saying that she would like to have

"acknowledgement of the fact I was involved. That's all!", or "Just low key, one-on-one acknowledgement – just an acknowledgement of an involvement, and it could be from anybody"). Kim's desire for acknowledgement or recognition was expressed in a similar vein:

> As the people around me know what I'm doing and they're approving what I'm doing, I'm happy; I don't need more recognition. It's just like an email, "Hey, good thinking!" or "Well done!" At least it's an acknowledgement, you know? It doesn't matter if you don't get a pay rise; [that's] not important. So long as the people I [am] working with are aware I'm trying to help them, and they say, "Thanks." (***Kim***)

Various mechanisms were pointed out (those used in TU Singapore, in particular), which involved tangible financial rewards and trying new roles while keeping their substantive positions. These mechanisms were believed to promote professional staff initiative taking. There was no consensus among the participants as to whether those schemes were sufficient for professional staff to feel motivated to cross boundaries and to work collaboratively across teams and campuses. Professional staff believed that an understated approach to acknowledging their contribution would be a more meaningful strategy for increasing professional staff initiative taking, collaborating and working across boundaries.

Summary of findings for *first order* themes' development.

In the course of this collaborative project between academic and professional staff, all four dialogical learning mechanisms, and related to these mechanisms processes of *identification*, *coordination, reflection* and *transformation*, were activated at various project stages and at various levels. The learning potential of crossing various boundaries was realised initially through the processes of identification: through simultaneously *othering* along various dimensions of culture, and finding legitimate ways for diverse professional identities to co-exist. Learning at coordination stage, primarily at the interpersonal level,

between the teams or individuals operating at two country campuses manifested through deficiencies in critical evaluation and translation of research management practices between the two countries. Instead, the learning progressed straight to practice *routinisation*, which was evidenced through the straight adoption of Australian practices.

Project participants were actively reflecting on and reassessing their new roles and professional identities in the light of the roles and identities of their colleagues, respectively, in Singapore and in Australia. Cultural *transformation*, although making a slow and problematic start, developed through the collegial efforts of both Australian and Singaporean participants.

Bringing the "right" people who contributed genuinely using their expertise and networking with the industry stakeholders from the research community in Singapore had a boundary transcending effect on institutional and intrapersonal levels. It appeared that providing professional staff with additional skills, training or qualifications may not have been sufficient to get them involved in collaborative activities, especially those in more junior level positions. It was suggested that the provision of autonomy through the explicit communication of trust in people's abilities was a more appropriate solution to this challenge.

Competence was seen as a prerequisite by professional staff for entering collaboration on the project, whereas academics perceived competence as something that could be increased or enhanced through work. The environment that providing autonomy, confidence in staff and their abilities, and subtle forms of appreciation for and acknowledgement of their initiative-taking was perceived as important for staff collaboration.

5.4.5 Tropical University (Singapore) Case Two: "It was only a very small project" but a huge step towards reaffirming collaboration: A successful case study of interaction and collaboration between colleagues from different campuses

Facts: ***Narrative Case Summary.***

This was an exemplar of a successful cross-cultural and cross-campus collaboration between academic and professional staff working within one university and across two campuses that were different in their respective paces of operations and organisational culture. The project goal was to create a new Psychology program to help to capture the Singapore market by designing an academically attractive and financially viable program for students.

It was a small-scale and relatively straightforward project, and yet there were challenges that project participants had to navigate. Time, especially in Singapore's fast-paced, competitive environment, was of the essence, and the new program had to be launched within short timeframes. Another challenge was a convoluted system of dual program accreditation. Technology often presented a challenge in trying to connect staff across distance and time.

The project developed organically, and staff were given autonomy to use space and time to innovate to design a new program. They all believed that a flexible project structure was one of the elements of successful collaboration for a small-scale project like this one. There was a clear focus on the agenda of innovation as opposed to the agenda of control. It was easy to attract people with the right skills, but far more difficult to ensure that people possessed the right cross-boundary mindset. The most critical capability, as the project leader believed, was a global mindset – an ability to see and articulate project benefits for the whole organisation.

Collaboration was treated equally seriously by staff in Singapore and in Australia. Its value and importance were articulated on personal, professional and organisational levels. For professional staff to be willing to participate in cross-boundary collaborative activities, they needed to be intrinsically motivated, or to have certain personalities and aspirations that shaped predisposition, or an inherent trait for collective work. The importance of organisational culture and leadership that valued what those professional staff brought to the table was considered to be critical for staff collaboration to flourish.

Possibilities and challenges.

This project was the only example that was classified as an *integrated* university *third space*, as course development and accreditation were recognised by TU as a core activity embedded in its organisational and social fabric. Four participants – two professional (Samantha and Henry) and two academic (Paul and Nina) staff located in Australia (Samantha) and in Singapore (Paul, Nina and Henry) – discussed the topics of staff cross-campus and within-campus collaboration.

The nature of this project, being small-scale, organically conceived and developed without a formalised plan or a significant management effort, presented simultaneously advantages and challenges. The ambiguity of boundaries was discussed explicitly by only one Singapore participant (Nina), who believed that, in order to work on collaborative cross-boundary projects, one would need to start with acknowledging boundaries. She related her comment to both national culture and the corporate environment developed within this national culture, which gave rise to various constraints of superimposing bureaucracies and regulations:

> A good start [is] to understand what can be done, [and] what cannot be done. So sometimes, particularly in Singapore, TU policy, then you have your accreditation bodies' requirements and then you have, on top of it, Singapore requirements.

The existing boundaries between professional groups, exhibited through their divergent goals, in Nina's view presented a challenge for project participants. Sales and revenues were the ultimate goals for the marketing team, as opposed to the academic quality, accreditation standards and appropriate resourcing that were the goals of the academic teams. These boundaries based on dissimilar goals were nonetheless reconciled as the project progressed.

Nina's delineation between *hard* and *soft* boundaries ("What you can do, and what your limitations are") was similar to the views expressed by Tamara, Mark, Meera, Nimala and Moss (Phase One participants), who distinguished explicitly between these two types of university boundaries. Harry (Phase One and Phase Two participant), however, perceived that none of the TU boundaries was solid as they could be shifted according to the activities, and strategic and operational needs. Moss (Phase One participant), who identified himself as working continuously across the TU boundaries, presented his understanding of the university *third space* as an equal partnership between professional and academic communities, which required staff to be aware of others' spaces, and to be constantly "marrying up [one's own] space with theirs [of the academics]" for the mutually beneficial outcomes.

The opportunities afforded by this project were presented by Paul, a senior academic who had the ultimate responsibility for this project. Paul explained that participants were brought into the project based on their functional roles and expertise. There was no specific time allocation ("There was no time allocation: time was something they had to steal from here or there, to make sure this thing happened") as the course development was part of the naturally developing, unstructured project environment, which worked well for the purpose of a small project. An expectation of launching the course at a certain time, however, provided an impetus for all to work together and fast ("It was a push in regards to trying to

get it through the approval process and the timeframes, but it was manageable", as Samantha described the deadline). In Paul's words, "Whether it was the team in Singapore or the team in Australia, they did it in their daily stride".

Despite the overarching challenges of the multi-level bureaucracies, the project environment, created by the project academic leader and the participants, which was expressed in the combination of having minimal management control and allowing autonomy for staff to explore solutions and to develop connections, provided optimal conditions for this small project to succeed:

> For all collaborative projects, because you're working with a team, it's a leadership of the team which is important. And the management functions – of course you do require management because people have to do work, and they need to manage the time and the activities – but that should be minimal because too much control might stifle things. (***Paul***)

Communication.

Boundary crossing communicative processes of *identification, coordination, reflection* and *transformation* were presented by participants as occurring at the institutional (between staff in Australia and in Singapore), interpersonal (within the project team) and intrapersonal (individual participant) levels.

BCLM: Identification.

Identification manifested primarily through participants' attempts to compare and align project expectations and regulatory constraints between Australia and Singapore, which was noted by Singapore participants ("The other challenge would be probably getting an alignment between expectation and understanding of various bodies in Australia, various Committees and the requirements in Singapore", as Paul commented on the subject).

At the institutional level, similarly to Phase One participants (e.g., Anika and Meera), Paul, Henry and Nina referred to the constraints of the local legislative requirements, which led at times to cross-campus tensions owing to insufficient recognition of the Singapore context by the Australian side. In Paul's opinion, "In Australia, there's no impact of CPE's [Committee for Private Education] operations, and there is very little recognition that the CPE's requirements must be considered when programs are being planned". The uniqueness of TU Singapore's position as a corporate educational provider with a corporate fee structure and aligned human resource management practices was mentioned as another boundary, causing occasional inability of one campus staff member to reconcile the identification of her practices in relation to those of another site:

> We [in TU Singapore] are not with a tenured position, so we are very different. If you compare to another university [in Singapore], you have to consider, what is appropriate or not, because you can be fired. Although you are comparing TU Australia and TU Singapore, we are different, and [it] is not only the country – the whole thing, your working conditions are different. (***Nina***)

At the intrapersonal level, Henry's identification was reflected in his legitimisation of various professional groups' practices while acknowledging them as being separate ("From a marketing perspective, having said that, I'm not a trained psychologist, I'm giving the feedback from a market standpoint, but of course I defer for the real academic components to the academics").

Nina reframed her learning through identification as glocalisation in action – i.e., the local responses to global (in this case, imposed and regulated by TU Australia) impacts ("When we make decisions internally – of course Australia has to know – but, at the end of the day, we have to run it here"). Comparisons between the pace of development in Australia vs. Singapore was another *othering* at identification to which participants in Singapore

alluded (“Asian time where change is so rapid, you have to be very responsive, so time becomes a very important quantity”, as Paul commented). These comparisons may be perceived as an attempt at legitimising varied practices’ co-existence. Participants, by stating the differences between the two countries, were promoting the idea that collaboration across cultures was not about overcoming or transcending cultural boundaries, but rather about confirming that boundaries existed legitimately and needed to be respected by all collaborating communities (a similar evocation was expressed by Meera, Phase One participant).

BCLM: Coordination.

The pursuit of common goals, continuous team efforts and effective collaboration were pointed out by Samantha as success factors at inter-campus coordination level:

> That’s when we got together to have a look at how we could bring this together, what’s the best way to do that in order to be able to meet our accreditation requirements, but also being efficient. It was definitely down to a team effort, particularly right up until the end of having to provide the information to Singapore for them to be able to write the application for the CPE registration.

At the intrapersonal level, Nina pursued coordination through seeking the right people to align or modify her participatory practices as a new TU Singapore academic leader with people at both TU Australia and TU Singapore (“It’s about knowing who you have to talk to, and just be direct and ask”).

Efforts at the translation of different practices between the academic team and the marketing team were not entirely successful at the interim project stage, and Nina commented that, although the relationships were good, she felt that the two teams were pursuing dissimilar goals. Therefore, despite the commonality of the ultimate goal having

been acknowledged, the coordinating phase may have presented an interpersonal challenge for these two teams.

At the institutional (cross-campus) level, navigating ambiguous boundaries was done with professionalism through, as Samantha suggested, explaining and presenting various solutions for discussion. The relationships that had been built prior to this project were claimed by staff (in Phase One and this project's participants) to be conducive to the routinisation of practices: the stronger the previously built relationships, the easier that it was to take part in later collaborative projects. Harry suggested: "I met them [Australian staff and academics on the Singapore campus] before. I suppose, once you've actually worked with someone, it's a little bit different, the relation….". Samantha's similar sentiment was: "I've been able to maintain some of those contacts and those relationships; we've developed a really good working relationship since I've come on board in 2015".

BCLM: Reflection.

Several perspective-taking reflections involved insights about the benefits and conditions of successful collaboration:

> It's a self-awareness thing: what you can do, the synergistic benefits of a team are much higher than an individual effort. This project increased my confidence in the system, and the fact that, if you get the right people in the team, it'll be easier to have such projects in the future. (***Paul***)

Paul elaborated how working on the project assisted him in reassessing his preconceptions about one team member ("Assumptions that were clarified, when I was working through the process, I realised that they are the most helpful individual; whatever assumptions I had about them in the past were ill-found[ed]").

Nina's reflection on her recently crossing the role boundary, having changed from an academic to an academic leader position, contained references to "stress", "uncertainty" and

"culture change". Role boundary crossing and new learning through working on this project were associated for Nina with feelings of discomfort and destabilisation. Temporary loss of competence, or perception thereof, was interpreted by Nina as an ambiguous state, from which she attempted to escape by gaining the knowledge required for her new role.

Samantha's and Henry's perspective-taking presented listening as a core attribute in building collaborative relationships through an appreciation of diversity:

> It's always trying to really listen and get into the nitty gritty of why they might have different point[s] of view, and just find a solution that is going to meet their needs, keeping that communication and having an appreciation of where they're coming from. (***Samantha***)

Henry expressed very similar ideas about the importance of listening ("You always need to value other people's feedback. So listening is a core attribute, so don't always just [do] talking and talking; you've got to actually also listen – listen first and then talk").

Nina's appreciation of diversity was expressed through having "different eyes looking at the same document, and giving different feedback". The importance of relationship building based on connections, respect and appreciation of diversity was emphasised by all participants, but presented by Singapore staff as cultural practice that was particularly important for the Singapore context ("You do foster and develop those relationships, which is important, very important for us", as Henry noted).

BCLM: Transformation.

Transformation of practices through collaboration went through several stages and across levels. At the intrapersonal level, Paul reflected on his experience of holding certain preconceptions, which could have led to confrontation, as there was evidence of a starting discontinuity grounded in different practices across two sites. By recognising a shared problem space (a concern for making a new program compliant with multi-level accreditation

requirements), each party came to respect the other's position. They jointly explored options and managed to achieve their desired outcomes. Meaningful and acceptable solutions preserved the uniqueness (the specific requirements of both Australian and Singapore accreditation requirements, and those of the Singapore student market) of intersecting and interacting spaces and actors. As a result, through a "beneficial synergistic effort of the whole team" (Paul), their collaboration delivered genuine and successful transformation. This particular example presented an example of a staged transformation through cross-boundary collaboration. A boundary between two sites' practices was reconceptualised as a dialogical device that led to the successful achievement of results: participants had to recognise at first the problematic nature of the discontinuities in order to search for solutions through collaboration.

The unanimously positive comments about the values of collaboration were a testament to the appreciation of the teamwork approach to projects despite recognising the occasionally challenging pathways that collaboration can take. For Paul, collaboration was about harnessing the diversity:

> I am a very strong believer of that [importance of collaboration], and I see that's the only way: you can get things done, because if anybody works individually you may be able to make some small progress, but, if you want to achieve big things, it has to be [a] joint effort.

Samantha's view confirmed Paul's and the Phase One participants' (Harry, Tamara, Tom) opinions that the collaboration was:

> …the energy from other people, bouncing ideas from one another, and it's also always, when you might have a tough problem to tackle and you've got other people to take that on together, sometimes it doesn't seem so burdensome.

Henry, being an emphatically strong advocate for collaboration, provided more abstract elaborations than concrete examples ("We do collaborate here, at this campus; we **really** do believe in collaboration"). He further discussed the importance of the cross-functional, cross-campus and cross-cultural collaboration, promoting the value of "being able to influence decisions that impact [on] my area". He also talked about an arrangement practised in Singapore, whereby staff shared performance targets with their team or their manager, thus forcing people to collaborate. This "induced" collaboration appeared to be a specific feature of TU Singapore owing to the structure of the corporate group-based reward scheme, which was not a practice in Australia, where no financial rewards were offered to staff beyond their Australian industrial award salaries.

By referring to this project as "a successful case study of interaction and collaboration between colleagues of different campuses and how we can get some decisions pretty quick[ly]", Paul reiterated the criticality of the shared ownership of the outcomes of this transformative collaboration. By embracing the challenges of negotiating unique intersecting practices, the project participants consequently found meaningful and practical solutions for all parties, thus fully utilising the cross-boundary university *third space* environment that was afforded to them.

Values.

Connotations of national and organisational culture manifested in participants' accounts through drawing parallels between intersecting sites and their respective practices. From the organisational culture perspective, Samantha, as well as Phase One participants familiar with the operations of the Division where Samantha worked, reflected on the dialogical practices endorsed by the Divisional leaders and occurring routinely between professional and academic staff, which were endorsed by Grace (Phase One participant, from the same Division), who was categorical in saying that "all contributions are equal", and that

all staff needed to be treated based on the value of their expertise and of their contributions to work or to projects:

> As long as you've got an environment that allows people to value and recognise that [equal contribution]: don't judge a book by its cover [perpetuating] those unconscious biases. Don't see somebody who is in the tech overalls and [does] not understand: that's the work they're doing now; that's not a limit to their expertise. (***Grace***)

In relation to specific values associated with cultural diversity, Samantha, referring to her experience and her previously developed relationships with Singapore staff, appreciated the benefit of intercultural learning ("I think just learning from their [Singapore] way; their working culture is a little different to what we got here in Australia").

In addition to the previously discussed super-imposition of various types of culture (national culture overlain on a corporate organisational framework), which manifested in expressed differences between two countries and two university sites' operations, Nina reflected on the overarching nature of collectivism in Singapore:

> With Singapore, if you talk about collectivism, [it] is very funny because if you think we are in a collectivistic society, but Singapore is the less – I mean, I come from [European country of origin] – where **we** are more collectivistic than in Singapore.

Nina presented the notion of the respect/disrespect dichotomy as a cornerstone of Singaporean workplace collectivism ("I will feel here is like you don't **disrespect**: the idea of respect and disrespect is very, very strong").

Discussing boundaries imposed by the organisational environment, Nina, from her position of an insider/outsider, elaborated the nature of hierarchical relationships ("flat hierarchy") at the Singapore campus compared with the Australian campus, and how reciprocal trust between the leader and the staff was enacted.

Differentiating on the cultural dimension of collectivism/individualism, it was noteworthy how the value of collaboration was portrayed by Singaporean and Australian participants. Although the importance of working together towards common goals was discussed explicitly by all project participants, the level of acknowledgement of the team participation and the contribution to the project appeared to be stronger among the Australian staff. As Samantha mentioned: “It was definitely down to a team effort, particularly right up until the end of having to provide the information to Singapore for them to be able to write the application for the CPE registration”. In comparison, Henry commented: “I did that in conjunction with some other people, but I had a key role in that”. These observations may need to be reviewed in the context of espoused vs. enacted values of teamwork and collaboration, and whether a team-based financial bonus scheme in TU Singapore may have had an impact on the way that participants responded to the question about collaborative work.

Singaporean participants (Paul, Henry and Nina) discussed the value of diversity to a greater extent than their Australian colleagues, which was not surprising given the highly diverse context of Singapore culture reflected in the campus’s organisational dynamics. Diversity was conceptualised as a valuable resource within collaboration that needed to be activated through a conscientious effort of “awareness” and “being mindful”. Paul elaborated that: “Awareness is crucial, being mindful of one another, being mindful of differences and how the differences can act as strengths”. Diversity was also perceived as both emotive and pragmatic elements of team relationships (“Diversity is very helpful, if you're looking at collaborative work, if you’re looking at team-based work, because then you can maximise the benefits of diversity”, as Paul commented).

Three other project participants promoted equally strongly the value and strength in the diversity of students, stakeholders and teams (Henry), and the benefits of having

alternative ways of thinking and learning from these perspectives (Nina and Samantha). Overall, the multivoicedness afforded by diversity, notwithstanding some variations on cultural dimensions, was seen by project participants as an integral part of, and a resource for, fruitful collaborative relationships.

Actors: *Basic Psychological Needs*.

Autonomy.

Since the actual work of researching the market and developing a new course for accreditation was within the job scope of respective team members, autonomy therefore did not manifest through staff's ability to choose projects, but rather it was aligned with people's ability to exercise freedom in relation to time and space for collaborative project development across campuses. For professional staff, autonomy was also closely connected with competence and reflected in the way that people felt that their opinions about the course development were considered, and that their advice was listened to throughout the whole project. Being able to provide competent advice, thus influencing decisions, was equally important for Samantha and for Henry:

> It was up to me to provide advice and set the timeframes, as to what solution we're going to go with, [and] ultimately having a hand in saying, "This is the solution I really think we need to go with". (***Samantha***)

Samantha's perspective on the environment that supported her autonomy was framed around having a supportive manager who encouraged her to work across boundaries. She mentioned: "I'm very fortunate to have a great manager who really enables me to do that, and I think I've really taken the lead on that".

Henry's view on autonomy was somewhat controversial: he appeared to value the ability to make independent decisions, and yet he acknowledged that there were certain factors outside his control that required him to implement the "imposed" decisions:

> In those sort of instances [“top-down” decisions], my approach is quite simple, and that is that we make do with the best that we’ve got, so then **my** role is to then persuade **my** team that, “Let’s make the best with what we’ve got, and let’s **do** it, make it happen”.

At a certain level, autonomy appeared to be a pragmatic (related to one’s sphere of control and yielding certain professional benefits) rather than an essential need for Henry. Later in the interview, however, Harry commented on the importance of inclusive consultation, which appeared to be significant for him (“If my opinion had not been sought, I would not have been very happy”). He argued that decisions made without including his opinion would have constituted losing his autonomy and diminishing his investment in the project:

> That’s what I mean by collaboration: if they **hadn’t** invited me, I wouldn’t have been as happy, I’m sure. They basically decided something, and something gets pushed to me, then, of course, how do you get the buy-in? It would be more difficult. I value collaboration, but not only that: I value being able to influence decisions that impact [on] my area.

Henry’s comments on the value of collaboration and autonomy may, to some extent, be a manifestation of a social desirability bias. He desired to come across as a collegial team player, whereas what he may actually have been motivated and driven by was the respect for his decision-making authority, his ability to exercise influence (“[B]eing able to think, and have an influence”) and his ability to choose projects aligned with his performance targets. Henry’s responses also reflected a high degree of respect for authority and alignment with Chinese social orientation (concept of face):

> In my role, taking on ad hoc projects outside my normal job is quite normal, and the minute that I take on such projects my firm belief is always to do the best that we can,

> and make sure it is a success. I really don't accept failure because, in such projects, I believe it is within our control.

Henry denied, however, that his perspective on the importance of success and having no tolerance for failures were related to cultural attributions, and instead he explained it with reference to his personality trait: "I don't think necessarily maybe culturally, but that's just me. I always like to do the best that I can in everything that I do, strive for excellence". Henry's and Samantha's examples, being different on the cultural dimension, provided insights into how autonomy was interpreted and valued by professional staff working together across boundaries.

Competence.

Participants reflected on the concept of competence, the importance of collective competence in particular, and how the application of one's competence may lead to a deeper work satisfaction. In addition, participants deliberated on competence of a different order (cross-boundary mindset), and how it manifested its criticality in this project.

Paul commented that he possessed all the essential skills to lead the project, but that he needed to rely on the "team effort" for implementation. Nina, unlike Paul, was new to her academic leadership role, and she was challenged by the volume and complexity of corporate knowledge that was needed for project development. She admitted that she was "still learning". Samantha, on the other hand, similarly to Paul, claimed that she possessed full expertise to complete this fully integrated project successfully:

> This particular project is part of my role, and there's even more things where I've had like professional accreditation that I've worked on….When we get the submission, we get good feedback and we get accredited; that's all part of my job.

Paul introduced the notion of the functional collective expertise, which he defined as a set of competencies needed to be assembled through collaboration to achieve goals (in

Paul's words, "We all had our own functional expertise, and that functional expertise put together helped in getting the outcomes"). Samantha explained how possessing the expertise not only contributed to the project success, but also made her satisfied with working on the project ("I enjoyed the project. It was fun to do. It's always great when someone comes to you with something and you can say, 'Yes, I'm able to help you with this'").

The importance of possessing cross-boundary competence or a global mindset ("higher order thinking" and "awareness", in Paul's words) was confirmed by Samantha's and Henry's interpretations:

> If we know that we need to get up a new course or a new major or something because it's going to equal students enrolling in subjects, at the end of the day, that equals dollars for TU, so we do what we can. (***Samantha***)

Henry saw the importance of the project through a triple lens: as part of his immediate responsibility; through a joint performance target with his manager; and as an overall achievement for the TU Singapore. His enactment of the cross-boundary skill was in relationship building ("[P]art of my job is relationship building"). He appeared to be more internally (Singapore campus) focused compared with other participants ("It reinforces how important it is to be able to develop the relationships so that you can implement things that would be successful for this campus"). Paul also discussed the significance of having not only the "right people", but also "highly motivated" people to take part in collaboration: "If you find highly motivated individual[s], then, of course, even without proper resourcing things can get by".

This idea expressed by Paul that project funding was a helpful but not an essential element of collaboration was confirmed by some (e.g., Harry and Tom), and was contested by other (e.g., Tamara) Phase One participants. It appeared that the human factor (i.e.,

people's diverse skills, their collaborative and global mindset, and their motivation to be part of a larger university development) had a higher value than other factors.

Relatedness.

The value of collective expertise was closely aligned with knowing the "right people" to be able to connect with them to work on the projects. This "knowing" was interpreted through the need for connection with and relatedness to others that was perceived as having precedence over the need for competence in the context of collaborative projects. Samantha reflected on how important it was for her to be able to rely on previously formed relationships with Singapore staff, as well as with her managers and academic colleagues in Australia:

> I feel I've got real good working relationship[s] with them [Singapore staff] that's been developed over many years. I've been able to maintain some of those contacts and those relationships. Within the staff within [the Division], I feel, we've developed a really good working relationship.

Reputation built through the years was viewed as an integral part of the professional relationship, which sustained connectedness and provided a premise for further collaborative opportunities (similarly to Tamara's [Phase One participant] opinion).

Recognition for professional staff and recommendations for future collaboration.

Initiative taking by professional staff and opportunity provision for staff were viewed as two sides of a coin, depending on whether participants treated opportunity as "being given to staff" (lack of agency), or as an "initiative-taking opportunity" (manifestation of agency). Although participants commented on the overall lack of opportunities for professional staff in TU (across Phase One and this case's participants), Samantha and Henry both confirmed Paul's insight that an initiative and an opportunity needed to be interpreted in a broader sense: for example, as building stronger cross-cultural collegial relationships ("probably an

opportunity to work again with the Singapore staff, to keep my name there and say, ‘Hey, I’m still here if you need help with anything’, and just continuing to build relationships with them”, as Samantha explained her viewpoint).

Nina’s view was not dissimilar to Francesca’s (Phase One): that taking initiative to participate in collaborative projects may be dependent on one’s personality, or what Nina referred to as one’s “ambition”. Initiative taking or opportunity seeking was therefore linked with a larger discussion of staff motivations. Motivations of academic staff working on this project, including the “sense of fulfilment”, the idea that “you’ve done something good” and working together creating a “positive thing” (Paul), were similar to those expressed by professional staff. Having “an influence” and “being able to introduce something new” (Henry); being able to contribute to the project and be “trusted to provide sound advice”, which was “listened to” and valued as an “equal contribution”, as well as being “seen as colleagues at the table” together with academic staff (Samantha) were among those mentioned by professional staff at both locations.

Discussing the rate of initiative uptake, Henry put forward a contrasting view to that of Nancy (Phase One), who expressed concerns about how few initiatives were being taken by professional staff in Singapore. Henry claimed that Singapore professional staff both took initiatives and created opportunities themselves, while displaying commitment to seeing those initiatives through, which he considered to be the foundation of TU Singapore’s success:

> That’s why the Singapore campus has been so successful: the initiative that we take, and the fact that - at times we take initiative, at times we are given projects – the minute we are given a project, wholeheartedly we commit.

Professional staff initiative taking was discussed by academics in the context of professional staff confidence. Paul explained that professional staff, compared with academics, at times tended to "under-sell" themselves:

> I sincerely believe that professional staff – they do much more – they undersell themselves. They are an integral part of the organisation, but somehow, because [an] education institution is all about professors, some groups tend to get marginalised, if not ignored.

Professional staff themselves tended to downplay the importance of their contribution to the project, which was aligned with Paul's notion of their "under-selling" their contributions. As Samantha elaborated: "I am kind of the first 'go to' point, so I was the one providing the admin[istrative] support and the curriculum management side of things. I guess I was just an enabler".

Paul, similarly to Phase One participants' views (e.g., Mark, Harry and Grace), believed that TU leaders needed to create a safe environment for professional staff to be willing to take initiatives, putting forward various ideas without being concerned about failures, thus building staff confidence. It was also proposed that managers needed to know about their staff's capabilities and skills in order to encourage the "right" staff to take part in collaboration (e.g., Samantha and Paul).

Nominating or volunteering professional staff by managers for various projects was discussed in light of staff's agency. Nina's opinion was somewhat different from Paul's: although she did not deny the importance of initiative taking, she emphasised that willingness to take initiative was aligned with an individual's internal drive or ambition, and that forcing staff to collaborate may not be beneficial. In this project, however, there were examples provided by staff of the equally successful outcomes generated when professional staff exercised autonomy in taking initiative, and when they joined a project being nominated by

their manager. Samantha drew satisfaction from autonomous boundary crossing as well as when being “pushed” to cross the boundaries of her role, learning new things and having to overcome initial hesitation or, potentially, lack of confidence. She commented: “It might have been working in a different area, or that you might not have done before. So you kind of pushed yourself outside your boundaries or outside of your comfort zone”. And then further:

> I think, if I’m choosing to do it, it’s okay, but then again even when I’m asked to do something, that I really don’t want to do, you get in and do it and you feel like you’ve accomplished something afterwards, particularly if you were a little bit concerned or worried about doing it.

In relation to recognition or acknowledgement for professional staff, providing monetary bonuses to staff was a “very Singaporean” way of showing appreciation (Paul). It may therefore be construed that financial rewards in Singapore played a certain role in stimulating or promoting staff members’ motivations, despite the fact that the interviewed professional staff did not mention financial rewards as being important to them.

Samantha expressed that recognition for her meant acknowledging the unique and equally valuable contribution that professional staff brought to collaborative projects through enabling them to express their views. For Henry, it was his own reputation reflected through the success of the event (project) that was a meaningful and relevant acknowledgement of his efforts, which was an equivalent of Samantha’s intrinsic motivation: “For me, congratulations are not a big deal. I think for me [it’s] the event itself, so that it goes well”.

Samantha’s view of being publicly acknowledged was not dissimilar to those of other project participants: it was always nice to receive a “thank you” from the manager, but it was not necessary, as people felt that they were being thanked for doing their job. It is also noteworthy that professional staff in both locations shied away from individual recognition, and instead strongly advocated recognition for their teams.

Summary of findings for *first order* themes' development.

In this small-scale and naturally developed *integrated* university *third space* project, the super-imposition of multiple cultural layers (professional group, organisational and national) produced ambiguous boundary constructions. In order to collaborate successfully across boundaries, professional staff needed to possess boundary-crossing awareness as well as a global (as opposed to a narrowly focused) mindset. Those two critical skills were deemed equally important as – if not more important than – a core functional expertise. Particularly significant for this cross-cultural, two-campus project were the professional relationships built between participants prior to the project start, which improved communication and relatedness throughout the project.

The Singapore campus being in a unique position as a corporate educational provider and a part of a large Australian public university occasionally led to an inability to reconcile the two countries' approaches to identification. The overlay of national and organisational cultural determinants created difficulties between TU Singapore and TU Australia participants in legitimising the co-existence of their individual practices.

Participants, when reflecting on the success of this collaboration, commented on the synergistic benefit of a team effort, collective functional expertise, the appreciation of multi-dimensional diversity and continuous reflection on professional roles and practices. An example of transformative practices occurred through moving from an initial discontinuity of practices to the recognition of the shared problematic space and, ultimately, to the convergence of practices in a collaborative search for meaningful and practical solutions.

There were cultural variations in meaning and values assigned to collaboration, autonomy and diversity. Finally, initiative taking by professional staff, as well as the provision of opportunities for collaboration and project work, were compared through the lens of agency – i.e., it was agreed to be important for professional staff to be actively taking

initiatives, as well as for the leaders of TU to provide environments conducive to collaboration. It was identified that, for many professional staff, an intrinsic motivation (originated from within the project participation and the ability to make a difference through helping others using competence and expertise) was more important than formal recognition, public acknowledgement or tangible rewards.

5.5 Conclusion about the developed *first order* themes (Phase One and Phase Two)

The detailed discussions of findings from each of the explored cases and how those findings related to those from Phase One having been presented, this concluding section lists the developed *first order* themes from the summaries of the findings located at the end of each preceding subsection (5.4.1 - 5.4.5). The following *first order* themes were developed as a result of the cross-case, cross-phase analysis of the summarised findings.

***First order* themes from TUA, Case #1.**

1. Staff innovation and collaboration frequently receive no prioritisation or provision of creative space-time; the cross-boundary collaborative efforts of staff are being largely under-acknowledged or under-rewarded. A culture of collaboration therefore needs to be promoted at TU through creating both physical and notional spaces.
2. Staff with the required expert knowledge or skills are often being discovered through accidental ways, which makes is difficult to find and connect with people for collaboration. This is problematic when an increasingly high value is placed by the funding organisations on teams with the right combination of people.
3. Translation is becoming an essential cross-boundary capability required for innovation and collaboration in order to connect multiple sites of practice.
4. Autonomy for some professional staff is important in the context of motivation and job satisfaction, as it promotes their sense of being useful, efficient and productive.

Others view autonomy, through pragmatic and context-dependent lens, as being able to exercise choice in selecting the projects in which to take part.

***First order* themes from TUA, Case #2.**

1. In pursuit of consistency across collaborative spaces, it is possible to thwart professional staff autonomy, relatedness and, potentially, new skills' acquisition, thus diminishing the value of diversity and collaborative cross-boundary relationships.
2. Bringing a large-scale, semi-autonomous, complex, *third space* project back "to the fold" often involves searching for communicative connections between diverse practices through the navigation of ambiguous project and TU boundaries.
3. Unlike many academics, professional staff at times develop a competence vs. confidence dissonance, which may prevent them from taking part in TU collaborative projects.
4. TU does not always provide sufficient opportunities and conditions conducive to professional staff working across boundaries.

***First order* themes from TUA, Case #3.**

1. Autonomy for professional staff means having control of the daily work activities and career trajectories, working under conditions that unleash creative expression, energy and passion, and that provide a sense of ownership of both the work process and its outcomes.
2. An organic and fluid project environment that can be afforded by "light touch", non-hierarchical and talent nurturing leadership leads to creativity, innovation, and generative communication and collaboration between staff.
3. Professional staff working on collaborative projects are driven and motivated not only by the project outcomes, but also by the process itself, as it provides personal and professional growth, and it helps staff to feel passionate about their contributions. The

main source of professional staff inspiration is "delivering useful projects that make a difference".

4. Cross-boundary skills and capabilities encompass high level translational communication skills and other non-technical expertise (such as creativity) that are especially important for collaborative projects focused on the user experience.
5. Multiple organisational boundaries lead to disconnectedness between people and professional groups that, in turn, leads to a diminished awareness of professional staff's expertise, and ultimately to their lack of involvement in collaboration.

***First order* themes from TUS, Case #1.**

1. Generalisations of cultural differences may perpetuate *othering* (*us/them* dualism) at the stage of identification or even lead to failure of identifying and recognising dissimilar perspectives, identities or practices, which may impact on staff relationships and professional practices on all three levels (institutional, interpersonal and intrapersonal).
2. Staff activation and energy management are the leader's critical capabilities that may need to be prioritised for improving relatedness and embedding autonomy in cross-boundary collaboration.
3. Confidence and competence within professional staff are at times negatively correlated: the more competent that a person is, the less confidence she or he displays in taking initiative and in her or his work in general.
4. A search for the "right" professional staff for collaborative university projects needs to start with getting to know staff, what they know and of what they are capable in order to match these skills and capabilities with projects or tasks appropriately.
5. As a reward for taking initiative or for taking part in collaboration, professional staff value acknowledgement from their managers and peers, as opposed to tangible

financial rewards or public recognition, which may be a common misconception shared by TU leaders and academics alike.

6. Academics believe that professional staff should be provided with opportunities and encouraged to partake in collaborative projects advancing or transforming their careers in meaningful ways; however, this should be based on staff individual professional aspirations.

***First order* themes from TUS, Case #2.**

1. In intercultural collaboration projects, especially where there exists a complex overlay of national and organisational cultures, staff's genuine desire for reflection (perspective-taking, in particular) assists in reaching transformative practices and in overcoming cross-boundary discontinuity.
2. Collaboration is interpreted by staff as the synergistic effort of actors through maximising diversity.
3. In collaborative projects, it is often competence and an opportunity to acquire new skills that motivate professional staff, and not necessarily public recognition or any tangible rewards.
4. For successful collaboration, a cross-boundary global mindset is often perceived as a more critical competence than functional expertise.
5. Professional staff, in contrast to many academics, at times "under-sell" themselves and underestimate the importance of their role in and contribution to the collaborative projects.

These *first order* themes are no longer organised strictly across the dimensions of the pragmatic constructivist paradigm, as each set of developed themes represented a quintessence of the findings, which came to the fore at the analysis stage. Themes may overlap with the dimensions, or more than one theme may cover one dimension if the

findings pointed to the importance of that respective dimension. The following chapter (Chapter Six) explains the process of the development of *second order* themes (synthesis) through simultaneously combining and bringing new knowledge to the analysed (*first order*) themes, while further engaging with the theoretical and conceptual frameworks within the overarching university *third space* concept.

Chapter Six – The cross-case and cross-phase synthesis: Developing *second order* themes

"Being in Singapore, it makes it really seamless to work with diverse cultures, because in Singapore we have four main cultures, or main races, like Indians, Chinese, Malays and Eurasians, so probably we are brought up that way. It seems quite seamless, this diversity, the cultural diversity." (*Meera, academic staff, Phase One*)

"We've actually got collaboration working across commercialisation, research services, design and build[ing] tech[nology]. I see more of that in the research space: it's not just the researcher doing research; it's getting [those] different groups with different skills together to come up with solutions." (*Tom, professional staff, Phase One*)

6.1. Introduction

In this chapter, *first order* themes that were developed from the analysis of Phase One and Phase Two (five cases) findings and listed in Section 5.5 of Chapter Five are further developed by combining them into *second order* themes and discussing them with the purpose of creating a new understanding of the connections among all the elements of the professional staff university *third space* cross-boundary collaboration. Synthesis and the creative recombination of meaning derived from *first order* themes represent the middle step in the three-level "*Adaptive Qualitative Research Synthesis*" (AQRS) method (see Chapter Five, Section 5.1). Similarly to the discussion of *first order* themes (see Chapter Five, Figure 5.1), the discussion of *second order* themes is organised around the key dimensions of the pragmatic constructivist paradigm (*facts, possibilities* [and *challenges*]*, values, communication* and *actors*), and is covered in Section 6.2 of this chapter. Table 6.1 provides the synthesis of examples, derived from both phases of the research, of the workings of the

four *Boundary Crossing Learning Mechanisms* (BCLMs) of *identification, coordination, reflection* and *transformation* across three levels of boundary crossing: institutional, interpersonal and intrapersonal. This section also includes Table 6.2, which displays a combined view of the diverse interpretations of the *basic psychological needs* and cross-boundary capabilities expressed by the participants across the five cases and both phases of the research.

The connection between the *basic psychological needs*' satisfaction and the transition across the three BCLMs of *identification, coordination* and *transformation*, with *reflection* being an overarching lens, is expressed through a new concept of "*Basic Organisational Needs*" comprised of: satisfying staff *basic psychological needs*; navigating or transcending the boundaries; and integrating and making use of the diversity. The visual representation of the concept (Figure 6.1), preceded by the list of the developed *second order* themes, is presented in Section 6.3. The chapter concludes (Section 6.4) with a brief reflection on how the developed *second order* themes and the new concept of "*Basic Organisational Needs*" are interpreted in the final data chapter (Chapter Seven) of the thesis.

6.2 Developing and discussing *second order* themes across the pragmatic constructivist dimensions

At this step of AQRS (*second order* themes' development), pragmatic constructivist dimensions provided a structure for discussing the combined meaning developed at the first step (developing *first order* themes) of the process and developing the new meaning (through new ideas and concepts), thus further explicating the phenomenon of the TU *third space* professional staff collaboration.

Facts: *Narrative Case Summary synopsis.*

Five university *third space* cases of professional and academic staff collaboration represented the diversity of project scale, duration and types of boundaries that staff needed

to cross in the process of their work and interactions. All five projects also differed in spatial orientation (proximity to any of the core university activity domains of teaching and learning, research and engagement), and in the trajectories of their development (i.e., the ways that they either were located within a university and were moving towards the outside, or, in reverse, were conceived and initiated from the outside and were moving towards being integrated within the university). Despite being different on many dimensions, each project's narrative case summary followed the same through-line that was developing a narrative of how professional and academic staff worked together on these projects; developed professional relationships among one another and with the wider Tropical University's (TU) community and communities outside TU; followed their individually expressed passions for creativity, innovation and success, common vision and desire to make significant change; overcame various challenges through navigating and at times transcending multilevel boundaries; and, ultimately, reached the outcome that was considered to be beneficial for TU and for staff members themselves. Professional staff in these cases of collaboration were the focus of enquiry, and their views and opinions and the elaborations of their experiences were given prominence.

Possibilities (and challenges).

The possibilities afforded by cross-boundary collaboration, which were discussed by the majority of Phase One and Phase Two (both Australian and Singaporean) participants, focused on the benefits for both the university and the staff engaged in the collaborative projects. Those benefits were articulated as:

- achieving creative and innovative outputs through capitalising on complementary and diverse skills, viewpoints and insights (e.g., Jane and Foster, TUA, Case #1; Harry, TUA, Case #3; Phase One participants);

- enabling TU to build on resource fluidity and consistency of practices (e.g., Amelia and Magda, TUA, Case #2; Kim and Norah, TUS, Case #1; Samantha, TUS, Case #2; Anika, Larry, Francesca and Mark, Phase One);
- achieving results quickly through engaging synergistic efforts (e.g., Joseph, TUS, Case #1; Paul and Henry, TUS, Case #2; Grace, Phase One);
- providing professional staff with a challenge, stretch and new learning through experience (e.g., Abby and Vera, TUA, Case #2; Kim, TUS, Case #1; Samantha, TUS, Case #2; Larry, Beryl, Tamara and Cheryl, Phase One);
- feeling energised from working with others and participating in exchanges of ideas and perspectives (e.g., Magda, TUA, Case #2; Foster and Sheldon, TUA, Case #1; Myles, TUA, Case #3; Samantha, TUS, Case #2);
- being able to achieve significant outcomes when working together vs. making lesser progress when working in isolation (e.g., Paul, TUS, Case #2);
- being able to share the burden of work challenges across team members (e.g., Samantha, TUS, Case #2);
- staying on track of the project direction through continuous validation of one's opinions and viewpoints (e.g., Henry, TUS, Case #2).

Many challenges were attributed to the hierarchical relationships either pre-existing at the institutional level (e.g., TUS, Case #1; Tom and Nancy, Phase One) or created during the project (e.g., TUA, Case #2). On many occasions, these hierarchies were perceived as being detrimental to the participants' ability to exercise autonomy, develop innovative solutions and build connections, which often led to further "delineation between the academics and the professional staff" (as expressed by Vera, TUA, Case #2). By contrast, in Singapore the hierarchical structure was often viewed as a positive force of the centralisation of power and of faster decision making (TUS, Case #1). It was accepted by some as not interfering with

successful collaborative outcomes (Phase One Singaporean participants; TUS, Cases #1 and #2).

Working across boundaries of the work scope or time allocated for a project presented equally the opportunities (for the university and for the participants) and the potential disadvantages as perceived by many participants across both phases. On the one hand, within some projects (e.g., TUA, Cases #1 and #2), experiencing an overwhelming shortage of time or staff, many had to go above, beyond and across their position descriptions and role designations in order to get the job completed, which created for professional staff a space of challenge and, similarly, of learning and innovation. Participants in other projects (e.g., TUA, Case #3; TUS, Case #1), on the other hand, acknowledged that they engaged in routine role boundary crossing, explaining that it was the nature of continuously evolving work and the requirements from staff for them to do so.

Challenges associated with the collaborative and cross-boundary efforts of professional staff were expressed primarily by TUA participants, who felt that it was very difficult to find creative space-time to connect with the right people to collaborate. TUA project participants, more so than their colleagues in Singapore, believed that, as a rule, TU did not acknowledge or recognise collaboration sufficiently as a valuable effort of multiple actors (e.g., Jane, TUA, Case #1). Singapore campus practice, unlike that in Australia, was – as explained by the participants – to set for professional staff the collaboration-based targets and the financial rewards associated with these targets. Such practice forced staff to cross boundaries working outside and beyond their main work scope.

Values.

Analysis of the values afforded by two critical elements of the university actor-world relations – diversity and culture – revealed many commonalities across the participants' views, and a number of divergent viewpoints. Diversity in its manifold interpretations was

generally perceived as a valuable resource for TU at large, and for the cross-boundary project work in particular. Diversity of staff, particularly in the light of the complementarity of their skills, ideas and insights, was interpreted as a critical element on the way towards achieving innovation and the success of the project. Understanding and reconciling diverse alternatives to established practices by the project participants were the critical aspects of the BCLM of coordination in action (Akkerman & Bakker, 2011a).

Despite demonstrating an overwhelming consensus about the positive value of diversity, the participants did not present unanimity in relation to how diversity management was enacted in reality. It appeared that diversity was managed differently at various stages of project development (e.g., TUA, Case #2), occasionally being sacrificed for the consistency of practices. A multiplicity of diversity narratives (the diversity as different ways of operating vs. the diversity agenda within the Indigenous context, for instance) was referred to as "problematic" in one participant's view (Amelia, TUA, Case #2). Other participants conceptualised diversity as a critical need: the diversification of skills, capabilities and attributes of staff was required for the success of working together across boundaries (e.g., Norah, TUS, Case #1). Diversity was also perceived as a driver of progress and innovation (e.g., Jane, TUA, Case #1), and as a factor in business sustainability, professional growth and strength (e.g., Foster, TUA, Case #1; Paul and Henry, TUS, Case #2).

Diversity was interpreted by the Singaporean participants concurrently as an emotive and as a pragmatic element of their dynamic staff relationships (e.g., Paul and Nina, TUS, Case #2). Its value was associated with collaborative (as opposed to individual) work, whereby the potential of the diverse, synergistic efforts was maximised. Staff in Singapore, who were accustomed to the diverse multicultural environment that permeated every aspect of their personal and professional lives, more so than their Australian colleagues, perceived diversity as a state of being. The Australian participants, by contrast, complained about

homogeneity, which was referred to as a characteristic of a regional university with its critical deficit of diversity.

Culture (as a second value discussed alongside diversity) was portrayed primarily as an organisational environment either conducive to staff collaboration (e.g., TUS, Case #2) or impeding the cross-boundary work (as expressed through the majority of the participants' accounts). An environment that enabled the harnessing of people's energy, valuing their unique and diverse contributions, was perceived by many participants as optimal for both the project success and work satisfaction in general. In other words, it appeared that, where diversity was seen as a source of strength, continuity of practices and identities, the project achieved a higher transformational value for TU and a higher motivation among participants (as was the case with TUA, Case #3 project). Finally, from the project structure and project management perspectives, there was a common view among the participants that a "sweet spot" (e.g., Myles and Henry, TUA, Case #3; Paul, TUS, Case #2) needed to exist on a continuum from fully structured to completely organic approaches in order for a university *third space* project to survive and succeed.

Communication.

It was generally noted that, when the participants displayed boundary-legitimising views, those boundaries at times led to a discontinuity of practices, thereby providing limited potential for project participants to make meaning of their own practices and of the practices of others. In those instances of boundary abiding, learning did not appear to have progressed beyond *identification* or *coordination* (mechanisms that focus on acknowledging differences and searching for continuity in practices and identities [Akkerman & Bakker, 2011a]). In one example of a large-scale multisite project (TUA, Case #2), the institutional practices and group identities were perceived as enduring and difficult to change. Boundary permeability in that project remained a continuing challenge, although participants made multiple attempts to

overcome barriers in order to bring a semi-autonomous project into the university's fold. By contrast, when boundaries were questioned, confronted and navigated, learning was progressing gradually towards *transformation* at all three levels (TUA, Cases #1 and #3; TUS, Cases #1 and #2). The focus was placed in these four examples on establishing a dialogue and working on building a genuine collaboration, which led ultimately to making changes and developing new practices.

In the inter-campus project examples (TUS, Cases #1 and #2), the occasional instances of *othering*, leading to some discontinuity of organisational and cultural practices, were transformed into genuine collaboration when staff from different campuses and countries were able gradually to build professional relationships and to establish a dialogue to discuss and make sense of dissimilar practices. Table 6.1 provides examples of the cross-boundary learning that occurred within the five explored projects and across Phase One and Phase Two of the research at the three levels of interaction (institutional, interpersonal and intrapersonal).

Table 6.1

Multilevel Boundary Crossing *(Akkerman & Bruining, 2016) Exemplified by the TU* Third Space *Projects and the Phase One Participants' Accounts*

Four BCLMs	Institutional level: interaction among the university's divisions, colleges or units/teams	Interpersonal level: interaction among the project participants	Intrapersonal level: participants' personal learning from the project experience and from interacting with others
Identification	TUA, Case #2: the project identified and (re)defined differences among practices – those developed on the project, the college-based practices and practices used by other organisational units (e.g., Finance, Human Resources).	TUA, Case #2: the delineation between practices and staff roles destabilised a role of one professional staff member owing to emerging tensions between staff. Professional and cultural identities became contested. It may be perceived as a case of failed identification or a failure at the level of identification.	TUA, Case #3: the initial, tentative attempts of one project participant at establishing his own professional practices and new professional identity in relation to those of the product users later developed and progressed to a genuine collaboration, leading to developing a solution that benefited all parties and the university at large.
Coordination	TUA, Case #2: the project sought the means to fit into the TU core activity space. This process presented numerous cross-boundary challenges.	TUA, Case #2: the project participants found the changes during the project growth and development challenging, which impacted on the ways that they interacted with one another, innovated and solved problems within their groups. TUS, Case #3 Singapore staff felt the need to explain on multiple occasions to their Australian colleagues the unique position of the Singapore campus (i.e., a private education provider as opposed to a public university, as was the case with the Australian campuses) in order for collaboratively created solutions to be able to meet the requirements of both sites.	TUS, Case #1: the leader of the project used the opportunity and power entrusted to him to articulate and embed his participatory leadership practices at a new site (Singapore), promoting coordination of inter-site practices and of the overarching research culture.

Four BCLMs	Institutional level: interaction among the university's divisions, colleges or units/teams	Interpersonal level: interaction among the project participants	Intrapersonal level: participants' personal learning from the project experience and from interacting with others
Reflection	TUS, Case #1: Singapore professional staff, being unsure about their role in the project and about the project itself, became gradually appreciative of the project significance. They recalibrated their own practices and became fully engaged in the project activities. TUA, Case #3: the participants commented on other professional teams (e.g., Marketing and Information Technology) and on their lack of understanding of collaborative design principles and practices, which may have caused failures to engage with solution design, thus resulting in descaling the project to be implemented by a small, incubation type team as opposed to cross-team collaboration. TUS, Cases #2 and #3 and Phase One participants' accounts: the instances of othering in cultural and organisational practices, and the attempts at legitimising various dissimilar practices, were resolved largely through building relationships and working collaboratively on projects and/or by developing solutions across geographical and cultural boundaries.	Phase One participants' accounts: dualisms of professional and academic groups were believed to have been perpetuated by the large-scale TU restructure of 2014, which continued to cause tensions, leading at times to subconscious biases and assumptions in relation to various (professional and academic) practices and identities. Boundaries were initially deconstructed, only to be immediately reconstructed around new practices and identities, thus leading to diverting the TU's course to focus on boundary preservation.	TUA, Case #2: the participants reflected on the genuine collaborative practices established at the start of the project, facilitated by the shortage of staff and by the imperative to develop rapidly the new process of training delivery. They also commented on the subsequent departure from staff collaboration, and on the shift that occurred towards hierarchical relationships. TUA, Case #3: one participant reflected on how the autonomy-supporting environment in which the project developed created his sense of autotelic experiential learning, passion and drive for developing the best solution for the end users.

Four BCLMs	Institutional level: interaction among the university's divisions, colleges or units/teams	Interpersonal level: interaction among the project participants	Intrapersonal level: participants' personal learning from the project experience and from interacting with others
Transformation	TUA, Case #3: a challenge faced by the whole TU was addressed by the project team, and the developed solution transformed TU research output consolidation practices. TUA, Case #3: applying "light touch", flexible and organic leadership to project development and the genuine user experience, inclusive approach to solution design brought about organisation-wide, technology-driven, transformative change at the whole of university level.	TUA, Case #1: two participants (one academic and one professional staff) created a uniquely new practice (a new company) when they took advantage of the emerged opportunity to commercialise a newly designed and built research device. They embraced the opportunity and collaborated through all stages of project development. A new group identity based on their new company practices was created as a result of two sets of practices that had been previously viewed as divergent.	TUA, Case #1: all three project participants benefited from the complementarity of competences and expertise of each contributing actor. The initially intersecting identities and practices of the three participants rapidly changed and transformed through the project. Two of them converged their practices (starting the business partnership together), and the third participant continued working within his work scope, apart from the other two, performing an advisory role on behalf of the university.

Actors.

As became evident from the interviews, the universal needs for *autonomy, competence* and *relatedness* (Ryan, 1995; Ryan & Deci, 2000, 2017), although interpreted differently by the participants, were nonetheless considered invariably important to be satisfied for all professional staff – regardless of culture, work level or geographical location – for successful cross-boundary collaboration. In addition, cross-boundary mindsets or capabilities were deemed equally important as – if not more important than – the core expertise for staff to possess in order to work successfully and satisfactorily across boundaries. Table 6.2 presents a consolidation of various interpretations of the *basic psychological needs* and cross-boundary capabilities expressed by the participants across the five cases and both phases of the research.

Table 6.2

Basic Psychological Needs *and Cross-boundary Capability Expression Exemplified by the TU* Third Space *Projects and the Phase One Participants' Accounts*

	Autonomy	*Competence*	*Relatedness*	Cross-boundary capabilities
TUA, Case #1	An ability to select projects based on the personal assessment of the value of potential contributions, depending on one's expertise and interest in the project; freedom in relation to time and space that one was able to allocate to the project work	Possession of skills, expertise and information (including corporate knowledge) to be able to make valuable, substantial and effective contributions to the project	Building networks and connections, and establishing and maintaining rapport with others; connections built prior to the project, and the cumulative value of connections and networks; using "goodwill" to ask for help from previously built connections	Translational skills (i.e., an ability to communicate with multiple audiences, build and nurture relationships); an understanding of one's own limitations and deficiencies in skills/expertise; entrepreneurialism; global/big picture vision
TUA, Case #2	An ability to take part voluntarily in the project; an ability to make decisions within one's sphere of influence and/or within one's geographical location	Possession of skills (technical skills, in particular), expertise and information to be able to make valuable, substantial and effective contributions to the project	Building networks and connections, and establishing and maintaining rapport with others	An ability to build rapport, communicate with multiple audiences, build and nurture relationships
TUA, Case #3	An ability to select projects based on the personal assessment of the value of potential contributions, depending on one's expertise and interest in the project; an ability to make decisions in the best interests of the end user of the product; freedom in relation to time and space to be allocated to the project	Possession of skills (information technology skills, in particular), expertise and information to be able to make valuable, substantial and effective contributions to the project; an ability to acquire skills required to perform the project tasks and to design innovative solutions	Building networks and connections, and establishing and maintaining rapport with others	Translational skills (i.e., an ability to communicate with multiple audiences, build and nurture relationships); a creativity skill; an ability to harness and guide people's energy

	Autonomy	*Competence*	*Relatedness*	Cross-boundary capabilities
TUS, Case #1	An ability to exercise power and control over the development of the project and the allocation of resources; an ability to try different jobs before committing to a new job on a continuing basis; an ability to make decisions out of their own volition – without the need to confirm with managers – while working on the project	Possession of skills, expertise and information (including corporate knowledge), or an ability to acquire these skills in a fast and effective way to be able to make valuable, substantial and effective contributions to the project	Building networks and connections, and establishing and maintaining rapport with others; an ability to reach out across the boundary of an immediate team to access the expertise of others	Change management capability; a skill of networking and an ability to gather local market intelligence; cultural awareness and cultural intelligence; an understanding of one's own limitations and deficiencies in skills/expertise; an ability to build rapport, build and nurture relationships; energy (i.e., possession of energy to be able to drive and develop a plan/project/solution and to activate energy in others)
TUS, Case #2	An ability to provide advice and to experience the feeling that one's opinions are included, considered and listened to by other project participants	Possession of skills, expertise and information (including corporate knowledge) to be able to make valuable, substantial and effective contributions to the project	Building networks and connections, and establishing and maintaining rapport with others; connections built prior to the project, and the cumulative value of connections and networks	An ability to build rapport, communicate with multiple audiences, and build and nurture relationships
Phase One participants	An ability to provide competent advice to other professional groups and to engage in partnering relationships	Possession of skills, expertise and information (including corporate knowledge) to be able to make valuable, substantial and effective contributions to the project	Building networks and connections, and establishing and maintaining rapport with others; being invited to join projects and/or collaborations based on previously earned reputations	An ability to switch between and to manage multiple professional identities in order to face multiple directions; an ability to lead (others/project) from the position of expertise vs. from the position of power; possession of both core (deep) and peripheral (broad) competence; an ability to display a broad (global) view and mindset; an ability to harness and guide people's energy

It was noted that a degree of relationship existed between the type and the scale of the university *third space* environment on the one hand and the ways that the need for *autonomy* was expressed by professional staff on the other hand. For example, within the embedded (or integrated[6]) university *third space* projects, staff treated project work as part of their standard work scope. Autonomy for them, therefore, did not manifest in their ability to decide whether to take part in the project or not. Autonomy was manifested primarily in the way that they were able to use their competence, and in how they felt that their opinions and advice were treated by other project participants and by their managers alike (e.g., TUS, Case #2).

Large-scale projects (e.g., TUS, Case #1 and TUA, Case #2) were examples of a more pragmatic view of the need for staff to exercise autonomy. It was critical to have autonomous decision making within immediate spheres of influence and control (e.g., on remote training sites and within a particular campus), whereas it was not important to possess a far-reaching autonomy in the context of the whole project or of the whole organisation.

Competence was interpreted invariably as the possession of skills, expertise and information to be able to contribute effectively to the project. Professional staff frequently referred to prerequisite technical skills and/or academic qualifications as part of the competence scope. There was a shared view that learning was never completed and continued to evolve through one's professional life (e.g., TUA, Cases #1 and #3; Phase One participants). Two unique and contrasting opinions were expressed in relation to the need for *competence*. One view was that it was not possible these days to employ university professionals with the requisite *prêt-à-porter* skills, and that a good leader needed to recognise it and to provide the environment (space and time) for staff to develop skills (e.g.,

[6] For a detailed description of the three types of university *third space* environments, see Table 2.2 in Chapter Two, Section 2.5.1.

Harry, TUA, Case #3). The other opinion was that the higher education professional was one who possessed multiple degrees and diverse interests (e.g., Tamara, Phase One).

The need for possessing *competence* at the right level and depth was expressed much more strongly by professional staff than by academics. A number of academic participants pointed out that competence was related directly to confidence, and that many professional staff lacked confidence. It was noted by the academics that, the higher the skills or expertise that a professional staff member possessed, often the less confident that she or he felt towards taking initiative or initiating collaboration (e.g., Joseph and Nancy, TUS, Case #1; Paul, TUS, Case #2). This lack of confidence, as one academic pointed out, appeared to be related to a tendency displayed by professional staff to downplay the importance of professional experience compared with the perceived high value of academic qualifications. This deficit of confidence, even in the presence of high competence, appeared to be more prevalent among junior to middle level professional staff. This phenomenon was common even in cases when professional staff's competence and expertise and their unique contribution to the project were acknowledged and praised by their managers and by the leaders of TU. For more junior professional staff, the environment fostering self-esteem and self-confidence in order to enable them to activate their competence was therefore deemed to be critical. Developing opportunities for professional staff's confidence building was not portrayed as another *basic psychological need*, but rather as a critical element of supportive and positive organisational environments enabling professional staff to develop and to demonstrate explicitly their competence through collaborative work.

A specific cross-boundary mindset, another critical element of the professional staff cross-boundary toolkit, was described as a skill of a "higher order thinking, where you are more mindful of your organisation rather than just [exercising] a siloed approach [within] your department or your division" (Paul, TUS, Case #2). Some believed that it was up to the

right leader to “activate” (Joseph, TUS, Case #1) staff energy and to engage the right mindset, and some thought that it was important for professional staff to display agency and to become activated – i.e., to use initiative and to take up challenges (e.g., Paul and Nancy, TUS, Case #2). Interestingly, the critical need for entrepreneurialism as a cross-boundary capability was mentioned by only one participant (Jane, TUA, Case #1). By contrast, the overwhelming majority of participants claimed that relationships, network-building and translational skills were critical for the success of the project. These and several other cross-boundary aptitudes appeared to be taking precedence over the core expertise that was required traditionally for successful staff collaboration.

Finally, the third *basic psychological need – relatedness* – was explored in the context of TU staff disconnectedness and of what can be done to achieve higher connectedness. Some participants described that they became involved in the project through previously built connections and through the reputation that they had earned through earlier instances of collaboration (e.g., TUA, Case #2; TUS, Case #2; and Phase One participants like Tamara and her team of librarians). By contrast, others had no prior relationships with other project participants and became involved in a project through “word of mouth” and through other accidental ways (e.g., TUA, Cases #1 and #3). Such a fortuitous way of locating professional staff who possessed the required skills and attributes was attributed to the overall disconnectedness of TU staff, which was viewed as disadvantageous. The potential risks of being disconnected were explained through the lost opportunities for both staff and TU: professional staff were not aware of the projects that may be taking place, while the project leaders were equally unaware which staff members to include in collaborations. It was not surprising that all staff commented on the low number of opportunities that existed for professional staff to take part in, as those opportunities may have been largely invisible through staff isolation and disconnectedness.

Overall, the university-wide challenge of finding professional staff with the required skills and cross-boundary mindset was identified as an increasingly conspicuous barrier to collaboration in Australia, and to a lesser degree in Singapore owing to a closer co-location of teams and the smaller size of that campus. A number of ideas was proposed to alleviate this universally disadvantageous situation, and to increase access to professional staff members' skills and capabilities. The challenge nonetheless was acknowledged as remaining unresolved.

Recognition of professional staff and recommendations for future collaboration.

Academic staff (Phase Two) and the senior leaders (Phase One) who participated in the research were concerned and disheartened by how little initiative professional staff members took – the phenomenon that they struggled to explain. Some suggested the overall lack of opportunities for professional staff to try other roles, take transitional roles or advance their careers as the potential reason for the low uptake of initiatives (e.g., Nancy, Phase One participant). Participants representing professional staff, by contrast, did not believe that the level of their initiative-taking was low, although they discussed primarily their willingness to participate in collaborative projects, as opposed to the desire to initiate such projects themselves.

Professional staff were explicit in what motivated them to take part in cross-boundary collaborative projects. These were the elements that they identified as the main drivers for them in taking part and feeling engaged and happy throughout their cross-boundary collaboration:

- the ability to make significant contributions to the project and to the wider university;
- opportunities to use their expertise to help others;
- opportunities to work with academics and with other colleagues and to develop professional networks;

- the ability to influence decisions and the project outcomes;
- opportunities for learning new skills;
- having fun while working on the project.

The examples that professional staff provided were based on their expressed need for *autonomy, competence* and *relatedness* – making contributions, using their expertise, and stretching and challenging themselves in the process.

Interestingly, the needs for *competence* and *relatedness* were expressed similarly across the Singaporean and Australian professional staff, whereas the expressions of the need for *autonomy* and motivation were different. In Singapore, a very important element of the intrinsic motivation was the success of the undertaking. Success and the reputation for staff that was derived from this success appeared to be the reward in itself for them. By contrast, in Australia many professional staff became involved through their self-endorsement of an activity. The participants were being drawn to the projects based on their appeal and novelty or on the opportunity to learn new things. The word "passion" was mentioned quite a number of times as a driver of motivation and as an inextricable element of the synergy of both their autonomy and their agency working on the project.

The differentiated expression of a need for autonomy appeared also to be related to the type of the *third space* environment in which staff worked together. For example, within the *integrated* projects (embedded in one of the three core university activity domains) (e.g., TUS, Case #2) or the aspiring for integration projects (e.g., TUA, Case #2), professional staff's need for autonomy was bounded by their immediate sphere of control, or defined by the geographical boundaries within which they operated; whereas, within the *semi-autonomous* (e.g., TUA, Case #3) or *independent* (e.g., TUA, Case #1) spaces, the need for autonomy, expressed by professional staff, was aligned more closely with the need for exercising agency (to select projects in which they felt interested or to which they were

drawn). These differences by the type of the project were further mediated by culture and by the level of staff seniority within the organisational structure.

Extrinsic motivation and, as a result, the methods of rewarding professional staff for initiative taking and for participating in projects were acknowledged as highly individual characteristics. Financial rewards, unlike what the majority of academic staff believed, were not confirmed to be the main motivating factor for professional staff in taking part in collaboration. As explained by the professional staff, an understated ("low-key") approach of expressing appreciation and acknowledgement, together with further opportunities provided to staff to take part in the university-wide projects, was what really mattered for them in order to feel motivated to work together across boundaries. It was also suggested by many professional and academic staff that professional staff needed to be rewarded according to their diverse needs and professional ambitions in order for them to feel engaged in and energised for collaboration.

6.3 The developed *second order* themes and the novel concept of "*Basic Organisational Needs*"

Based on the detailed discussion (Section 6.2) of all *first order* themes developed from the detailed exploration of the findings from the five cases and from both phases of the research, the integration of these themes resulted in the *second order* themes' development. These themes, presented below, formed the second part of the AQRS process whereby the developed themes went beyond the mere consolidation of all *first order* themes, but rather developed the second – sub-surface – layer of interpretation based on the elaborated discussion in the previous section. Similarly to the presentation of *first order* themes (see Chapter Five, Section 5.5), *second order* themes are not organised across the dimensions of the pragmatic constructivist paradigm. Instead, each theme represents a synthesised and a

new meaning, which was the result of the second step of the AQRS. The following is the presentation of all *second order* themes developed through this stage of the AQRS:

1. Collaboration and the cross-boundary work associated with collaboration increasingly occur at TU, and yet TU does not sufficiently acknowledge or recognise collaboration as a valuable effort of multiple actors.
2. Boundary-legitimising behaviours, especially within large-scale university *third space* projects, may lead to a discontinuity of practices and result in a decreased potential for learning at boundary crossing. By contrast, when boundaries are challenged and navigated, learning appears to reach genuine transformation at multiple (institutional, interpersonal and intrapersonal) levels.
3. Despite the universally acknowledged criticality of the need for diversity in the context of collaborative work, diversity management is not actualised as a seamless, unconditional and straightforward practice.
4. Organisational culture that accommodates staff *basic psychological needs*, harnesses and nurtures people's energy and recognises their unique contributions appears to be optimal for the university and for professional staff's motivation and willingness to work across boundaries.
5. Satisfaction of all three *basic psychological needs* (*autonomy, competence* and *relatedness*) is acknowledged by professional staff as essential for them to feel willing to engage in, and inclined towards, collaborative, cross-boundary work.
   Interpretations of the need for *autonomy* differ depending on the type of the *third space* environment (e.g., *integrated* vs. *autonomous*), and across cultures (Australia vs. Singapore) and across individuals, whereas *competence* and *relatedness* are expressed in a similar way across the *third space* types, cultures and individuals.

6. In collaborative projects, cross-boundary skills (relationship-building and the ability to translate one's expert knowledge for multiple audiences, in particular) and the possession of the global mindset appear to be privileged over staff's essential skills and expertise.
7. Locating professional staff with the required skills and capabilities that align with the needs of collaborative environment is becoming increasingly critical in order to maximise the value of collaboration for the university and for staff. In addition, professional staff who may not possess all the required skills at the start may need to be provided with "creative space-time" to enable them to develop these skills and capabilities.
8. Professional staff privilege the understated ways of being acknowledged and rewarded for their participation in and contributions to collaboration. This acknowledgement also encompasses being provided with further cross-boundary work opportunities. They prefer the acknowledgement to come from their managers and peers. Specific reward mechanisms, however, need to be designed and implemented in alignment with staff's diverse needs and with their professional ambitions.

The development of these eight *second order* themes led to propositioning a group of requirements or critical conditions for successful cross-boundary collaboration, which were conceptualised as "*Basic Organisational Needs*". These requirements comprised the following three parts:

- firstly, an individual approach to the satisfaction of professional staff's *basic psychological needs*. It is important to interpret the variations on the expression of these needs across different cultural and organisational sites of practice, and to support them accordingly;

- secondly, a dialogical approach applied to boundaries to facilitate learning from boundary crossing. Cultural contexts, globalisation and other factors impacting on university staff relationships within individual sites and across intercultural settings need to be considered carefully in order to maximise diversity and the learning potential of the boundary-crossing navigation;
- thirdly, the *third space* environments themselves need to support individual staff's *basic psychological needs*, including building their boundary crossing competence, and increasing connections between staff through dismantling persisting dualisms.

Satisfaction of these prerequisite conditions at the institutional, interpersonal and intrapersonal levels was perceived to be instrumental for professional staff to be inclined towards working collaboratively in the university *third space* environments. The concept of "*Basic Organisational Needs*" also revealed an important relationship between the satisfaction of these three requirements and the transition among the three BCLMs (with *reflection* being an overarching lens). This relationship is displayed schematically in Figure 6.1.

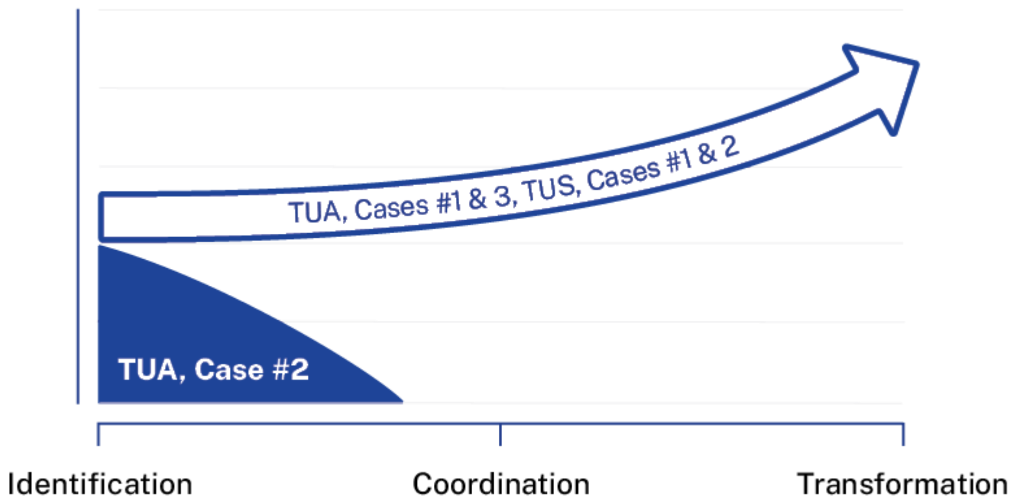

*Figure 6.1 The relationship between "*Basic Organisational Needs*"' satisfaction and the transition across the three BCLMs*

Figure 6.1 was not built to any scale. It merely provides a representation of the relationship – evidenced through the explored university *third space* project cases – between the "*Basic Organisational Needs*"' satisfaction and the ways that collaborative projects transitioned from one BCLM to another, with learning being activated across the explored cases. The relationship between these two dimensions is articulated as follows: the higher that the level of "*Basic Organisational Needs*'" satisfaction appears to be, the more likely that the collaborative project was to progress from one boundary learning event to another, culminating in the transformational change of practices, relationships, and staff professional and group identities.

This visual heuristic illustrates how, against the backdrop of the improved satisfaction of *basic psychological needs*, boundary navigation and diversity integration (combined in the "*Basic Organisational Needs*" concept), professional staff transitioned from the stage of

identification to that of *coordination*, thereby achieving the stage of *transformation*. This transformation occurred on institutional, interpersonal or intrapersonal, or on all three, levels. These transformative changes resulted from the staff developing collaborative relationships and reshaping and recombining their individual or group professional identities and practices.

TUA, Case #2 is displayed separately (in a dark blue colour) from the other four cases in Figure 6.1. The illustration positions this case as being suspended between the stages of *identification* and *coordination* as this particular case appeared to have not yet achieved (at least in its first stage of project development) the maximum learning potential from staff cross-boundary work, owing to a number of components of "*Basic Organisational Needs*" not being satisfied (e.g., failure in providing staff with autonomy across all sites of practice, exacerbated by the project leaders' limited use of staff's diverse opinions and creative contributions to the project). There were also occasional failures at the stage of *identification* (of both practices and identities of individual actors), and there was an overall inability of staff to navigate successfully the boundary between the project and the university domain. It appears, therefore, that in that project the learning progressed through the stages of *identification* and, partially, of *coordination*, and not further.

It is important to clarify that *reflection* – one of the BCLMs, according to Akkerman and Bruining (2016)) – appeared to have been occurring at all levels by all participants, who commented on their learning from working on the project. *Reflection*, in contrast to the three other mechanisms (*identification, coordination* and *transformation*), was therefore considered to be an overarching lens of the cross-boundary work, rather than a "steppingstone" or a particular learning phase between any two phases. It was therefore not included in Figure 6.1.

6.4 Conclusion about the developed *second order* themes and connections with the final stage of the "*Adaptive Qualitative Research Synthesis*"

The developed eight *second order* themes presented the outcome of the second phase of the AQRS approach, not only by synthesising the knowledge derived from the analysis of *first order* themes, but also through developing the novel concept of "*Basic Organisational Needs*" and thereby integrating the three key requirements for successful cross-boundary collaboration: meeting professional staff's *basic psychological needs;* navigating or transcending boundaries; and the integrational use of diversity. The presentation of the connection between the "*Basic Organisational Needs*"' satisfaction and the progression towards transformative changes of practices, relationships and identities, which was observed while interpreting *second order* themes, helped to identify that one particular case was positioned behind four other cases on the axis of the movement through the three BCLMs, and to analyse the reasons for such a positioning. The visual display of the five cases next to one another enabled the researcher to examine more closely which elements of the "*Basic Organisational Needs*" failed to be satisfied, which resulted in the inhibited development of the cross-boundary learning from the collaborative project.

In the next chapter, *second order* themes and the developed relationship between "*Basic Organisational Needs*"' satisfaction and the three BCLMs activation are interpreted with the assistance of the third iteration of the relevant literature scan, thus completing the three-tier AQRS process of analysis, synthesis and interpretation. The new knowledge constructed as a result of the movement from analysis to synthesis and, finally, to (re)interpretation completes the contribution to answering the three research questions.

Chapter Seven – Building the "*Conceptual framework of the university* third space *professional staff cross-boundary collaboration*": *Third order* themes – interpretations and recommendations

"In the interpretive social sciences there is only interpretation." (Denzin, 2014, p. 569)

"[It's important] that we're able to bring to the relationship an engagement, a way of making sure that the people that work with us are valued and feel respected, and feel and understand that we acknowledge them for who they are and what they're bringing to this [relationship]." (*Amelia, academic staff, Phase Two, TUA, Case #2*)

7.1 Introduction: An overview of the final step of the "*Adaptive Qualitative Research Synthesis*'" application, including *third order* themes' development

This chapter describes an iterative appraisal of eight *second order* themes, which were consolidated into three main composite (*third order*) themes in relation to the relevant literature. The interpretation of these three *third order* themes was realised in the development of a novel concept "*Basic Organisational Needs*", which in turn enabled the researcher to design a "*Conceptual framework of the university* third space *professional staff cross-boundary collaboration*". This conceptual framework represented the relationships among the "*Basic Organisational Needs*'" satisfaction, the activation of the three *Boundary Crossing Learning Mechanisms* (BCLMs) of identification, coordination and transformation, and the diversity integration. A set of practical recommendations for the Tropical University (TU) professional staff and the leadership was an illustration of how the developed conceptual framework can be applied to the university operations. Enriching the TU professional practices through evidence-based and engaged research was the research

purpose. In order to achieve that purpose, there was a continuous search for revelations that would enable the movement from findings to insights (three stages of AQRS) around comprehensible and relevant new knowledge (Major & Savin-Baden, 2010b).

Following the AQRS process, the synthesised (*second order*) themes developed and discussed in Chapter Six were organised into the three composite (*third order*) themes (Table 7.1), which present a further elaboration of the constituent parts of the developed "*Basic Organisational Needs*" concept (see Chapter Six, Section 6.2).

Table 7.1

AQRS Final Stage: Grouped Second Order *Themes Translated into the Three Composite (*Third Order*) Themes Aligned with the Respective Sections in this Chapter*

Grouped *second order* themes	Composite (*third order*) themes and sub-themes: An elaboration of the "*Basic Organisational Needs*"	Corresponding sections[1]
Theme 1: Collaboration and the cross-boundary work associated with collaboration occur increasingly at TU, and yet TU does not sufficiently acknowledge or recognise collaboration as a valuable effort of multiple actors. Theme 4: Organisational culture that accommodates staff *basic psychological needs*, harnesses and nurtures people's energy, and recognises their unique contributions appears to be optimal for the university and for professional staff's motivation and willingness to work across boundaries. Theme 7: Locating professional staff with the required skills and capabilities that align with the needs of collaborative environments is becoming increasingly critical in order to maximise the value of collaboration for the university and for staff. In addition, professional staff who may not possess all the required skills at the start may need to be provided with "creative space-time" to enable them to develop these skills and capabilities.	Composite theme 1: The meaning and importance of collaboration in the university *third space* environments	Section 7.2 (elaboration of the theme); Section 7.5 (integration of the theme into the conceptual framework and the set of recommendations)

Grouped *second order* themes	Composite (*third order*) themes and sub-themes: An elaboration of the "*Basic Organisational Needs*"	Corresponding sections[1]
Theme 2: Boundary-legitimising behaviours, especially within large-scale university *third space* projects, may lead to a discontinuity of practices and result in a decreased potential for learning at boundary crossing. By contrast, when boundaries are challenged and navigated, learning appears to reach genuine transformation at multiple (institutional, interpersonal and intrapersonal) levels. Theme 3: Despite the universally acknowledged criticality of the need for diversity in the context of collaborative work, diversity management is not actualised as a seamless, unconditional and straightforward practice.	Composite theme 2: An integrative approach to boundaries Sub-theme A: Boundaries as a mechanism for learning Sub-theme B: Boundary as a marker of difference and an illuminator of diversity	Section 7.3 (elaboration of the theme); Section 7.5 (integration of the theme into the conceptual framework and the set of recommendations)
Theme 5: Satisfaction of all three *basic psychological needs (autonomy, competence* and *relatedness)* is acknowledged by professional staff as essential for them to feel willing to engage in, and inclined towards, collaborative, cross-boundary work. Interpretations of the need for autonomy differ depending on the type of the *third space* environment (e.g., *integrated vs. autonomous*), across cultures (Australia vs. Singapore) and across individuals, whereas *relatedness* and *competence* are expressed in a similar way across the *third space* types and cultures. Theme 6: In collaborative projects, cross-boundary skills (relationship-building and the ability to translate one's expert knowledge for multiple audiences, in particular) and the possession of the global mindset appear to be privileged over staff's essential skills and expertise.	Composite theme 3: *Basic psychological needs* and cross-boundary competence – their importance for the university *third space* collaboration	Section 7.4 (elaboration of the theme); Section 7.5 (integration of the theme into the conceptual framework and the set of recommendations)

Grouped *second order* themes	Composite (*third order*) themes and sub-themes: An elaboration of the "*Basic Organisational Needs*"	Corresponding sections[1]
Theme 8: Professional staff privilege the understated ways of being acknowledged and rewarded for their participation in and contributions to collaboration. This acknowledgement also encompasses being provided with further cross-boundary work opportunities. They prefer the acknowledgement to come from their managers and peers. Specific reward mechanisms, however, need to be designed and implemented in alignment with staff's diverse needs and with their professional ambitions.		

1.) Corresponding sections where a *third order* theme is elaborated and integrated.

The following three sections (7.1.1-7.1.3) discuss each composite theme in detail, leading to a discussion of how these *third order* themes were integrated into the "*Conceptual framework of the university* third space *professional staff cross-boundary collaboration*", and into the set of practical recommendations for the TU professional staff and the university leaders (Section 7.2). This penultimate chapter concludes with a brief summary of the outcome of the AQRS approach applied to the research findings – i.e., the *third order* themes' development and interpretation that culminated in creating a novel concept, a conceptual framework and a set of practice-informing recommendations to assist with the future collaborative engagement of the university professional staff (Section 7.3).

7.1.1 Composite theme 1: The meaning and importance of collaboration in the university **third space** *environments*

The research set out to explore how university *third space* (Whitchurch, 2012) was interpreted by the university actors, and through applying the concept to explore particular selected university collaborative projects to increase understanding of the university professional staff collaboration across organisational, functional and cultural boundaries. Another practical goal was to examine what needed to be done for professional staff to be willing to collaborate across multiple boundaries.

The analysis of the findings (Chapter Five) from the Phase One interviews with TU middle to senior managers illuminated that people, their professional identities and their work relations, their expertise and their attitudes towards crossing various organisational boundaries to achieve the desired outcomes are what makes up the essence of the *third space* environments, in which staff join their forces, individual and collective energies and expertise to work together on various university projects. Phase Two of the research therefore focused on five such *third space* cross-boundary projects, which were selected carefully on the basis of their diversity and their potential to provide insights into the phenomenon of the university

third space collaboration. Phase Two findings revealed that, although not many TU professional staff were familiar with the terms *third space* and *third space professional* (Whitchurch, 2008a, 2012), the majority of the interviewees perceived themselves as working at the intersection of academic and professional spheres of activity, at times crossing the boundaries between various organisational and functional domains, effectively identifying as *third space professionals*.

This particular finding differed from the results of the survey of 428 higher education staff from 59 institutions in Australia and New Zealand conducted by the Association for Tertiary Education Management (ATEM) (Mirosa et al., 2017). The results of ATEM's study pointed out that the majority of professional staff described their work as being solely *professional* or *support* in nature, which led the authors to the conclusion that the low number of respondents with self-reported mixed (academic and professional) professional identities would make the analysis of the *third space professionals* problematic. The bounded nature of the professional staff roles (Mirosa et al., 2017) may appear on the surface to contradict other empirical research findings conducted thus far. For example, Whitchurch's (2012) data from 64 respondents across higher education institutions in Australia, the United Kingdom and North America showed that an increasing number of professional staff, either through project work (conscious choice) or by default (accidental involvement), had entered those "contiguous spheres of activity" (Whitchurch, 2012, p. 31). Graham's (2013a) single university, multiple case study findings confirmed that a wide range of professional staff (in and at various positions and levels) were gravitating towards the *third space* work. Bird (2015) and Botterill (2018), among other higher education researchers, as well as the author of this doctoral thesis, arrived at a similar conclusion based on their respective empirical studies of cross-boundary university staff engagement.

The potential reasons for what could be interpreted as the divergent results of this doctoral research and the other afore-referenced research, on the one hand, and those of ATEM's (2017) survey on the other hand, are the following. Firstly, the ATEM survey (2017) specified neither the participants' classification level (i.e., the level that was reflected in the Australian and New Zealand higher education institutions' nomenclature), nor their managerial or other responsibilities, whereas this research and several other studies focused on middle to senior professional managers who, owing to their higher positions and their diversified professional responsibilities, may have been inclined inherently towards navigating the professional and organisational domains. Secondly, and more importantly, there are no formal structures that exist currently in the universities in Australia and New Zealand to recognise and legitimise the work activities in spaces other than those that are designated by the contractual agreement pertaining to a role. The work role segmentation of professional and academic staff therefore endures (Blackmore, 2009). Unless staff members engage deliberately in research, read the topical literature or follow the discussions in the higher education field, they are not familiar with the university *third space* terminology. They may be engaged in cross-boundary collaborative projects with their academic colleagues, and yet they are unlikely to identify as *working across boundaries* and as being hybrid professionals or *third space* practitioners. For these two reasons alone, it is problematic to compare and draw definitive conclusions based on the differences between the findings of the ATEM survey (2017) and those of this doctoral research.

Despite the divergent results of the compared studies, Phase Two of this research proceeded with using the university *third space* typology (Whitchurch, 2012, 2018) as a basis for selecting the cross-boundary collaborative projects for further examination. Using the interpretative lenses of the *Boundary Crossing Learning Mechanisms* (Akkerman & Bakker, 2011a) and a derivative *Multilevel Boundary Crossing Framework* (Akkerman & Bruining,

2016), underpinned by the precepts of Self-Determination Theory (SDT) (Gagné & Deci, 2005; Ryan & Deci, 2000, 2017), the research traced the changes occurring in contemporary higher education in an attempt to make sense of the new ways of staff professional engagement. By interrogating TU staff collaborative engagement from the three perspectives (types of collaborative spaces, learning activated during and from the boundary crossing, and the needs of professional staff in the context of collaboration), it becomes possible to appreciate the predicament in which both academic and professional communities often find themselves while working together. The continued dual nature of the relationships, which lies at the core of this predicament, was summarised by one of this study's participants:

> The challenge between academic and professional staff working together is whether or not we're able to transcend in that *third space* the sense of respect, engagement, [and] mutual benefit, that we both get something out of it, that there is reciprocity. When you're in a space where you've got professional staff who are often not paid [the] same salaries as the people who[m] they're working with, and that maybe [are not] even on the same scale with other people that you're working with, there can be a very different space of professional recognition. That is the challenge for those of us who are on the other side of the table in the senior management professional academic roles, that we're able to bring to the relationship an engagement, a way of making sure that the people that work with us are valued and feel respected, and feel and understand that we acknowledge them for who they are and what they're bringing to this. (*Amelia, TUA, Case #2*)

The complex task of professional recognition and of the responsibilities that lie, according to a few academic participants, with the senior leaders of the university to reconcile diverse professional identities, particularly in view of the continuously evolving "disintegrating nature of the academic/non-academic dichotomy" (Macfarlane, 2015, p. 107),

appears to be at the heart of searching for the meaning of collaboration within the university complex, cross-boundary contexts.

Collaboration as an optimal way of working.

Collaboration research argues that working together is an optimal way of dealing with the complex and competitive business world (Eddy, 2010). It affords drawing on the resources, capabilities and expertise of individual actors while using the collaborative energy of people not only to achieve the immediate project goals, but also to enhance the collaborative capital of the whole organisation (Beyerlein et al., 2003; Huxham & Vangen, 2005). Similar arguments are applied to the contemporary university contexts (Eddy, 2010; Macfarlane, 2017; Marshall, 2018; Parkes et al., 2014; Perkins, Bauld, & Langley, 2010; Veles et al., 2019). In this research, the five explored university *third space* collaborative projects supported the argument for collaborative advantage by demonstrating that the success of all these projects depended largely on people working together effectively across boundaries. Interpretation of the significant arguments either converging with or diverging from the research literature, or pointing towards new lines of enquiry, is discussed in this section. These include the benefits of collaboration, perceptions of competition within a wider collaboration narrative and the barriers to collaboration.

Benefits despite the problematic nature of collaboration.

The specific benefits of staff collaboration reflected on by the majority of the participants focused on: the improved student engagement and experience; building the collegial relationships and developing innovative solutions for the external parties (e.g., industry partners) while establishing a culture of innovation within TU; and, finally, specifically for academics, utilising a competitive advantage working as an inter-disciplinary team. This latter benefit, however, was not devoid of controversies, which were consistent with those discussed in the higher education research. On the one hand, as Macfarlane (2011,

2017) pointed out, there are advantages of having diverse human capital in a university: when the strong working relationships between ordinarily non-cognate domains are established, people learn from one another's practices, expertise and perspectives, which leads evidentially to establishing new, often advanced and more sophisticated practices and processes. On the other hand, the complexity and the paradoxical nature of collaboration render the assertion of the unequivocal benefits of collaboration problematic. Collaboration in research, for example, represents a boundary between a collective effort, which is argued to be inherently beneficial for research endeavours (Akkerman, Admiraal, & Simons, 2012), and the individual performance measures that contradict the notion of collaborative ethics (Macfarlane, 2017).

In the context of academic and professional staff's collaboration, as the earlier quoted research participant elaborated, the complexity of professional relationships was inter-linked with the question of the reciprocity and recognition of the contributions of staff who are employed traditionally on different work contracts, which presuppose different outcomes and therefore different remuneration. It may be timely to entertain the possibility of moving towards a model, as proposed by Graham (2018), who suggested that conceptualising the diversity of roles among the academic and professional staff as a matrix with a uniform pay spine, thereby transcending both a traditional binary divide (Dobson, 2000), and the other models (e.g., the academic to professional roles' continuum or an overlap between the roles [Jones, Harvey, & Lefoe, 2014; Kehm, 2012; Kehm & Teichler, 2012]), may have notable benefits for all university communities. Such an approach may introduce equity, the advantageous and novel forms of career progression for professional staff and the recognition of value that diverse staff and groups bring into collaboration. Imagining this new approach to recognising staff contributions does not address the controversy of the academic research collaboration (which is discussed in the following part of this chapter). Nonetheless, the

unified way of positioning the university actors may be a potential solution to increasing the professional staff's collaborative engagement.

Collaboration vs. competition.

Positioning collaboration against competition was debated by many research participants. In the context of academic research, competition is often used by managers as a mechanism of generating and perpetuating collaborative energy, which was considered problematic and counter-productive (e.g., George, Phase One participant). It was consistent with the perceived and continuously increasing tensions within a system of already contentious academic performativity (Macfarlane, 2017; Van Den Besselaar, Hemlin, & Van Der Weijden, 2012).

By contrast, professional staff appeared to be benefiting from a small dose of competition encouraged by project or team leaders. "**Con**-structive" competition, as Nimala (a Phase One participant) emphasised, provided the team members with an incentive, adding "a bit of interest" and excitement (see also, Larry and Harry, Phase One participants), and increased the sense of pride, loyalty and belonging to the group shared by staff within the group. There was a consensus among the research participants that competition-inducing techniques to increase staff collaboration needed to be used sparingly and treated with caution in order to avoid instigating enmity between staff, thereby causing isolation of individuals or teams.

At the same time, competition can be a device used to achieve competitive advantage or to induce creativity. Although mentioned by only a small number of participants, this viewpoint merits further exploration. This finding was unexpected, particularly since the literature demonstrated unanimity interpreting competition as a pursuit of or highlighting the differences between one's own and others' results within the same social frame (Smith, 2005), or as a way of inducing rivalry in the context of interprofessional practice

(Wackerhausen, 2009). It is generally believed that competition is less likely to produce the desired outcomes compared with genuine collaboration of staff.

If competition, however, is articulated as a constructive technique of instigating the flow of collective creative energy of staff working together and feeling enthusiastic and respectfully curious about discovering alternative ways of achieving common goals, then it is conceivable that competition is not in fact a boundary that separates the actors and groups, but it is rather a way of appreciating and utilising diversity that augments the benefits of having multiple voices and perspectives, thereby encouraging a collective to reach **a good** and not **the** best outcome. It would nonetheless be advisable to treat such interpretation critically, as it may be perceived as an act of assigning agency to a naturally occurring phenomenon (competition), thus inadvertently promoting its fetishisation in higher education (Naidoo, 2016).

Barriers to collaboration.

Consistent with the research literature on this topic, university staff collaboration was recognised by many research participants as simultaneously beneficial and equivocally complex, thereby encountering barriers (Hobson et al., 2018; Pham & Tanner, 2015). Organisational barriers to collaboration, discussed extensively in Chapter Six (Section 6.2, "Possibilities [and challenges]"), included a lack of recognition of staff collaboration; insufficient time and space allocated for staff working together across boundaries; and the difficulty of locating professional staff with requisite capabilities for participation in collaborative projects. The challenges of the first and the second nature are common among the universities in Australia and across the globe (e.g., Parkers, Blackwell Young, Cleaver, & Archibald, 2014; Pham & Tanner, 2015). These challenges are reflective of the contemporary university reward structures that have not yet developed the level of sophistication needed to integrate rewards for collaboration. It is not surprising that managers at times feel reluctant to

allocate resources (time, in particular) to support staff collective endeavours (Parkers et al., 2014; Thomas, 2012). Further elaboration of the topic of staff rewards is offered in Section 7.4 of this chapter.

Fundamentally, with little or no recognition of professional staff who dare to cross the boundaries venturing into the unchartered *third space*, university third space was described by one of the participants as a "wasteland" (Mark, Phase One). It was an image of "nobody's land, belonging to neither one nor the other world" (Akkerman & Bakker, 2011a, p. 141), often used in *third space* and boundary literature. This often produces a sandwich effect for people crossing or working in between those sites of practice.

What was not mentioned in previous research was that, within the university, it is often difficult to locate professional staff with the requisite skills and attributes to join a team. This element appears to be a part of a larger challenge of staff connectedness. For many professional staff, the involvement happened purely by chance. Some participants described that they became involved by accident or through word of mouth. A factor that contributed to the disconnectedness of actors was the university restructure, which is commonly presented in the higher education literature as affecting primarily academic staff identities through the disruption and displacement of traditional, discipline-based allegiances (Henkel, 2010; Usherwood, 2010). As this research showed, the effects of TU's large-scale transformation in 2014 were widespread and largely detrimental for all TU communities. A decentralisation with a subsequent re-centralisation of certain university functions (re)drew boundaries between academic and professional staff, destabilising the traditionally established networks and connections between people. The created social conflict represented the emergence of boundary objects used by TU in exactly the same way as described by Akkerman and Bakker (2011a) and, earlier, by Star (2010): it was a means of translation between otherwise disconnected groups of staff, which enabled them to work together through providing a

symbolic arrangement or agreement, without which a complete discontinuity of practices and communication would have occurred.

The university transformation narrative notwithstanding, another reason for the feeling of continuous isolation experienced by staff was the perception of having no or a limited number of professional goals in common. Unlike claims made by higher education researchers (Hobson et al., 2018; Szekeres, 2011) that both (academic and professional staff) groups have common – albeit enacted in parallel fashion – goals, this research arrived at the conclusion that TU staff were working towards different and only occasionally converging goals. When these goals coalesced, it was mainly owing to convenience rather than being based on any genuinely shared vision. Divergence of professional goals therefore may be interpreted as another barrier preventing academic and professional staff from developing stronger work connections. The weak associations among professional groups made it difficult to find the right professional staff, or any staff to that extent, which consequently led to the limited use of professional staff's talents and capabilities and, consequently, to the university's constraints in relation to reaching the full collaborative potential.

One research participant presented a vision of an archetypal space, in which all TU staff had one goal, and that was of an ultimate partnership for the common purpose of the sustainable and transformative change of each individual (student and staff alike): "It doesn't matter what space someone is sitting in: we're all working together towards [a] common purpose, so we're partnering together" (Mark, Phase One). This vision can be achievable if "the concept of 'service', whether to colleagues, students, clients or external agencies, has been absorbed into a wider notion of 'partnership' between peers, who in many cases learn from each other" (Whitchurch, 2012, p. 77). It is therefore important for TU leaders and all university communities to endorse the idea of genuine collaboration-as-partnership in order to bridge the divide between groups, and to recognise all actors' efforts in collaborations. It

can be achieved gradually, as some participants suggested, through showcasing the university's successful joint projects, thereby normalising cross-boundary collaboration by repositioning it from being seen as liminal spaces of tension and desolation to being perceived as spaces of coherence and accomplishment where people connect and enjoy working together.

Concluding thoughts on collaboration.

The final remarks on the theme of collaboration need to emphasise that the "moral complexities" (Macfarlane, 2017, p. 474) of and operational barriers to collaboration (Pham & Tanner, 2015) frequently lead to collaborative inertia (Huxham & Vangen, 2005), and, as a result, to an inability to harness the collective collaborative energy of people that is generated through joint professional engagement. As suggested by this research, participants frequently felt frustrated and discouraged by these barriers, yet nonetheless they genuinely enjoyed working together with other professional groups. The persisting tension means that the TU environment needs to be improved to encourage participation and to improve connections between people using the common goals of innovation, creativity and progress, which may be achieved when collective effort is deployed to address and transcend the persisting boundaries.

7.1.2 Composite theme 2: An integrative approach to boundaries

Crossing multiple professional, functional and geographical boundaries for the purpose of collaborative project work, and transitioning occasionally into new, unfamiliar spaces of intermingling roles and identities (Akkerman & Bakker, 2011a; Whitchurch, 2010a, 2012), may have been increasing the permeability of certain boundaries, as recent empirical research suggested (Botterill, 2018). This research identified that there were generally three perceptions of TU boundaries and of their porosity that were prevalent across staff:

- **the majority view:** there are hard and soft boundaries (a binary view – i.e., a dichotomy applied to the delineation of roles and missions of academic and professional staff, and to the associated types of professionalism);
- **the minority view:** boundaries need to be challenged and crossed (a pragmatic or a boundary-transcending view);
- **a single participant's view:** the university boundaries should be seen as fluid – i.e., changing their outlines with various new emerging activities (a boundary permeability view).

The majority view of the boundary dichotomy was a perplexing finding considering that there were ample examples of successful crossing between various types of professional groups and identities – e.g., library practitioners teaching digital literacy and academic writing skills to the first-year students (e.g., Tamara, Nimala and George, Phase One).

This phenomenon may be explained if the duality of a boundary is interpreted simultaneously as a constraining and an enabling property (Berg & Smith, 1990; Hernes, 2003), leading concurrently to the discontinuity of practices and to the generation of new learning (Akkerman & Bakker, 2011a). In line with the organisational boundary research, boundaries at TU are argued to have a controlling influence on individual actors and on the whole professional groups, making their actions, social interactions and behaviours predictable. At the same time, as suggested by Hernes (2003), while providing stability through time and space, boundaries equally afford the actors the opportunity to mobilise resources, thereby releasing the creative energy of all who are working in the bounded spaces. Interpreted through the duality of the organisational boundaries, the examples of professional staff boundary crossing could be perceived as the spheres of collaborative – *third space* – activities, which are gradually emerging from or becoming embedded in the traditional legitimised core domains (e.g., teaching and learning). Around these spaces,

porous boundaries emerged to signpost the new space of creative exploration, experimentation and discovery – the processes that were challenging the established and traditional paradigms. This duality-embracing approach to boundary interpretation may potentially open a new line of argument integrating these three views expressed by all research participants.

Multiple TU boundaries were articulated unanimously as restraining innovation and the free exchange of ideas while hindering people's connectedness and collaboration. By the same token, when exploring relationships between individual actors when they were crossing multiple boundaries working on collaborative projects, it became obvious that it was the enabling (as opposed to the constraining) capacity of boundaries that was perceived as an essential element of achieving successful outcomes of the projects. Wenger's (1998) and Hernes's (2003) perspectives portraying organisational boundaries between diverse practices as a fertile soil for innovation, which is achieved through the collaborative (re)negotiation of individual perspectives (Vakkayil, 2012), became evident in all five explored cases. An integrative approach was therefore employed to interpret three types of participants' perspectives on boundaries, focusing on the duality, transcendability and permeability of this organisational phenomenon. The integrative approach to boundary interpretation highlighted an overarching generative capacity of boundaries simultaneously as a set of mechanisms for learning, on the one hand, and as markers of difference and illuminators of diversity, on the other.

Sub-theme A: Boundaries as a mechanism for learning.

Despite having a somewhat different focus, the conclusion that this research reached was in line with those of Fitzgerald et al.'s (2018) study of interdisciplinary scholarly collaboration and of a study of collaboration between library practitioners and academics by Pham and Tanner (2014, 2015) and Pham and Williamson (2020). If the university *third*

space collaborative environments are the spaces where diverse staff perspectives and a complementarity of multiple expertise and capabilities converge to produce new learning[7], then it is critical to reward staff for their efforts in venturing into spaces other than their own practice sites, providing innovative ideas to develop new practices at the boundaries. Acknowledging their efforts is important in order to foster future cross-boundary work and collaboration.

Revisiting the BCLMs, as they were applied to the first two stages – analysis and synthesis – of the AQRS process (see Chapters Five and Six), while discussing the interactions of staff and the production of learning at the boundaries, generated an idea of converging three[8] of the four BCLMs (*identification, coordination* and *transformation*) with the three phases of professional staff debates (Whitchurch, 2010a, 2012; Whitchurch & Law, 2010), as they were described when engaging with the literature (Chapter Two, Section 2.5.1., Table 2.1). Converging the BCLMs and the three phases of professional and academic staff interaction and interpreting them in their unity (Table 7.2) provided a more granular and productive means of exploring "phases in the maturation of activities and identities" (Whitchurch, 2012, p. 27) as they were being activated in practice, and illuminated the processes that were activated when professional staff crossed various boundaries to work together with other actors.

[7] Learning is interpreted in a broad, pragmatic-utilitarian sense of change and development, including such transitions as acquiring "new understanding, identity development, change of practices, and institutional development" (Akkerman & Bakker, 2011a, p. 142).
[8] The reason for excluding *reflection* from the four BCLMs was provided in Chapter Six, Section 6.3.

Table 7.2

Linking the BCLMs (Akkerman & Bakker, 2011; Akkerman & Bruining, 2016) and the University Third Space *Phases of Staff Interactions (Whitchurch, 2012) with the Evidence of the Nexus in this Research*

	Boundary Crossing Learning Mechanisms	Interaction phases	The research findings
Reconstruction of boundaries and the contestation of different perspectives	*Identification:* characterised by demarcation and frequent destabilisation between practices and identities, leading to a reconstitution of boundaries while potentially preserving discontinuities.	*Contestation:* presupposing compliance by individual actors with established (regulatory) practices accompanied by tension between actors/groups as they negotiated their identities and positions *vis-à-vis* established rules, often tacitly questioning practices or exhibiting resistance and explicitly challenging rules.	Evident through all explored cases at all three (institutional, interpersonal and intrapersonal) levels.
Transcending the boundaries and establishing the continuity through overcoming boundaries between practice sites	*Coordination*: defined by establishing communitive connection between actors and sites accompanied by efforts to translate practices across sites and identities, thus increasing the permeability of boundaries, and potentially the routinisation of practices.	*Reconciliation*: described by entertaining the possibility of genuine collaboration between actors/groups through considering shared purposes and values.	Implicit in some project participants' accounts and explicit in others.

	Boundary Crossing Learning Mechanisms	Interaction phases	The research findings
Creation of new – boundary – practices through an authentic dialogue and collaboration between actors	*Transformation*: accompanied initially by addressing discontinuities through confrontation, recognising common problem spaces and genuinely engaging in meaning negotiation, collaborative problem-solving and innovation, ultimately leading to profound and lasting changes or new practice creation.	*Reconstruction:* marked by the actors redefining their identities and practices in relation to a new and unique – *third space* – dialogical environment, with new rules and practices being created and embedded based on the active contributions of diverse actors and groups.	Evident only through those projects where participants engaged in active boundary interpretation and contestation, which led to the authentic collaboration and generative learning.

Learning as “developing new ways of doing or new ways of making sense of doing” (Akkerman & Bruining, 2016, p. 247) at the boundary crossing, enabled by collaborative work in the shared university *third space* environments, occurred at three different (institutional, interpersonal and intrapersonal) levels, which was consistent with Akkerman and Bruining’s (2016) findings. Two main points of difference between this research and the conclusions made by Akkerman and Bruining (2016) and by Whitchurch (2012) related, firstly, to the way that BCLMs were manifested through the boundary learning of the actors, and, secondly, to how certain learning processes were interpreted across different cultural sites.

Akkerman and Bruining’s (2016) framework revealed a tentative pattern that suggested that cross-boundary processes develop in a certain order: from the initial stage of *coordination* progressing to *identification*, followed by *reflection* and culminating in partial or full *transformation*. The authors’ findings about this successive fashion in which the processes developed appeared to be contradicting their explanation that “the four learning mechanisms are not to be seen as sequential or hierarchical per se” (Akkerman & Bruining, 2016, p. 247). Sequential order also contrasted with Whitchurch’s (2012) claim that, in the workplace contexts, “the three processes are not mutually exclusive, and are likely to occur in parallel, as working practices mature and gain legitimacy” (p. 27).

The interpretation of this study’s analysed themes nonetheless pointed out the dynamic progression through the learning phases (as depicted in Figure 6.1, Chapter 6, Section 6.3), with the *transformation/reconstruction* phase presenting a pinnacle that not every project succeeded in reaching. As evidenced by all five explored cases, the initial stage was the engagement in identifying differences in practices and assessing individual competences that the actors possessed or lacked. In the case of one project (TUA, Case #2), the divergent individual practices and identities failed to be legitimised, which led to a

discontinuity of practices among a number of actors. The process then moved to establishing communicative connection – coordination of practices – between actors, which involved the serendipitous location of professional staff with the required skills and mindsets (e.g., TUA, Cases #1 and #3).

What became evident was that, without participants' engagement, firstly, in actively challenging their own and others' practices and identities (BCLM of *identification*), followed by, secondly, the search for common practices (a transactional relationship without yet engaging in genuine collaboration – i.e., BCLM of *coordination*), and, finally, critically assessing and challenging the existing boundaries, and navigating or transcending them with the help of engaging in authentic dialogue through collaboration, thus creating new boundary practices, projects were unable to achieve substantial transformation (BCLM of *transformation*) at all levels. Progression through the cross-boundary learning stages identified in this research pointed to a natural accumulation of knowledge through the reconciliation of diverse perspectives (Bakhtin, 1981), evidenced through perspective-taking and prospective-making reflective practices (Akkerman & Bruining, 2016), in which the actors engaged throughout the collaborative process (BCLM of *reflection*).

The second point of divergence from the existing research was the intercultural difference in the ways that learning processes were interpreted by staff in Australia and in Singapore. At the stage of identification, the Australian participants focused primarily on the individual actors, and the othering process was activated in order to assess individual – dissimilar – practices and identities. In Singapore, othering at the stage of *identification* was de-personalised and displayed through comparing and contrasting at the level of country-based or campus-based practices (Singaporean vs. Australian campus). Similarly, the contestation of practices either did not occur or did not manifest in the Singapore-based cases. Through the lack of critical evaluation by the Singapore project participants (TUS,

Case #2), as it was perceived by the Australian participants, the translation of research management practices between the two countries progressed directly to practice routinisation, which was evidenced through the direct adoption of the Australian practices. This particular development pertaining to the Singapore professional staff needed to be interpreted in the light of the complex relationship between the Australian "main office" (the term used by the Singaporean staff) and the Singapore campus. It appeared to be a feature of a widely debated relationship between hybridity and globalisation (Koh, 2007; Kraidy, 2002). In the case of this project, it can be explained by the phenomenon of *glocalisation* (Robertson, 1995, 2012, 2014) in action, and that is a **local** response to **global** impacts. Research policies and regulations when introduced by the Australian management team met no resistance by staff in Singapore. There was no contestation of research practices, despite what Australian participants anticipated, as these practices were "owned" by just one participating site. Australian staff interpreted such quick and non-critical (in their view) adoption of policies by the Asian values argument. It is appealing to interpret the described case by what Dahles and Bruckwilder (2005) referred to as a highly rigid regulatory environment. Respect for authority and high compliance are attributed to the traditional value system originating from Confucian philosophical ethics. This system continues to shape the Singapore national culture, and, consequently, the TU staff relationships.

Exploring this interpretation, however, one may realise that it is somewhat ethnocentric in nature, precluding more open and unbounded meaning-making. This is a problematic interpretation mainly because it portrays Singaporean society and the whole Singaporean workplace as homogeneous and as being in opposition to the Western society. In reality, Singaporean society is far from being uniform: it comprises Confucian, Buddhist, Western and other values and belief systems. It is also problematic to engage excessively

with just one explicatory device. The Asian values argument, despite its neat appeal, is often being criticised for being too narrow in focus (Bell, 2000).

Another interpretation proposed in this research is that the Singapore project staff may have been engaged with globalisation on a deeper level than the Australian project team. Singapore staff were new to research practice and management. They rapidly adopted research policies from a significantly more experienced Australian research team. Their ultimate goal, however, was to develop with time a **glocal** solution that would be relevant to the local conditions. As the Singapore participants explained, the future-bound, global mindset is at times more critical than technical expertise and knowledge. Such a mindset was therefore viewed as a highly desirable cross-boundary capability that may have been misinterpreted by the Australian team merely as a pursuit of compliance. As Altbach (2010) suggested, East Asian countries are increasingly viewed by researchers and educators as "creating sophisticated international higher education policies of their own" (p. xiii), thereby providing creative, novel solutions to the globalisation challenges. This innovative approach is integral to what is described in the literature as a special form of developmental dynamism, which is a guiding principle of Confucian model countries, including Singapore (Marginson, 2011b).

Ultimately, complex relationships between staff, which consequently created divergences of practices at boundary crossing on an intercultural level, confirmed the contextuality of boundaries. In other words, boundaries are generally defined by the contexts and cultural environments in which individual actors exist, and by the cultural narratives and traditions that they share (Lamont & Molnár, 2002; Somers, 1994). It may therefore be concluded that these cultural contexts, the broader conditions of globalisation and other factors impacting on the university staff relationships within individual sites and across the

intercultural settings need to be considered carefully in order to maximise the learning potential during and from boundary crossing.

Sub-theme B: Boundary as a marker of difference and illuminator of diversity.

Exploring the participants' perceptions of TU boundaries revealed variations in understanding and appreciation of diversity in the context of boundary navigation, which was expected based on the complexity of this phenomenon (Akkerman & Bakker, 2011a; Lamont & Molnár, 2002). Diversity in TU appeared to be taking multiple shapes, and was generally considered to be beneficial for TU. The workplace diversity was interpreted largely through the non-homogeneous nature of staff, through the richness of their backgrounds, ideas and insights alongside their different work experiences, roles and professional identities.

Differences in perspectives between Singaporean and Australian participants were manifested in the way that they perceived the state of diversity in their respective workplaces. There was a vast difference between diversity in TU Australia and in TU Singapore. Over 80% of TU Singapore students and staff were born in countries other than Singapore, the nation-state that takes its special pride in being multicultural and diverse. The Australian campuses of TU, on the other hand, comprised just under five per cent of students and staff of diverse ethnic and cultural backgrounds. It was therefore not surprising that only one participant in Australia (TUA, Case #2) mentioned the problematic nature of the diversity narrative, which she described in her reflection on the Indigenous agenda in Australia.

Actors collaborating across boundaries benefit from reflecting on their own perspectives and from exposure to the multitude of ideas of others, the combination of both types of perspectives presenting the richness of intersecting worlds (Akkerman et al., 2006). The majority of the participants expressed that cross-boundary work and collaboration delivered explicit benefits for TU as such work used new ideas, a diversity of perspectives and discoveries from mixing the creative energies introduced by multiple actors. However,

attitudes towards diversity were not unanimous overall. There were participants who acknowledged diversity as a state of being and part of life, yet one participant considered diversity to be a potential impediment to reaching consensus in a collaborative work environment.

Such division is consistent with how a diversity of viewpoints is interpreted in the boundary literature: either as a valuable resource for generating a new meaning or a new understanding of a problem (Akkerman et al., 2006; Engeström et al., 1995; Wenger, 1998; Yoo & Kanawattanachai, 2001); or as a barrier to achieving a mutual understanding of and learning from one another because of the *othering* identification (Marks, Burke, Sabella, & Zaccaro, 2002). As suggested by Akkerman et al. (2006), if diversity is “actively worked on” (p. 482), rather than simply acknowledged, a true learning from other – often strange and novel – perspectives can be derived, and an authentic value of diversity can be yielded.

It became evident in four out of the five explored projects that the actors engaged actively in expressing their own otherness and in reflecting on others’ otherness throughout all communicative actions. In TUA, Case #2, however, a professional leader of the project explained that the diverse viewpoints were interfering with achieving the project goals. Later in that project, diversity became an obstacle to achieving consistency of practices across multiple sites. Uniformity and consistency of practices therefore were preferred to the diversity of innovative diverging viewpoints as such diversity was considered disruptive. Diversity as a disruptor interpretation was reflected in organisational research about university collaboration that proclaimed that “siloed thoughts and actions in organizational sub-systems disrupt cohesive organization-level movement toward common goals” (Klein, 2017, p. 254). One possible factor that differentiated TUA, Case #2 from the other projects was the project scale and complexity. It was a multi-phase, extensive project with a substantial government investment and the corresponding reporting complexities and

accountabilities. It did not appear to be a convincing argument in favour of rejecting diversity.

It was concluded that, when diverse perspectives were fully explored and utilised, “new ideas, new ways of working, flexibility, mental flexibility [and] agility” were generated, as was articulated by a Phase One participant. A dialogical approach to diversity, as suggested by Akkerman et al. (2012, 2006) conceptualises diversity not as being antithetical to unity, where unity is understood as “acting and thinking as one collective” (Akkerman et al., 2006, p. 228), but rather as a particular quality of cross-boundary collaboration that portrays unity as an ultimately successful outcome (Mercer-Mapstone, 2020). In other words, diversity in cross-boundary intercultural collaboration does not preclude unity; quite the opposite, unity is enriched by fully utilising the diversity in a group. For example, in an example provided by one Phase One participant, exploring together various different ways of navigating the national and regulatory boundaries of their respective countries, Australian and Singaporean staff were able to locate an efficient solution and, most importantly, they found new ways of supporting international students’ learning across geographical boundaries.

Concluding thoughts on diversity.

As this research confirmed, challenging, navigating and transcending boundaries led to opportunities to create new transformational learning at the institutional, intrapersonal and interpersonal levels. It may be suggested that, for professional staff to feel more inclined towards collaboration, all actors need to engage regularly in critical reflection, including both practices of perspective-making and perspective-taking (Akkerman & Bakker, 2011a), around traditional practices, role boundaries and identities, inviting and harnessing a diversity of perspectives in order to achieve coherence and unity within cross-boundary work. In the intercultural professional communication, engagement between staff needed to use every

opportunity of working together on dismantling assumptions, biases, stereotypes and categorisations, and to promote common values, a common organisational culture and a global mindset perspective while privileging the diversity at work.

Ultimately, the cross-boundary collaboration narrative may need to shift from being focused on the "despite" (i.e., despite the challenges of differing viewpoints and boundaries) mindset to the "by virtue of" (i.e., honouring diversity and difference) type of thinking. As evidenced by this and the broader contemporary higher education research, the shift is yet to be made. The university *third space* environments are articulated as playing a catalytic role in generating new possibilities and change. There is nonetheless a persisting motivation of "avoiding the sense of 'otherness'" (Marshall, 2018, p. 490), which prevents the achievement of long-lasting, transformative changes.

7.1.3 Composite theme 3:* Basic psychological needs *and cross-boundary competence – their importance for the university* third space *collaboration

The interpretation of the final composite (*third order*) theme in this section is grouped under the following three areas:

- connection between professional staff motivation and rewards;
- *basic psychological needs* as universal factors of motivation (energy activation and maintenance);
- cross-boundary competence and a global mindset.

Unlike the second composite theme (which represented two perspectives on the theme of diversity and was thereby broken into two sub-themes) discussed in Section 7.3, this theme was not fragmented. The areas of interpretation discussed further in this subsection are an integral part of one theme related to the importance of *basic psychological needs*' satisfaction, and the identified competence (cross-boundary competence and global mindset)

to be present (or developed) for professional staff to feel inclined towards university *third space* collaboration.

Connection between motivation and rewards (external regulators).

Professional staff motivations came to the fore in the discussions of what made professional staff more inclined to participate in university *third space* collaborative projects. In the studies of motivation (Deci, 1971, 1975; Deci, Koestner, & Ryan, 1999; Deci & Ryan, 1980), it is proposed that tangible (e.g., financial) rewards, and the imposition of deadlines, goals and directives (all being perceived as external contingencies or regulators), diminish staff intrinsic motivation, whereas positive reinforcement, such as the verbal expression of gratitude and the acknowledgement or provision of opportunities for self-directions, enhance such motivation, as the latter types of rewards are believed to support personal autonomy (Gagné & Deci, 2005; Ryan & Deci, 2000). The nature of the activity itself may provide deep satisfaction for a person engaged in it, thereby making this person intrinsically (as opposed to extrinsically) motivated (Gagné & Deci, 2005). The highest degree of involvement and satisfaction is experienced if the activity is self-endorsed or is based on a sense of personal autonomy (Ryan & Deci, 2000, 2017).

In this research, professional staff articulated two types of activation. Some of them reported that they were nominated or "volunteered" for a project by their manager (i.e., being extrinsically motivated). Others became engaged in the project through self-endorsement of the activity or based on the project appeal, novelty, potential for learning and professional growth that the project presented (i.e., being intrinsically motivated). Samantha (TUS, Case #2) commented on her managers' nominating her for the projects in the past. Abby (TUA, Case #2) was provided with a new, upgraded position accompanied by a new set of responsibilities in the course of the project. Henry (TUS, Case #2) revealed how a new challenging and complex project "landed on [his] lap" for him to lead. All three participants

expressed that they were initially concerned and felt reluctant to cross into new spaces, and yet they internalised the controlling contingencies (their respective managers' directive or nomination for participation), and through integrating those factors they became engaged in the activity and enjoyed with time the personal and professional growth, thereby transitioning to a more autonomous state of perceiving the project work as part of their own environment. The defining element in the transition was the trust of their managers in their capability to rise to a new challenge.

Kim (TUS, Case #1), unlike Samantha, Abby and Henry, was nominated for the project for an entirely different reason, which completely thwarted her sense of autonomy and self-endorsement. She commented on her reluctance about "taking it on", and "having no choice" in the matter. She was nonetheless able to refocus and reposition herself by taking initiative in learning new skills, which eventually led to her feeling enjoyment from the project work. She gained a new perspective and rearticulated her sense of autonomy through working independently on certain key project tasks. It appeared that, although the starting external contingencies were different (manager's trust vs. manager's command), all four of these staff were able eventually to self-endorse the project activities and to derive intrinsic motivation from their participation in the projects.

Other professional staff (e.g., Sheldon, TUA, Case #1 and Myles, TUA, Case #3) articulated an explicit need to have a choice in selecting the projects for participation. The ability to exercise choice led to the feeling of being productive and efficient (for Sheldon), and to drive, passion and enthusiasm (for Myles). The work that these two staff members performed in their daily professional life involved a high degree of innovation, which may have been the reason that set these two apart from other interviewed participants. They appeared to be drawn to the challenge that the project (re)presented for them, and therefore none of the external regulators (e.g., manager's nomination for a project) could have been or

needed to be internalised in order for them to feel intrinsically motivated to participate. The interpretation of the distinctiveness of these two participants' motivations pointed to the direction of an autotelic personality (Csikszentmihalyi, 1975, 1990, 1993, 1996, 2000; Engeser, 2012), which enables people to derive satisfaction from the challenges that the work presents, and from the actual process of problem-solving.

Based on the interpretation of these dissimilar cases of motivation expressed by professional staff members towards collaborative projects, it may be suggested that a customised approach is required to make professional staff feel more inclined to cross boundaries and to work together with their academic colleagues on solutions to the university challenges. For some, an active encouragement and even a direct nomination by their managers may be beneficial, while for others an alignment between the purpose of the project and staff individual expertise, interests and passions needs to be articulated. It appears that diverse needs for autonomy may need to be accommodated to obtain maximum benefits for the organisation and for an individual.

On the topic of rewards for professional staff, although there was a moderate variation in types of rewards that professional staff suggested as being desirable for them in the context of cross-boundary collaboration, in this group of participants there was no difference noted between staff who were more intrinsically motivated and those who may be referred to as control-oriented (Deci & Ryan, 1985; Gagné & Deci, 2005). In addition, none of the interviewed professional staff mentioned financial or other tangible rewards as being essential or even important for them in the context of collaborative engagement. It can be suggested, therefore, that a combination of intrinsic motivation and non-tangible emotive rewards (enhancing motivation), as opposed to financial or other tangible rewards (potentially thwarting motivation), was important for TU professional staff to feel more willing to participate in the university *third space* collaboration.

***Basic psychological needs* as universal factors of motivation (energy activation and maintenance).**

As this research showed, energy was one of the qualities that needed to be "unleashed" or "activated" and nurtured by the TU leaders in order to foster professional staff participation in collaboration and reaching across boundaries for work. Motivation is described as having two factors: activation (energising and energy-sustaining); and intention (providing direction) (Ryan & Deci, 2000, 2017). The exploration and interpretation of the conditions required to generate and perpetuate the energy of professional staff towards and within their collaborative *third space* work were equally important alongside the connection between the rewards and motivation.

Basic psychological needs or *universals* postulated by SDT (Ryan & Deci, 2000, 2017) – *autonomy, competence* and *relatedness* – were found to be the critical requirements that needed to be satisfied across all types of projects, and across the research sites in both Australia and Singapore (dissimilar in organisational structure and culture), for professional staff to be energised, activated and willing to work in the cross-boundary university *third space* environments. Table 6.2 (Chapter Six, Section 6.2) provided a detailed analysis of variations on the expression of the *universals* across all five projects, phases and sites of research, which included the findings from both the academic and the professional staff.

For professional staff in particular, the differences between two dissimilar sites were noted in the level of expression and interpretation of their need for autonomy in particular. In Australia-based projects, feeling enabled to be guided by their own judgements when making a decision to partake in collaboration was paramount for many Australian professional staff to become intrinsically motivated in a cross-boundary project, which was consistent with the findings focused on Australian professional staff motivations (Davis & Graham, 2018; Graham, 2013c). Learning from the Singapore-based projects demonstrated that autonomy

was a more nuanced and context-dependent factor for professional staff in Singapore. In Australia, professional staff appeared to be discouraged by organisational boundaries and hierarchies that often thwarted their sense of autonomy, and that led to discontinuities of communication and other professional practices. Singapore-based professional staff, by contrast, navigated the existing organisational, functional and policy boundaries to reassemble their need to express autonomy and, ultimately, to derive satisfaction from the project work. Autonomy for them was reconstructed through their feeling competent and energised to provide support and assistance to other team members.

Expression of the second *universal – competence –* was largely similar across projects, cultures and campuses, and included staff perspectives similar to those highlighted in Regan and Graham's (2018) research about motivations of professional staff in higher education. Self-competence was perceived in the light of the possession of the general core skills and expertise required to be utilised on the project or of the ability to acquire new skills, professional relations and networks. It was also interpreted as the ability to make significant difference beyond their immediate work scope. Interpretation of this finding was highlighted when placed in the context of a body of research in community psychology on *mattering* (Prilleltensky, 2014). *Mattering* is an individual's feeling that he or she makes a difference in his or her social environment and is important (Elliott, Kao, & Grant, 2004; Jung, 2015; Prilleltensky, 2014; Rosenberg, 1985). In the work and career development context, an actor's perceived *mattering* assists with validating the significance of work (Jung, 2015), and is therefore connected with the motivation (Rosenberg & McCullough, 1981) that one feels for one's work and the importance of feeling competence. Professional staff in this research expressed the need to feel connected (*interpersonal mattering*) with others, to be (cap)able to help others and to contribute to the larger university goals through their work. Interpreted through the lens of *mattering*, the second *universal – competence –* becomes a

connector between professional staff's motivation for work through contribution to collaborative relationships and the need for relatedness to their academic and other colleagues.

The point of differentiation from the previous research was related to the discussion of opportunities to participate in university-wide projects and initiatives, which were positioned as contributing to professional staff's further skills development. This was reported to be high in the context of metropolitan (and therefore larger in staff and student number and higher in diversity) universities, such as those that were the sites of research in Regan and Graham's (2018) and in Davis's (2018) studies. In this research, which was situated in a relatively small regional university, all staff commented on the very few opportunities that existed for professional staff to engage in collaborative projects or, generally, to progress their careers. Interpretation of this divergent finding led to emphasising the importance of creating the opportunities for professional staff to partake in cross-boundary work in the environments that may be lower in relation to naturally occurring staff collaboration (owing to being smaller in size or lower in diversity).

Relatedness, the third *basic psychological need* in the SDT framework, was expressed invariably through the general sense of disconnectedness owing to the increasing fragmentation of professional groups. The serendipitous nature of locating professional staff with the required skills and mindsets was deemed to be preventing many professional staff from taking part in the collaborative cross-university, cross-campus and intercultural projects or, more broadly, in any projects outside their professional work domain. It may therefore be important to support and promote the role that Harry (Phase One participant) called "a critical role of connecting ideas and people". Organisational literature describes it as a *boundary spanning* role (Aldrich & Herker, 1977; Friedman & Podolny, 1992; Walker & Nocon, 2007; Williams, 2002, 2011, 2013). In this research, professional staff performing these roles by

design (e.g., library and research commercialisation professionals) explained their roles as bridging multiple university constituencies, facing different directions while mediating, navigating, negotiating and translating various, often dissimilar practices and developing solutions for multiple users and groups. Actors performing these roles are defined as *third space* professionals (Whitchurch, 2009b, 2012), and this diverse group encompasses those professional staff who work *inter alia* in research and business partnership management, learning design, academic program development, libraries and information technology. These staff – by virtue of their professional identity, organisational knowledge and practical involvement in multiple governance structures – may be ideally positioned to initiate and lead collaboration, providing an interface between diverse professional and academic activity domains, and performing translational and connectivity-enabling functions (Fitzgerald et al., 2020; Huijser et al., 2020). With the continuous development of the new spheres of university activities, however, it is not surprising that staff who may not have traditionally perceived themselves as *third space* professionals begin to identify themselves as such (Botterill, 2013, 2018; Hobson et al., 2018). These professional staff become more involved in managing, negotiating and integrating diverse and at times conflicting discourses and practices located across boundaries (Walker & Nocon, 2007). It can be concluded that the cross-boundary activities will continue to proliferate, and this means that cross-boundary roles with the associated critical attributes may need to be expected from multiple TU actors, in addition to those who are positioned purposefully to perform these roles.

It is noteworthy that, although the needs for all three *universals* were explicitly recognised by all professional staff irrespective of their cultural backgrounds, the variations were noted in the actual needs' expression (of motivation in collaborative projects, in general, and of autonomy at work, in particular) across two dissimilar cultural contexts. Success for Singaporean professional staff, unlike that for their Australian colleagues, was identified as a

critical element that provided motivation for, and, ultimately, satisfaction from, collaborating in the project. As argued by Chen et al. (2015), this cultural variance could be attributed to the context of involvement in a specific event or activity. It could equally point to a more significant and nuanced variation in the expression of *universals* across cultures. Within the Asian cultural context, an interpretation of success and its connection with motivation for work collaboration can be traced to a concept of *mianzi* ("face"), one of the most important concepts in Asian (Chinese, in particular) cultures (Earley, 1997; Ho, 1976, 1994). Taking its origin from Confucian ethics, *mianzi* signals and signifies an individual's social status, reputation and fame attributed to the achievements purposefully accrued through life (Li, 2013; Yang, 1997). Circumstances that may lead to the loss of face vary, and the consequences may be potentially devastating for an individual and even for her or his family. For the Singaporean participants in this research, such a loss of face would have been caused by their individual performance on the project falling below a certain level, which by contrast would be considered satisfactory in the public eye (of their peers or managers). As Henry (TUS, Case #2) stated, "I really don't accept failure because in such projects I believe it is within our control". The ability to compare their achievement with the social expectations placed upon each of them (as related by Earley, 1997; Ho, 1976, 1994), and conceptualising success as a reward in its own right, were the two elements critical for the Singaporean professional staff members' motivation. The lack of acceptance of failure in their professional undertakings can therefore be interpreted through the perceived risk of losing face, and more broadly, as a performance anxiety (Retna & Jones, 2013) entering and working within an unfamiliar *third space* environment.

Cross-boundary competence and global mindset.

What was originally perceived as an extension of a *basic psychological need* for competence, cross-boundary competence and global mindset were later reconceptualised into

a superimposing set of attributes above and beyond the three *universals*. These attributes were perceived by the interviewed professional staff as having a higher importance for successful *third space* collaborations than the main expertise or technical skills that were typically required for the job. It is therefore suggested to articulate these competencies as a set of attributes as overlaying SDT's *universals*. In addition, it is suggested to replace the antiquated term *soft skills* that persists in the higher education discourses with the term *cross-boundary competence*. The reason for this proposed change in terminology is based on the fact that none of the research participants' accounts reflected an idea of the *softness* of these critical capabilities within the *third space* collaboration. These skills are being gradually developed through challenging (or *stretching*, as participants referred to it) oneself, reprogramming professional identities by being placed out of one's comfort zone and gaining new experiences through boundary crossing.

A global mindset or "a higher order thinking" (as Paul, TUS, Case #2 participant referred to this attribute) appears to be another prerequisite for any cross-boundary, university-wide, collaborative engagement. The interviewed professional staff, across all explored projects, were able to interpret the importance of the project beyond their team, and above their immediate sphere of responsibility and influence, and to place its criticality within the context of the whole organisation. It is therefore concluded that developing in professional staff their cross-boundary competence, and nurturing and promoting their global mindsets, contribute to promoting their feelings of *mattering* (Prilleltensky, 2012, 2014), and to their overall potential for expressing and satisfying their *basic psychological needs* in the collaborative projects.

Finally, the concept of professional staff *activation* (Joseph, TUS, Case #1) can be interpreted in the light of staff agency, or staff's ability to engage their capacity for transformative work. Activation was discussed primarily by the academic staff who believed

that inspiring and energising professional staff for collaborative work were generally the responsibility of the university leaders. It is proposed that a countervailing necessity exists for professional staff autonomously to generate and maintain energy, and to express drive and enthusiasm towards taking initiative and towards participating in various collaborative projects. This proposition is aligned with Davis and Graham's (2018) and Goedegebuure and Schoen's (2014) conclusion focused on the need for higher education professional staff and managers at large to exercise agency and to take responsibility for their professional growth. Professional staff are expected to enact their individual agency, voicing their opinions to garner their leaders' support of their autonomy, participation and empowerment, actively and boldly exploring and venturing above, beyond and across boundaries. They also need to be making their skills, capabilities and ambitions explicit and visible (e.g., at times "muscling their way in", as suggested by Norah, TUS, Case #1) for and within collaborations. Together, professional staff and TU leaders may achieve better outcomes in developing global mindsets across professional staff and in activating and harnessing a diversity of those ideas, mindsets and perspectives for an overall purpose of achieving TU collaborative advantage.

Concluding thoughts on the *basic psychological needs* and cross-boundary competence.

The interpretation of the third composite theme of the importance of the *basic psychological needs*' satisfaction and the cross-boundary competence for the cross-boundary professional staff collaboration confirmed the consistency of this study's conclusions with the conclusions expressed in the emerging body of higher education research focused on university professional staff motivations (Davis, 2018; Davis & Graham, 2018; Graham, 2013c; Regan & Graham, 2018). The noted variations established across the cultural and individual expression of motivations within the respective project contexts reinforced the importance of applying the nuanced interpretations to these intercultural dissimilarities in

order to avoid a unidimensional approach and unintentionally underestimating the importance of cultural impacts on cross-boundary work. The application of the tenets of the "*dynamic* theory of motivation" (Ryan & Deci, 2017, p. 11), the BCLM framework (Akkerman & Bruining, 2016) and the university *third space* classification (Whitchurch, 2012, 2015) to the interpretation of the key themes that emerged in this research provided an important foundation to propose a series of conclusions that were integrated into the culturally inclusive and multi-dimensional recommendations that are discussed in the next section.

7.2 "*Conceptual framework of the university* third space *professional staff cross-boundary collaboration*": Recommendations for Tropical University leaders and professional staff

The integration of the interpretations of the three composite (*third order*) themes and the cohesion among these themes, which incorporated an expansion of the developed novel concept of "*Basic Organisational Needs*", and the new interpretation of cross-boundary competency (Walker & Nocon, 2007) as an overarching set of attributes above and beyond the recognised *universals* (Ryan & Deci, 2000), provided a strong and informed basis for building the recommendations for TU professional staff and their leaders. These recommendations, in turn, shaped the development and formulation of the "*Conceptual framework of the university* third space *professional cross-boundary collaboration*".
The following recommendations follow loosely the core dimensions of pragmatic constructivism (Nørreklit et al., 2010b), although there is a significant overlap in recommendations, and therefore Figure 7.1 was drawn to represent the following eight main

interrelated areas into which the developed recommendations fall. The recommendations arising from this analysis are listed in Table 7.3.

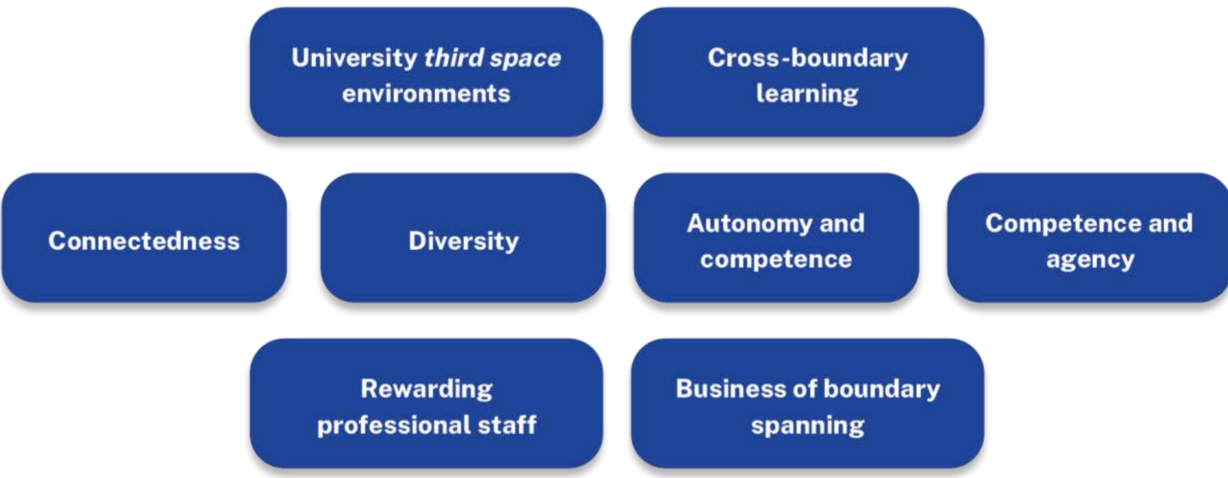

Figure 7.1 The main areas addressed by the recommendations for TU and professional staff

Table 7.3

Recommendations for TU Leaders and Professional Staff

	Recommendations
University *third space* environments	The TU *third space* profile is raised and reconceptualised as a space where academic and professional staff connect to collaborate, form partnerships and innovate together. Collaboration between professional and academic staff is normalised as a continuum of collaborative partnerships, and becomes a fabric of TU professional life in order to build university collaborative capital. The TU leadership promotes a shared culture and common goals, thus connecting staff for the purpose of collaboration. Collaboration is acknowledged consistently by all staff managers as a value generating set of activities that leads to the release of the creative energy of individual actors, and that benefits TU through synergistic collective effort leading to enduring transformation.
Diversity	Diversity is positioned within TU *third space* environments as a critical resource to assist in navigating and transcending boundaries. University *third space* provides an ideal environment to attract the diversity of multiple actors. All staff who initiate and lead cross-team projects are encouraged to build teams that are based on diverse viewpoints, ideas, talents and many levels of expertise, rather than on just functional professional roles. In the context of increasing global university staff exchanges, in order to promote authentic intercultural multi-site collaborative engagement, special attention is given to how staff perceive and use diversity in their communication at each level and stage of a project.

	Recommendations
	The TU managers accommodate diverse staff needs to maximise benefits for the organisation and for individuals.
Cross-boundary learning	For the encouragement of cross-boundary work practices, support is provided to professional staff who engage in practices from across multiple (other than their own) spheres of activity and professional practices. Professional staff are assisted (e.g., through practical training and learning resources) to deal with the potential challenges that may emerge at various levels (institutional, interpersonal or intrapersonal) of boundary crossing: • at the *identification/contestation* stage – to minimise the negative effects of assumptions, biases and *othering* practices, and to progress to the next, productive and generative stage; • at the *coordination* and *reflection/reconciliation* stages – to employ specific techniques of reflection for *making* and *taking perspectives* in order to introduce and use a dialogical approach to collaboration focusing simultaneously on the unity and the diversity of the team; • at the *transformation/reconstruction* stage – to enable transformative practices to be achieved and to endure.
Autonomy and competence	Individual needs for professional staff autonomy are considered and supported accordingly, where it is practically possible to do so. Professional staff are supported in their abilities and desires to: • use, share and disseminate competence and knowledge; • be included in shaping a collaborative project's direction and solution; • deliver meaningful contributions to the broader university domains and to the wider communities within and outside TU.

	Recommendations
	The competence of professional staff is valued, recognised and further developed. Competence is recognised as consisting of the core expertise required for professional work and of higher order capabilities, such as a global mindset and an ability to transcend multi-level boundaries.
Competence and agency	Nominating professional staff for various cross-university collaborative projects is a legitimate way of activating those staff who may feel less confident in taking the first steps. Nomination needs to be founded on a manager's genuine trust in a person's abilities and in the value of her or his future contributions. Creating simplified ways for professional staff to engage in various project and work opportunities outside their immediate work environments will enable them to try various roles without their feeling the need to relinquish their current jobs. Agency is equally expected to be activated, deployed and sustained by professional staff. This may occur through taking various initiatives, ranging from as small as putting forward an idea for discussion to larger and more complex project participation. Although the activation of staff may be generally perceived as the leaders' responsibility, professional staff need autonomously to generate and maintain energy, through taking initiative and through participating in and leading collaborative projects.
Rewarding professional staff	Professional staff are acknowledged and rewarded for their contributions and initiative taking based on their individual motivations, aspirations and ambitions.

	Recommendations
	While a customised approach to formal recognition is considered to be developed at the TU level, in order to make professional staff more willing to engage in cross-boundary collaborative activities, the following meaningful rewards may be used by the line managers and project leaders in order to provide meaningful and important appreciation and acknowledgement of staff contribution and participation, and to increase their feeling of *mattering*: • expressly articulated opportunities for staff to take part in the emerging collaborative projects; • support for the acquisition of new skills and competence; • subtle and personalised forms of encouragement and appreciation (e.g., email expressing gratitude).
Connectedness	As the increased staff connectedness leads to an improved access to professional staff with the required skills and competencies for a collaborative project, connectivity therefore needs to be embedded in the TU way of working. It may take forms on a space/time continuum conducive to staff collaboration, such as: • dedicated new and attractive spaces for staff and students to get together and learn about each other's work, ideas and interests; • in addition to physical spaces, spaces of visibility to promote new and emerging opportunities and projects for staff to know and consider their participation and contribution (e.g., an elevated and engaged use of organisational social media); • investment in time for staff to work together, transcending organisational, cultural and geographical boundaries, challenging traditional ways of working, generating new ideas, experimenting and translating ideas into practical solutions; • development of technological solutions that improve connectivity.

	Recommendations
Business of boundary-spanning	Boundary-spanning roles are recognised for their significance for connecting ideas and opportunities with people, mediating among multiple actors, groups and forms of knowledge and, generally, promoting a dialogical approach to boundary-crossing. Boundary-spanning activities are promoted as reflective, dialogical, conducive to collaboration and harnessing diversity by embedding these activities in the TU ways of working, thinking and working together. Boundary spanning is articulated as everybody's business to promote further and normalise university *third space* environments.

There has been deliberate omission of the audience that each group of recommendations addresses. The pragmatic constructivist nature of this research suggests that, working in unison, professional and academic staff and TU leaders achieve better outcomes in developing global mindsets and in activating and harnessing a diversity of ideas, initiatives and perspectives for the overall purpose of achieving TU collaborative advantage. The integration of these recommendations led to the development of the *"Conceptual framework of the university* third space *professional staff cross-boundary collaboration"* represented by Figure 7.2.

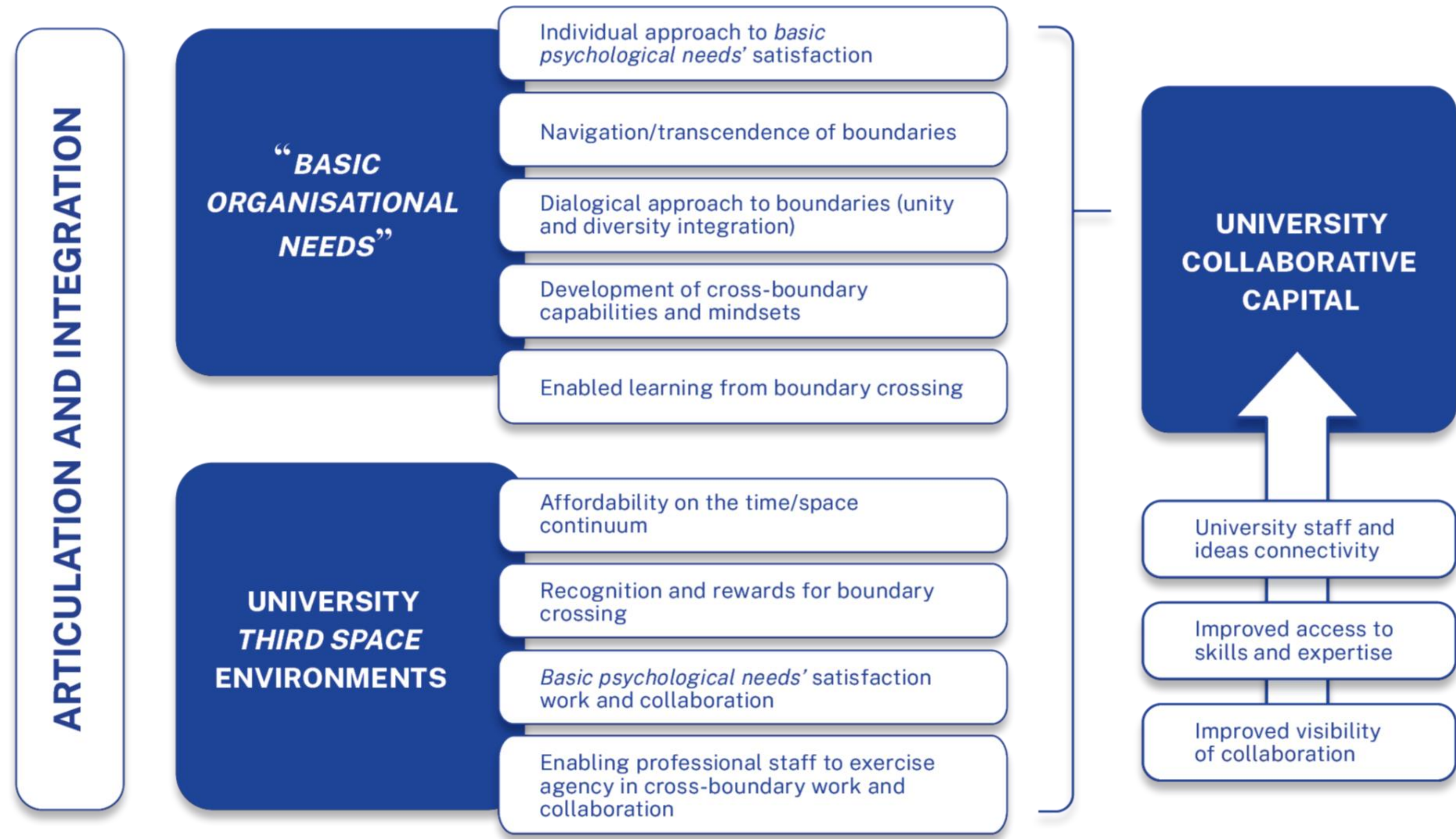

Figure 7.2 "Conceptual framework of the university *third space* professional staff cross-boundary collaboration"

The "*Conceptual framework…*" presents an articulation and integration of the "*Basic Organisational Needs*"' satisfaction and the main requirements from the university *third space* environments that are suggested to be a way of increasing professional staff motivation towards the university *third space* cross-boundary work that – if enacted – leads thereby to the increased potential for TU to reach and use its collective collaborative capital. Such capital is envisaged to be enhanced through improved access to professional staff members' skills and talents, increased connectivity of and between professional groups and, ultimately, decreased invisibility of the TU collaboration between staff.

As one of the critical elements of the "*Basic Organisational Needs*"' satisfaction, the cultivation and development of professional staff cross-boundary capabilities and global mindsets are proposed to be a critical link among professional staff motivation, energy activation and management, and in enabling staff to feel better prepared and more inclined and confident to navigate and transcend multiple boundaries at the institutional, interpersonal and intrapersonal levels. An individual approach to the satisfaction of the universal needs within the "*Basic Organisational Needs*" framework should be considered in relation to the professional staff diversity of ambitions and aspirations. Such an approach may be beneficial in ensuring the more efficient use of professional staff skills and talents, especially in culturally diverse contexts. "*Basic Organisational Needs*"' satisfaction may need to be accommodated differently across different types of university *third space* environments, which are positioned on the continuum from full integration to full independence in relation to the core university activities of teaching and learning, research and engagement.

7.3 Conclusion about the outcomes of the "*Adaptive Qualitative Research Synthesis*" application

The application of the novel AQRS approach to data, which was elaborated in Chapters Five, Six and Seven, presented a way of analysing (*first order* themes developed

from the findings across the five cases and two phases of the research), systematising (*second order* themes) and interpreting (*third order* themes that were translated into actionable recommendations) the qualitative data. The outcome of the three-tier exploration of findings and of the interpretation of the developed themes not only provided answers to the three research questions, but also afforded the development of the novel concept of "*Basic Organisational Needs*" that was incorporated into the *"Conceptual framework of the university* third space *professional staff cross-boundary collaboration".* The framework presented an original way of conceptualising the connection among the key requirements from the organisational environment in order for professional staff to feel motivated to partake in collaborative *third space* work, thus increasing the opportunities for both the individuals and the university to realise their and its collaborative capital.

The research goals were achieved through the developed practical recommendations for the university and professional staff, which exhibited engaged research that contributed to the purposeful, productive and policy-informing enterprise (Major & Savin-Baden, 2010b). The developed recommendations were intended for diverse, intercultural contexts to assist with engaging professional staff motivation for further collaboration.

The next and final chapter presents an overview of the researcher's motivation for conducting this doctoral research. It briefly revisits the research goals, the main findings and the research achievements before moving to the discussion of the contributions to knowledge that this research has made. It concludes with closing comments on the researcher's imagining of the future of the university *third space* collaboration in the context of the recent and rapidly developing changes in the higher education sector and beyond.

Chapter Eight – Conclusion about the research findings, limitations and importance; the impacts of COVID-19; and further research

"I don't think at the moment we are using all the intelligence of the organisation. We're not using the professional staff….We are not using a diversity of ideas. I think, until we do, we're doomed." (*Harry, academic staff, TUA, Phases One and Two*)

8.1 Introduction

This final chapter of the thesis revisits the question of the researcher's motivation for this research and discusses how the research goal was achieved (Section 8.2). A summary of the main findings that contributed to answering the research questions is provided (Section 8.3), along with a discussion of the contributions that this thesis makes to knowledge within the higher education sector and in the broader research and organisational contexts (Section 8.4). As the doctoral research started in the pre-COVID-19 years, this chapter incorporates an initially unplanned section that reflects on the newly imagined futures living in the pandemic-affected reality and what this means for universities, Tropical University (TU) in particular, and for university staff collaboration (Section 8.5). The chapter concludes with a brief discussion of the research limitations that have been reframed as potential research extensions and as associated novel research opportunities (Section 8.6), concluding the thesis by reflecting on the importance of this thesis in contributing to the broader project of the social sciences and the humanities (Section 8.7).

The purpose of this doctoral study was to apply the concept of the university *third space* to gain an increased understanding of the use of university professional staff talent and what may need to be done for professional staff to be willing to collaborate across boundaries. As was noted in the literature (Graham, 2018; Ryttberg & Geschwind, 2017), and

as was supported by the participants' opinions (e.g., Joseph pointed out that "One of the real challenges is, if [the] project is about this *third space* professional academic managerial people working effectively together, we all need to know our staff and what their competencies are"), university professional staff are arguably not used to the full potential of their skills and capabilities (Ryttberg & Geschwind, 2017). If the full potential of all staff is not being unlocked, there is a risk for an organisation in failing to mobilise its collective energy and to strengthen its collaborative capital (Beyerlein et al., 2003; Huxham & Vangen, 2005).

Studies of contemporary university staff collaboration within the university *third space* environments are limited and, although it is a topic that has been attracting higher education researchers in the last decade (Birds, 2015; Botterill, 2013, 2018; Graham, 2013a, 2018; Gravett & Winstone, 2018; Hobson et al., 2018; Silvey et al., 2018; Whitchurch, 2012, 2015; Whitchurch & Gordon, 2017), the studies that focus specifically on professional staff working with academics in the intercultural and cross-campus university contexts are still few. As one research participant stressed, there are various hurdles on the path towards staff working together, with an absence of connectedness between academic and professional staff and not knowing professional staff's competencies and talents being just two of them.

By exploring how the concept of the university *third space* was interpreted by staff working in the environment of local and global impacts, this thesis has shown that, despite variances in intercultural, cross-campus and individual professional staff's expression of the needs required for working across boundaries, there were critical common requirements that were consolidated into a new conception of "*Basic Organisational Needs*". These "*Basic Organisational Needs*", interpreted through various university *third space* environments, were consolidated into the *"Conceptual framework of the university* third space *professional staff cross-boundary collaboration"* designed to assist university leadership and professional

staff in locating practical ways of increasing professional staff's willingness to collaborate across boundaries.

8.2 The researcher's motivation, the research goal and what was done to achieve it

A pragmatic motivation of the researcher, a member of the higher education professional staff community, was to bring into focus the intersection between research and practice, and to improve professional practice through illuminating the motivations and needs of professional staff in the context of university collaborative cross-boundary activities. Pragmatic (for the benefit of the university professional staff and leadership) co-construction, together with the research participants as *actors* in relation to the specific project *facts, opportunities, values* and *communication*, or communicative learning points, gained through collaboration, was at the core of the philosophical paradigm of pragmatic constructivism that informed and guided this research enterprise. As was observed through professional experience, and confirmed by reference to scholarly literature, there are many examples of professional staff invisibility (Birds, 2015; Botterill, 2018; Szekeres, 2004, 2006, 2011; Veles & Carter, 2016), and, likewise, there are several countervailing examples of professional staff agency being increasingly exercised in many university contexts (Davis & Graham, 2018; Gander, 2018; Whitchurch, 2018). The researcher embarked on this investigation of these collaborative spaces and of what may be the factors contributing to professional staff feeling more inclined towards entering those spaces characterised simultaneously by uncertainty, and the intermingling of professional identities, fusion of creative energies, and exchange of ideas and insights. The purpose was, through an exploration of a diverse range of those university *third space* environments (Whitchurch, 2008/2018), to illuminate the relationships between professional and academic staff working on cross-boundary collaborative projects to identify the learning that had been activated in the process.

By looking at the projects that were developed in different cultural contexts across one university's (TU) campuses in Australia and Singapore, the research pursued two objectives. Firstly, it supported the endeavours of contemporary researchers working on the university's professional and academic staff collaboration (Bossu & Brown, 2018). Secondly, this research contributed to closing the gap in higher education research on the topic of intercultural collaboration and the cross-boundary learning across diverse *third space* environments. It further contributed to the gradually maturing discussion of professional staff's roles in relation to, and in fulfilment of, university goals within continuously changing imperatives on the higher education landscape (Bossu & Brown, 2018; Hogan, 2011).

Having those objectives in mind, the ultimate research goal of exploring collaborative engagement and the efficient use of professional staff talents across countries with dissimilar higher education systems and cultural foundations (Graham, 2018) was accomplished. It was important, and will arguably continue to be important, to research *third space* collaboration focusing on professional staff – a large and diverse group of university actors who are critical to the success of any contemporary university. It was also important to locate the investigation within a broader intercultural context of two international university campuses, as it is in this age of global convergence (although considerably redefined by the recent events of the COVID-19 pandemic) that the higher education research enterprise needs to endeavour to break through the boundaries of one country and one education system (van der Wende, 2017). In a dynamic higher education organisational environment, the ways that professional and academic staff work together are continuously changing.

The research was designed with the complexity of these goals and objectives in mind. Multiple case study research, guided by the preliminary exploratory phase and continuously informed by the scholarly literature, formed the research design. An innovative data analysis approach, "*Adaptive Qualitative Research Synthesis*" (AQRS) – a modification of Noblit and

Hare's (1988) original meta-ethnography – was used to analyse, synthesise and interpret the findings from multiple case, two-phase research.

Finally, it was through the lens of one conceptual framework from the field of organisational sociology – *Boundary Crossing Learning Mechanisms* (Akkerman & Bakker, 2011a) – and a derivative *Multilevel Boundary Crossing Framework* (Akkerman & Bruining, 2016), supported by a psychological theory of motivation or Self-Determination Theory (Gagné & Deci, 2005; Ryan & Deci, 2000, 2017), that five dissimilar university *third space* environments (Whitchurch, 2012, 2018) were examined to illuminate the cross-boundary learning activated in those projects and the meaning of *basic psychological needs* and cross-boundary competencies expressed as essential by professional staff to support their collaboration.

8.3 A summary of the research findings

Analysis of the research findings along the pragmatic constructivism dimensions (*facts, possibilities* [and *challenges*]*, values, communication* and *actors*, as depicted in Figure 5.1 in Chapter Five) encompassed the development of the *first order* themes that emerged from each case and across two phases – discussion and synthesis – into eight *second order* themes to create a new understanding of the connection among all elements of the university professional staff *third space* cross-boundary collaboration.

From Phase One of the research, addressing the first research question (*How is the concept of the university* third space *understood within a broader local/global/glocal context?*), it became clear that, despite the impacts of local and global factors influencing the higher education sector and universities in Singapore and Australia, and persisting dualisms (e.g., the *othering* dualism of academic vs. non-academic staff [Macfarlane, 2015]) notwithstanding, professional staff working both in Australia and in Singapore were eager to partake in collaborative projects. It also became obvious that the talents and skills of

professional staff were being often neglected or invisible. Similarly, there were examples of the university spaces where professional and academic staff cross various organisational boundaries to work together and to share their competence, expertise and creativity, thereby valuing a diversity of insights and professional identities. It appears that at times there was no recognition given to professional staff who dared to cross boundaries and to venture into the unchartered *third spaces*. University *third space* was described by one of the participants as a "wasteland" (Mark, TUA, Phase One). It is an image of "nobody's land, belonging to neither one nor the other world" often used in *third space* and boundary literature. This often produces a "sandwich effect" (Akkerman & Bakker, 2011a, p. 141; see also Whitchurch, 2010a) for people crossing or working in between those sites.

Despite this darker side of the university *third space* phenomenon, what became clear was that many professional staff members took satisfaction from working outside, across and beyond various boundaries. It was professional staff and their needs, motivation and professional identities who came to the fore when discussing the university cross-boundary spaces and staff collaboration.

In addressing the other two research questions (*How do university professional staff in a single university across Australia and Singapore see themselves vis-à-vis* third space *collaborative work?* and *What can be learnt from investigating the intercultural, cross-campus and individual variances in professional staff members working together across boundaries?*), Phase Two of the research resulted in developing eight key themes from cross-case and cross-phase analysis. The essence of these eight themes was distilled into the three broad, composite themes:

1. When collaborating in the university *third space* environments, it is important to maintain organisational culture conducive to supporting professional staff autonomy, connections between staff and their feeling of relatedness; building their competence,

including cross-boundary competence; while acknowledging and supporting staff cross-boundary work. The persisting tension between professional groups means that the environment needs to be improved to increase connection between people using the common goals of innovation, creativity and progress, which may be achieved when collective effort is deployed to navigate and transcend boundaries.

2. Boundaries need to be interpreted on two levels for professional staff to be more inclined to collaboration: firstly, as a mechanism for learning; and secondly, and simultaneously, as the markers of difference and illuminators of diversity. Cultural contexts, globalisation and other factors impacting on university staff relationships within individual sites and across intercultural settings need to be carefully considered in order to maximise diversity and the learning potential of the boundary-crossing navigation.
3. *Basic psychological needs* for *competence*, including the overarching cross-boundary competence, and *relatedness* were expressed similarly across the Singaporean and Australian professional staff of TU, whereas the expression of the need for *autonomy* and motivation was different. It is important to apply nuanced multiple interpretations to these intercultural variances in order to avoid a unidimensional approach that may underestimate the importance of the cultural impacts on staff working together across boundaries.

Through interpreting these three *second order* composite themes, *third order* themes, or interpretations, were translated into a set of recommendations. *Third order* thematic development that transpired into actionable recommendations was part of the innovative AQRS approach, as was noted in Chapter Four (Section 4, Table 4.4). The developed recommendations (presented in full in Chapter Seven, and summarised visually in Figure 7.1) addressed the interrelated areas significant for TU's and professional staff's further

development through the cultivation of generative and collaborative *third space* environments.

A novel concept of "*Basic Organisational Needs*", developed through the interpretative stage of research, combined the following three levels of complexity, which were all required to be addressed in collaboration in order for the project or the activity to reach transformation, and to have impact on staff and on the wider university:

- the need for the satisfaction of professional staff's *basic psychological needs*;
- a dialogical approach to boundaries: navigation and, at times, transcendence within a wider understanding of the value of learning at boundary crossing; and
- appreciation and integration of a diversity of collaborating staff and of their ideas, insights and contributions.

The developed conceptual framework of the relationships among "*Basic Organisational Needs*"' satisfaction, the three cross-boundary learning mechanisms of *identification, coordination* and *transformation*, and diversity integration represented the connection and interdependence of conditions that were required for professional staff to be inclined to operate in the university *third space* environments working across multiple boundaries (displayed in Figure 7.2 in Chapter Seven). For TU, this means that, if all three conditions are met, there is an increased opportunity for all TU staff to be more connected and to have better access to professional staff members' skills and talent, thus making better choices about who needs to be part of collaborative projects, and, generally, for all staff to have an increased visibility and, potentially, acknowledgement of staff collaboration.

In this research, the meaning of the boundary-crossing competence (Walker & Nocon, 2007) within the university *third space* environments was articulated and interpreted by staff in Australia and Singapore. The concept was expanded to encompass not only communication and translational skills that enabled staff to be functional agents across

multiple contexts (Walker & Nocon, 2007), but also skills like creativity (imagining the outcomes of one's work for multiple users and appreciation of the aesthetic design) and user-centred design thinking, which enabled the beneficiaries of collaboration to take active part in the process of cross-boundary work. Cross-boundary competence was also interpreted as the possession of a global mindset, or a special "higher order thinking" that involved a certain visionary ability to be "mindful of the whole organisation rather than just focusing on your immediate work environment" (Paul, TUS, Case #2).

The effect of the satisfaction of the basic needs for *autonomy, relatedness* and *competence* (Ryan & Deci, 2000) on university professional staff's work engagement and work satisfaction was discussed within a small body of empirical studies (Davis, 2018; Davis & Graham, 2018; Graham, 2013c, 2018; Regan & Graham, 2018). This research portrayed various professional staff members' perceptions and needs through the lens of culture in all its fluidity, subtlety and rich ambiguity. It demonstrated that it was important to deploy interpretative acumen towards the findings from the intercultural research examining those findings from a dialogical position (Bakhtin, 1981, 1986) of multiple voices, cultures and viewpoints.

Finally, the research findings pointed out that, if the diversity of the collaborating actors and of their viewpoints within intercultural collaboration were not only an espoused value but also manifested through the project work while being actively pursued as a critical resource, the genuine transformation of practices was expected to occur (as was shown in four out of the five explored cases). Where diversity either remained a desired value, or became "activated" only when deemed possible and necessary, although a project may still achieve its intended goals, the full potential of the divergent perspectives and of the multi-voiced ideas and insights was not reached (as was demonstrated in one out of the five cases).

8.4 Contributions to knowledge within the higher education sector and beyond

In the last three decades, the topic of the university professional staff cross-boundary work and staff collaboration has been increasingly a focal point of higher education research, alongside the topics of professional and academic staff changing identities, the increasing professionalisation of professional staff and their contributions to the university. Traditionally, these topics have been discussed in the scholarly and practitioners' literature in Australia, New Zealand, North America and the countries of Europe, with the evidence of more recent and increasing development in the Asian countries. This research into the collaborative cross-boundary engagement of university professional staff can be defined as "pathtaking" (Macfarlane & Grant, 2012, p. 621): while being built on the foundational higher education research, it extended into a new territory of cultural impacts on professional staff needs, capabilities and cross-boundary competence in the context of the university *third space* collaboration. This extension demonstrated unique and timely contributions to the body of scholarly achievements of esteemed higher education research predecessors and contemporaries.

Contributions to theoretical and practical knowledge.

Expanding on and defining the concept of cross-boundary competence within the context of the university professional staff work, articulating a novel concept of "*Basic Organisational Needs*" that led to the elaboration of the overarching "*Conceptual framework of the university* third space *professional cross-boundary collaboration*" presented further developments of the existing research and the practical application of the university *third space* concept in diverse, cross-boundary, intercultural contexts.

Firstly, an improved understanding of the concept of cross-boundary competence and its interpretation within the context of university staff work can lead to a more comprehensive understanding of what professional staff require to develop within their skills'

toolbox to be able to work together with their colleagues, professional and academic staff alike, across various organisational and cultural boundaries. This theoretical contribution in the form of an improved understanding of the meaning and importance of *competence*, perceived as one of the *basic psychological needs* within the Self-Determination Theory framework (Deci & Ryan, 2000; Ryan & Deci, 2000, 2017), has a practical implication for professional staff's professional preparation and skills development. As was identified in this research, it is critical to include cross-boundary competence development in staff training programs, as this competence is more important than technical and other job-related skills for successful cross-boundary intercultural collaboration. This competence encompasses such elements as translational and communication skills, and cultural and global mindsets, accompanied by an appreciation of diversity and the ability for (self)activation that are all critical for effective operation within the university *third space* environments.

Secondly, an application of a fruitful combination of the psychological theory of motivation (Ryan and Deci's [2000, 2017] Self-Determination Theory) and the sociological conceptual foundation of *Boundary Crossing Learning Mechanisms* (Akkerman & Bakker, 2011a) within the *Multilevel Boundary Crossing Framework* (Akkerman & Bruining, 2016) resulted in the generation of the new knowledge that advanced the understanding of the complex professional collaboration, organisational boundaries and the role of individual actors and agency within the cross-boundary *third space* environments. A novel concept of "*Basic Organisational Needs*" provided an overarching perspective of a synergistic contribution required from the organisation (university) and the actors (professional and academic staff) in order for a collaborative project to achieve its full transformational capacity. On a practical level, this necessitates the university to supporting the collaborative efforts of its staff, promoting the culture of appreciation of diversity of its actors and their insights, and dismantling actively various boundaries, thus facilitating access to the skills and

talents of professional staff, and enabling professional staff to contribute to university-wide collaborative projects. A university that promotes the satisfaction of "*Basic Organisational Needs*" is claimed to enable professional staff's *basic psychological needs*' satisfaction, thus contributing to these staff feeling more inclined to collaborative work.

The developed "*Conceptual framework of the university* third space *professional cross-boundary collaboration*" provided an articulation and integration of the concept of "*Basic Organisational Needs*" and the generative university *third space* environments in which recognition of professional staff for boundary crossing and collaborative work is being activated; individual approaches towards staff needs for autonomy, competence and relatedness are implemented; time and space are afforded to staff who cross and transcend boundaries in pursuit of collaboration; and professional staff, in turn, exercise agency and initiative to engage actively in working together with their colleagues. A practical interpretation of this new conceptual framework is that, if "*Basic Organisational Needs*" are satisfied across various university *third space* environments that afford generative conditions for staff collaboration, university leaders and all staff will be able to connect actors and ideas, improve access to staff skills and expertise, increase the visibility of collaboration and, ultimately, enhance the activation of the university collaborative capital.

Thirdly, this doctoral research showed the advantages of building on the concept of the university *third space* (Whitchurch, 2008c) in one particular university and of bringing it to the heart of the university's mission of local relevance and global reach, which is a critical mission of many if not all universities in Australia and across the globe. These insights bring the discussion of university staff ways of operating together to the qualitatively new level of global interconnectedness and richness of diversity. The relevance of this research therefore extends beyond the researched university, with its findings likely to be applicable to other universities in Australia, Singapore and the wider Asia-Pacific region.

Contribution to higher education policy.

For the higher education sector and for other universities in Australia and in Singapore in particular, the recommendations outlined in this research provide advice that any university leadership might need to look into implementing for professional staff to assist them in dealing with the potential challenges of cross-boundary work, and in cultivating their cross-boundary capabilities and mindsets, while rewarding them for their initiative and contribution in relation to collaborative projects, thus increasing their willingness to take part in future *third space* collaboration.

Most importantly, considering that this research was undertaken with the professional staff and their identities and collaborative capacity in focus, the recommendations stress the importance of professional staff agency. The activation of staff may be generally seen as the leaders' responsibility. Professional staff, however, need to generate and maintain energy autonomously through participating in and leading collaborative projects. This may be through taking initiatives ranging from as small as putting forward an idea for discussion to participating in larger and university-wide projects. By not waiting to be "invited" into *third space* projects (as several participants indicated), and by taking action to join projects, professional staff may be able to exercise their autonomy and connectedness with other professional groups, while making their skills, talents and capabilities known to the wider university community. By enacting their agency, they will be able to continue contributing "in a significant way", as the theme of making significant contributions to others and to the university was common across all professional staff who participated in the research.

These recommendations, which underpinned the development of the "*Conceptual framework of the university* third space *professional cross-boundary collaboration*", were developed with the view of influencing higher education policy and practice. They addressed the importance of including cross-boundary competence development in the professional

staff learning and development programs. They promoted the recognition of boundary-spanning roles for the success of university-wide collaboration. The recommendations also addressed the criticality of exercising individual approaches to developing *autonomy, competence* and *relatedness* of professional staff operating across diverse, culturally dissimilar contexts. Similarly, they addressed professional staff and the ways that they can exercise agency and promote self-activation towards more collaborative future work. The innovative approach that the development of these recommendations took was in addressing professional staff and university leadership without differentiating the responsibilities between the two groups, thus recognising the interconnectedness and commonality of an ultimate purpose of enhancing the university collaborative capital. It was therefore recognised that, in connecting diverse actors, joining their individual agencies and activating their energies, the *transformative capacity* (Giddens, 1984, 1986, 1991) of university staff collaboration has a higher likelihood of actualisation.

Methodological innovation.

A novel AQRS approach to data analysis reduced the distance between the final interpretations and the research participants by selecting the primary data sources, thus minimising a bias that is a common shortcoming of traditional qualitative research syntheses (including meta-ethnography), all of which work with secondary data sources (Major & Savin-Baden, 2010b; Sandelowski & Barroso, 2007). The novelty of this methodological adaptation was that the *third order* themes (interpretation) were directly reconceptualised into the recommendations for the university (professional staff and leadership), having a potentially wider impact on the higher education professional practice, which made this research a purposeful and productive enterprise (Savin-Baden & Major, 2010).

The AQSR method, developed and applied to this research, provided a unique explanatory power for the interpretation of the research findings, the three-stage thematic

development and, as a final (third) step, the translation of the themes into a set of actionable recommendations for higher education leaders and practitioners. The analytical power of the developed approach provided a tangible way of illuminating a highly intangible abstraction of *third space* as it was explored through five diverse cases of university professional staff collaboration. The method provided a basis for making analytical generalisations drawing on findings that were analysed through multi-disciplinary perspectives. It can therefore be commended to other researchers working in *third space* research or with equally complex and elusive concepts within higher education research and in the inter-disciplinary environment.

This section presented a summary of the contributions to various – theoretical, practical, policy and methodological – knowledge domains that this research made. The next section looks at the emerging significance of this research in the view of a social, political and economic event of an unparalleled gravity that occurred early in 2020, which is likely to have continued reverberations in all spheres of professional activities.

8.5 A "normative-normal", a "new-normal" or a condition of *risk society*: The impacts of COVID-19 on the university *third space* environments

As this thesis was being reviewed and edited, an unprecedented event happened in March 2020 that set in motion a whole series of social, political and economic changes affecting the world. The coronavirus disease 2019 (COVID-19) led to the most devastating crisis of public health in over a century (Rose-Redwood et al., 2020), with far-reaching impacts on the global economy. During this pandemic, the hyperconnected global world has been disrupted by the onset of the novel coronavirus pandemic. The crisis developed rapidly and continues to unfold, impacting on nations, countries and industry sectors largely unprepared for the changes.

Higher education is one such sector undergoing changes on a national and international scale that are affecting academic and operational paradigms simultaneously.

With the drastic changes to the domestic and international student markets and to people's cross-border mobility, emerging risks to financial viability, resourcing and technological capacity, and changes to state and national policies impacting on universities' ability to operate, staff across universities worldwide are rapidly coming to the realisation that the traditional ways of teaching, learning and research alongside university governance and management will be redefined forever.

Universities across the globe continue to face the enormous challenges of staff returning from organisational shutdowns that were introduced to prevent the spread of the disease, which encompassed the modalities of staff working remotely, away from campuses and students studying entirely online. The imperative of the *physical distancing* (Burns, 2020) redrew almost immediately the spatial boundaries, and introduced a new meaning of connectedness and collaboration. University leaders are now presented with multiple choices and largely unpredictable scenarios of responding to the inevitability of changes.

At the time of the writing of this chapter, TU, including its campuses in Australia and Singapore, like many other universities across the Asia-Pacific and beyond, is considering carefully the dilemma of whether to allow staff and students to return to campus or to continue operating from a distance. This question is inextricably connected with the question of what the near and distant future will look like, and whether a "return" and "normal" are being conceptually incorporated into the vision(s) of the future. Acknowledging the highly speculative nature of this discussion, it is nonetheless possible to entertain three conceptualisations of a new vision of the university future as they advance the discussion of the future university *third space* collaboration: a "new-normal"; a "normative-normal" (Oswick, Grant, & Oswick, 2020, p. 2); and a *risk society* condition (Beck, 1992).

Firstly, COVID-19 changed TU operations and academic and staff collaboration within a very short time span of two to three weeks. Resources were mobilised rapidly,

accompanied by the activation of the creative energy (Davis, 2018) of all staff, professional and academic alike. The fast digitalisation of learning materials saw academic staff working relentlessly to ensure that students were enabled to study entirely online. The work on the transitioning of courses into the digital environment and on assisting academic staff with the new modality happened with the support and unwavering dedication of professional staff, who demonstrated initiative, agency and ability to adapt to the new environment rapidly, and who worked collegially with academic colleagues and students to achieve what looked like an unachievable task at the start. New solidarity and collaboration, despite the constraints of the physical boundaries in the face of an unravelling crisis, are a condition that TU would like to maintain. People's adaptability and resilience, however, are finite resources, as a participant in this research indicated, and, once they are depleted, they take time to replenish. The question is, therefore, how sustainable this desirable and desired "new-normal" (Oswick et al., 2020, p. 2), characterised by continuous changes, a new level of collegiality and increased collaboration between professional and academic staff, and the unleashed collective capacity to innovate and design novel solutions for students, is, and how it can be sustained in the future.

Secondly, many TU staff and students desire to return to the old "normal", or a "normative-normal" (Oswick et al., 2020, p. 2). Social disconnect was caused by a prolonged state of isolation and by the effects of the emerging boundaries introduced by the increased use of technology, which was used previously only in the context of support and assistance. Those external impacts were combined with the overall state of anxiety that both academic and professional staff feel about the future of university jobs, the rapidly changing nature of work and the privileging of emerging new kinds of skills over the traditional professionalisms. A new discourse of the essential nature of certain jobs introduced new bifurcations (*essential/non-essential staff*), which superimposed a nearly forgotten traditional

academic/non-academic university binarism. This state of uncertainty continues to destabilise and reshape the relationship between professional and academic staff, and it is unsurprising that many are motivated to restore the pre-crisis normalcy that privileged the continuity, familiarity and comfort of traditional personal professional relationships and organisational boundaries.

Thirdly, a new university *third space* may be imagined if any reference to "normal" or "post" (post-pandemic) is obliterated. Beck (1992), in his social analysis of *risk society* – an inherent condition of the late 20th century's modernisation and globalisation, stated that "we are experiencing a transformation of the foundations of change" (p. 14). Nearly three decades later, the events of the pandemic gave rise to a new narrative of the virus, which is portrayed as "a powerful global agent" (Zinn, 2020, p. 2). The rapid ontological shift that occurred in people's minds, aided by the media accounts and the health reports of the global virus spread, disguised what were the attendant characteristics of the industrial society with its constant production of risks of all kinds. In Beck's powerful account of the conditions of industrialisation, the flexibility of work and work times, the blurring of the boundaries between workplaces and homes, and continuous underemployment through the proliferation of technology *inter alia* have always been part of the industrialised way of life (Beck, 1992). The pandemic of 2020 did no more than illuminate those conditions that are simultaneously the inherent risks and opportunities afforded by industrialisation. Returning to the discussion of TU professional staff and the new ways of university staff working together, if human agency is once again reframed as professional staff who participated in this research indicated as the ability to contribute to the whole of university projects and to make a difference, and in Giddens's (Giddens, 1984, 1986, 1991) terms as *transformative capacity*, then the university *novel third space* may be imagined not as a perpetual state of crisis but rather as the collegial effort of professional and academic staff being prepared to engage with continuous change;

being not anxious, but rather adaptable, and motivated by collaborative innovation and by the newly discovered capabilities afforded by working together on solutions to the ever emerging challenges of the contemporary *risk society*. In the current conditions, which continue to be defined by the impacts of the pandemic, the concept of "*Basic Organisational Needs*", which was developed in this research, appears to have an increasing importance. It is through the interconnectedness among the ways that professional staff exercise their autonomy in their work collaboration, how they interpret their cross-boundary capabilities and how they develop connections in the highly digitalised new reality, the modes of staff dialogical engagement with the newly redrawn boundaries, and the amplified appreciation and integration of the diversity of all university actors' contributions that TU will be able to turn many risks of the future into future opportunities to be enacted by professional and academic staff in the *novel third space*.

8.6 Conclusion about the research caveats and insights into further "pathtaking" and "pathmaking" research possibilities

The caveats that are made explicit in this section do not diminish the significance of the research or the relevance of its outcomes, but can instead be translated into further research opportunities. Firstly, among the research design limitations addressed in Chapter Four (Methodology), one limitation of the research design may be interpreted as the limitation of the whole research project. A small number of interviewed professional staff, especially in Phase Two, across five *third space* collaborative projects presents a further research opportunity to examine the emergent insights accessing a larger number of participants through additional collaborative projects. In addition, a fairly small number of participants from Singapore prevented a definitive conclusion to be drawn from the exploration of the dissimilar intercultural contexts. Those limited findings, analysed with caution, can be strengthened by using a larger sample of professional staff working across

Australian and Singapore campuses. There is a strong argument in favour of more in-depth research to explore further the significance of the underlying reasons for the identified, culturally endorsed variances (Ryan & Deci, 2017).

Secondly, the unique nature of some of the cases included in this research is an indication that an increasing number of these cross-boundary collaborative projects will be happening more frequently, which will create opportunities to revisit those cases or to extend the research by including staff working in other universities in Australia, Singapore and the wider Asia-Pacific. Comparing *third space* projects and variations between the ways that the professional staff in public Singapore universities and those working in private educational institutions (like TUS) express their needs for *autonomy, competence* and *relatedness*, and analysing which learning becomes activated during boundary crossing in dissimilar organisational contexts, could become a generative stream of "pathtaking" (Macfarlane & Grant, 2012, p. 621) research to broaden the investigation in this thesis of professional staff *third space* collaboration.

Thirdly, in the context of the pandemic, in these times that continue to be critical for the universities, it is important to understand how professional staff perceive their rapidly changing roles and identities, and how their skills and talents contribute to ensuring that higher education institutions survive and then go on to thrive in the future.

A final proposition to stretch many contemporary researchers' imaginations is for new research about the university *third space* collaboration to include environments where human actors (university staff, students and other actors) work and learn together with Artificial Intelligence, thereby completely redefining the notion of the university *third space*, professional identity, competence and learning across boundaries. This "pathmaking" (Macfarlane & Grant, 2012, p. 621) sociological research into challenging the notion of

competence (e.g., Preston, 2017) is one promising beginning of such proposed future university *third space* research.

8.7 Final reflections after conclusion

When this thesis conclusion is drawn, two final reflections need to be presented for the readers' judgement. These ostensibly unconnected thoughts are: firstly, the relevance of social (including higher education) research to professional practice; and, secondly, the importance of *third space* research for higher education in particular, and for humanity in general.

In the light of public funding's ongoing and potentially further decrease for studies and research in the social sciences and humanities (in Australia and globally), there is an increasing pressure for social scientists to demonstrate the relevance and utility of their research. Relevance is often being perceived as a boundary object whereby policymaking/funding organisations and social scientists accept the binding nature of relevance without questioning the need for its interrogation (Jacob & Jabrane, 2018).
If the essentialism of relevance, agreed tacitly by interacting parties, is reconceptualised and apprehended as knowledge – knowledge that is being attained through research by engaging with diversity, giving voices to research participants and valuing multiple viewpoints, and then being provided to people at work for their further (re)thinking and using – then the boundary between research and practice becomes thinner with the possibility of disappearing entirely. Myles, one of the participants in this research, expressed the advantages of boundary-challenging practice by saying that "There still are those organisational boundaries in place…in people's minds. I think we'd all benefit if they – it's kind of like countries – if those boundaries disappeared, and life should become better."

In answering Myles's and other research participants' call, knowledge acquired through this research will be applied to working on making the boundaries disappear by

asserting the powerful connectedness of human beings through space. The *third spaces* illuminated in this study represent creative interaction between cultures, professional practices and insights, and, similarly, internal tensions that is characteristic of contemporary university cultures and higher education at large. Despite these contestations, *third space* gives agency to its occupants to question the deeper meaning of higher education and, in their knowledge quest, to transcend boundaries, discernible and putative alike, leading ultimately to the further empowerment of selves and the improvement of their relations through mutual appreciation, genuine curiosity and enduring respect.

At the present time, when individuals and societies are rethinking global connectedness and *borderlessness* in the light of digital acceleration – the emerging conditions that pose critical questions about human uniqueness and individuality – it is an important reminder that all individuals are "intrinsically spatial beings, active participants in the social construction of [their]…embracing spatialities" (Soja, 1996, p. 1).

The relevance of knowledge about *third spaces* and through *third space* environments thus becomes critical to understanding how human beings navigate the boundaries of professional identities, and how interactions and relationships change through working lives. Transcending tensions and controversy and moving towards collegiality, pluralism, respect and knowledge sharing, people working in the *third space* acquire new perspectives that this coming together and becoming connected afford.

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Appendices

Appendix 1

Demographic Questionnaire (Phase One and Phase Two)

As one of the participants selected to take part in the case study, it would be helpful to understand your background and experience working in universities. Please take a few minutes to fill out this survey.

What is your gender? (*tick one*)

☐ Male ☐ Female

What age group do you belong to? (*tick one*)

☐ Under 30 ☐ 30 – 40 ☐ 41 - 50 ☐ 51 – 60 ☐ 61 and over

What best describes your ethnicity?

☐ Australian ☐ Chinese ☐ Malay
☐ Singaporean ☐ Indian ☐ European
☐ Other (*please specify*) ______________________________

How long have you been working for [Tropical University]? (*tick one*)

☐ Under 1 year ☐ Between 1 and 3 years ☐ Between 3 and 5 years
☐ Between 5 and 10 years ☐ 10 years and over

Have you worked in other universities? (*tick one*)

☐ Yes ☐ No

What contract are you currently employed on? (*tick one*)

☐ Professional & Technical/Research Support ☐ Academic

What type of work do you primarily do in your current role? (*tick not more than two*)

☐ Administration support ☐ Academic services ☐ Library services
☐ IT support ☐ Marketing services ☐ Managerial
☐ Teaching and research ☐ Teaching only ☐ Student services
☐ Research support ☐ Financial support ☐ Lab and technical support

☐ Other (*please specify*) ____

Do you currently work full- or part-time? (*tick one*)

☐ Full-time ☐ Part-time

What level is your current role? (this refers to Higher Education Worker (HEW) levels 1-10 and above, Academic levels A, B, C, D, E)

Please specify: ______________________________

How long have you been employed in this role?

Please specify: ______________________________*(years)*

What is the highest educational qualification that you hold?

☐ High School certificate ☐ VET/Technical College qualifications
☐ University (Bachelor's degree) ☐ University (Master's degree) ☐ Doctoral degree
☐ Other (*please specify*) ______________________________
☐ Currently studying (*please specify*) ____________________

Ethics approval: HREC REF NO: H7071

Thank you for taking the time to fill out the survey. When complete, please email back to [Researcher's email address] or hand in at the interview.

Appendix 2

Interview Guides (Phase One and Phase Two)

Phase One Interview Guide

Ethics approval: HREC REF NO: H7071

Thank you for completing the Consent Form and the mini-demographics questionnaire.
As I described in the Information Sheet, I am working on my PhD research exploring how professional staff working at [Tropical University] (TU) in Australia and in Singapore interpret collaborative engagement - working across professional, cultural and geographic boundaries. The project consists of two phases. Phase One is an exploratory study that will assist me in understanding the university phenomenon of *third space*. Phase Two is a multiple case study that will focus on gaining professional and academic staff insights into collaborations that occur in various organisational and cultural contexts. The outcomes of the project will help to inform diverse universities' leadership and to assist professional staff in building expertise to work collaboratively with academic staff across borders.
I have asked you to participate in this research because you are a TU manager who has been leading a team of diverse staff who may have engaged and/or may be currently engaged in various collaborative projects.
Do you have any questions for me?
If you are happy to start, I would like to tell you that I will be recording our session in order for me to remember and to interpret correctly details of our confidential conversation and to do justice to what you have shared with me.

Introduction/opening questions

Q1 Specific project/engagement:
Firstly, I'd like to ask you to think back on your work as the **___,** working here at TU. Can you tell me about a work project when you had a range of diverse staff – staff of diverse work portfolios – working together?

Were there any academic staff involved in the project? Any professional staff? Any other parties outside TU?

What was your role in the project?

How did the project come about?

What was the project goal or outcome that the team needed to achieve?
Did it involve working across campuses? Or with any overseas staff or partners?

What was the academic staff contribution to the project? What about professional staff?
Were the roles and responsibilities that staff undertook during the project part of their everyday work or were they different? Completely different or partly different?

How would you describe the relationships between various staff members during that engagement? Anything in particular that you can tell me about the engagement between professional and academic staff?

Did staff have to take part in meetings? For example, to discuss the project progress?
How did staff communicate (face-to-face, online or both)?

Do you remember anything that staff – either academic or professional – commented to you during or after the project?
Was there anything unusual about the way that staff worked together on that project that you noticed?
How was "life after the project" like: did all staff go back to their substantive roles and responsibilities, or move to any new roles/projects?
In your opinion, was it a successful project?
How was the work on the project recognised within the team or by the wider university community?

Intermediate questions

Q2 Other* third space *projects:
If there are any other such projects that stand out in your mind - do they involve staff of diverse portfolios working together, or staff working on their own just performing different – diverse - roles?
Where do such projects usually take place at TU?
How do they usually start?

Q3 Working with professional staff:
Tell me about your experiences working with professional staff in these projects…
Do you hear from professional staff whom you supervise/d that they would like to try another role?
To move to another area? To be more involved in academic or other types of activities?

In your team, do you know of many professional staff who work across both types of roles (academic and professional)?
How do you think working in these cross-boundary roles affects professional staff? Is it good for professional staff to reach out to these new roles? What do you think might be the dangers of such cross-boundary work:

- for professional staff
- for academic staff
- for the university?

What would professional staff need in order to be able to work on collaborative projects?
Would they need additional qualifications? To what level? Of what nature?
What about TU managers – what would they need to do to assist professional staff to get there?

Q4 Working with academic staff:
We have been talking about professional staff working on those projects; can you tell me about your experiences working with academic staff in those projects…?

Q5 Organisation (TU):
In your role as the ___, can you think of any global and local factors that are affecting your role?
[*Probe fully*]
Do you think that these collaborative engagements between staff that we have been talking about are becoming more common at TU? Why do you say that?
Have you come across instances where you have perceived possible ways of achieving efficiencies (for example, in staffing or in other resources)?

Q6 Culture:
What about collaboration taking place across geographical borders? Tell me what you think about cultural influences: how culture – individual, national or organisational – affects professional staff who work on collaborative projects? Do you have any specific examples?

Closing questions

Q7 Values & identity:
Finally, what are your thoughts and feelings about cross-boundary work?
What does it mean to be a higher education professional in a contemporary university?
Are there any specific roles that require new types of professionals in our university? What kind?

How do you feel about the binary of the academic/professional staff community at TU?
Do you think that there are still unconscious biases that exist in our environment that allow us to see a person only as either a professional or an academic staff member?
Do you think that academic and professional staff pursue different professional goals?
How would you describe your professional identity?

Q8 Recommendations:
From the research literature that I explored, there are various types of *spaces* that are sometimes referred to as the "university *third spaces*" where staff with various job roles and professional identities collaborate. Some of these spaces are more integrated into the mainstream university activities (for example, library or teaching and learning services), and some are located on the margins, driven by market forces and the need to generate commercial income for the organisation. For the second phase of my research, I will be conducting a multiple case study to learn more about TU *third space* and how TU professional staff work across various boundaries.

From your knowledge of TU teaching and learning, research and community/industry engagement activities, can you please recommend a particular example of a collaborative project – similar to what we discussed earlier – for me to include in my case study?

Record the example, clarify the supervisor, get the recommendation of particular staff for individual interviews.

Wrap up

Thank you so much for your time and thoughts. Once again, I've recorded out interview and will be completing the transcription in the next fortnight. Once I've completed the transcription, I'd like to send you a copy so that you can review the transcript, and I'd appreciate any feedback that you can give me on the questions or the content of the transcript.

Phase Two Interview Guide

Ethics approval: HREC REF NO: H7071

Phase Two Interview Guide: Case study interview guide (adapted from Patton [2015])

Theme/Focus	Past	Present	Future
Opening/ background	Educational/ professional background. Past job roles	Current job role - key responsibilities	Plans to stay in the role/move to a different role (general career aspirations)
Specific case (*third space* – cross-boundary – collaborative engagement/project)			
Behaviours/ experiences	Experiences of working on the project	How project involvement impacted on current role	Working on similar collaborative projects in the future (likelihood)
Perspectives/ professional values and identities/cultural influences	Challenges/rewards; Perceptions of professional self-identity; Perceptions of professional identity of other project participants; Cultural influences (including professional group, organisational, national culture).	Current perceptions of professional self-value based on past experience	
Feelings/emotions	Feelings and emotions experienced while working on the project; attitude towards colleagues/towards project	Current feelings towards collaborative work	Motivations/desires to participate in or lead such projects in the future
Knowledge/competence (cross-boundary competence)	Specific knowledge/ education/skills required to work on the project	Specific knowledge/ education/skills that are required to work in *third space* crossing various boundaries	Specific knowledge/ education/skills that will need to be acquired to be more willing to work in collaborative *third space* environments

Thank you so much for agreeing to meet me today, and to complete the Consent Form and the demographics questionnaire.

As I described in the Information Sheet, I am working on my PhD research. I am exploring how professional staff working at [Tropical University] (TU) in Australia and in Singapore view collaboration with academic staff, industry partners and others.

I am interested to learn about how professional staff work across boundaries: boundaries of their role, job scope, geographical location (campus) and culture.

For my research, I am looking at various diverse projects where professional and academic staff work together in our campuses in Australia and in Singapore or across campuses. I will be looking into what makes professional staff collaborate, and what skills and competences they have or need to get to be more collaborative. The purpose is to help professional staff to build their collaboration skills. It is also to inform the university where we all need to support our professional staff in building their skills and competence.

Have you got any questions for me about my research? Are you happy to start?

I would like to tell you that I will be recording our session in order for me to remember and to interpret correctly the details of our confidential conversation. I am recording our interview to represent accurately what you are going to share with me.

Introduction/opening questions

- Tell me a little bit about yourself and your position here at the university.
- How long have you been in this current role?

Specific project questions (Facts/Experiences):

I have asked you to participate in this research because you were engaged in the project ____, which took place ___ months/year(s) ago. As I understand, the project involved collaboration between professional and academic staff; it also involved professional dealings between and across campuses.

- Tell me about this project that you were engaged in [*refer to the name/brief description of the project in question*].

Intermediate questions

<u>Opinions/values (Autonomy):</u>

- How did you become involved in the project? (*Probe if necessary*: did you elect to be part of it, or you were nominated? Who nominated you for this project?)
- Why do you think that you were selected?
    - *If self-selected, ask:* Why did you decide to take part in this project?
    - *If initiated the project*: What were the reasons that you decided to start this project? How did you start it?

- Tell me what your role was in this project.

- How would you describe this project? (*Probe if necessary:* For example, was it a "business as usual" project or a special one?)

- What do you think about the project outcome? What makes you say that?

<u>Opinions/values (Diversity and Relatedness/Professional identity):</u>

- Who were the other staff working with you on the project?

- Where were the people on the project drawn from?

- Were there any people from outside the university on the project?

- How would you describe your working relationship with other project team members?

    - Describe any challenges that you had working together.

    - How did you overcome the challenges (if they arose)?

    - How did project members manage any differences of opinions/ideas?

    - How did professional relationships change between project participants as the project progressed? What was it that most surprised you about the relationships on the project?

- How did you manage your main job and working on this project? If you had to prioritise the project or your main job, how did you manage the conflicting demands and needs of each of these roles?

Knowledge and learning (Competence):

- What was your understanding of what you needed to do at each stage of the project? Whom did you reach out to asking for advice or help?

- What did you learn working on this project?

    - What were the skills required from you apart from your main area of expertise?

    - What additional skills or training did you need to acquire before or while working on the project? What were the skills that you wish that you had before you started on the project?

    - What did you learn about yourself working on this project? What about other people/other teams within the university?
      What about another organisation(s) [*if applicable*]?

    - What is your style when you work in a team? *Probe if necessary:* do you prefer teamwork or working individually?

- Who do you think was able to contribute the most and why?

Organisational culture (support, environment, values):

- To what extent was the university supportive of the project? How supported did **you** feel working on this project?

- How adequate were the resources that you and other team members were provided with on the project in order for you to succeed?

- So you've told me about the resources provided — one important project resource is time. How adequate was the timeframe allowed for this project?

- How important was it for you to be able to make decisions while working on the project? What kind of decisions were you making?

Feelings and attitudes (future motivation and aspirations):

- How happy were you to have been part of this project?

- What did you enjoy most/least?

- What further opportunities have arisen for you after you completed this project? Are there opportunities in a different work area?

- How happy are you to become part of a collaborative project again? What makes you say that?

- How likely are you to initiate and start a collaboration or a project yourself?

- What skills do you think that you will need to improve or learn to be able to work on collaborative projects?

Questions for professional staff only:

- How important is it for you to do different roles stepping out of your main job scope?

- Who do you think needs to provide opportunities for staff to work on various projects and to collaborate?
- How important is it for you to be able to engage with different people in our university?
- How satisfied are you with the job that you are doing?
- What makes you the happiest when you do your work?
- What type of recognition would you like to see for yourself when you work on something different from your main job? Whom do you think that this recognition may come from?

Questions for academic staff only:

- What do you think professional staff require to work on collaborative projects across boundaries (*clarify if required*: boundaries of professional group, geographical and cultural boundaries)?
- How important do you think that it is for professional staff to take initiative, step outside their jobs and collaborate with academic and other staff in the university and across campuses?
- What type of recognition do you think that professional staff may require when they engage in a project or in something that is different from their main jobs? Whom do you think that this recognition may need to come from?

Closing questions

- What else would you like to tell me about your experiences on this project?
- What questions do you have for me now?

Wrap up

Thank you so much for your time and thoughts. Once again, I've recorded out interview and will be completing the transcription in the next fortnight. Once I've completed the transcription, I'd like to send you a copy so that you can review the transcript, and I'd appreciate any feedback that you can give me on the questions or the content of the transcript.

Thank you

Appendix 3

Transcription Guide

Qualitative Data Preparation and Transcription Protocol (adapted for qualitative, semi-structured, one-on-one research interviews within the active interviewing framework [Holstein & Gubrium, 1995])

TEXT FORMATTING

Transcription of interview data was carried out according to the following rules:

1. Arial 10-point face-font is used.
2. All text begins at the left-hand margin (no indents).
4. Entire document is left justified.
5. Page numbers are included at the bottom right side of the page.

Labelling of the interview transcripts

Individual interview transcript includes the following labelling information at the top of the document:

Research phase: Phase One, Phase Two
Interview location: Townsville, Cairns, Singapore
Participant identifier: PA, PS, AA, AS
PA= Professional staff, Australia
PS= Professional staff, Singapore
AA= Academic staff, Australia
AS= Academic staff, Singapore
Date:

Example:
Phase One
Townsville
PA
28/09/2017

Documenting comments

Comments or questions by the Interviewer are typed using italic font to distinguish them from participants' responses. Participants' responses are typed in Roman font. Line spacing (1.5 lines) is used between interviewer and participant speech.

Example

Can you tell me about what happened on that day?

I can't remember much, but … I think I can remember …

End of interview

At the end of each interview transcription document, "END OF INTERVIEW" is typed in uppercase letters on the last line of the transcript.

CONTENT

Audio recordings were transcribed using key rules of verbatim transcription.

1. Each word and sentence was transcribed exactly as the participant said it, without paraphrasing and without changing mispronounced words or non-standard grammar.

2. Nonverbal communication and external sounds were all captured and indicated by inclusion in brackets.

Example:

Can you remember what happened?

I thought it was pretty lame… [giggles]

3. The following types of prosodic information (i.e., information related to such speech variables as rhythm, speed, stress and intonation) were captured:

Pauses – if participant paused briefly (two- to five-seconds long) between words or phrases, or trailed off at the end of a statement or question, an ellipsis was used. If a longer pause occurred, a double ellipsis was used.

Example:

Was there a reason for doing that?

I thought we could…you know…check this out…… But I guess I was wrong……

If a "filler" were used to fill the gap, to indicate thinking or waiting for a probe, all filler words were transcribed (e.g., hm, huh, mm, mhm, uh huh, um, mkay, yeah, yuhuh, nah huh, ugh, whoa, uh oh, ah and ahah)

- Emphasis - words or phrases that were emphasised by the participant or interviewer were identified in bold font.

Example:

Maybe it was wrong of me to think that ……No, it was **definitely** wrong.

Inaudible words or phrases

The sections of recording that were inaudible or difficult to decipher were dealt with by inserting two question marks enclosed in square brackets [??] and by highlighting this section in colour to draw attention to this section of the document when checking the text with or by the participant.

Example:

Where was it again?

I am not sure; guess it was when I stopped at Barnou [??], or maybe earlier …

Sensitive information

Information considered by the interviewer as sensitive was deidentified. If the participant used his or her own name during the discussion, the name of her or his colleague or another person within the organisation, this information was blotted out.

Example:

Then he said to me, "███, I think you should not do this".

REVIEWING FOR ACCURACY

All the interviews were transcribed by the interviewer. The transcripts were then checked

against the recording, and the transcript documents were revised accordingly. All interviewees were offered an opportunity to receive a transcript of their interview and to revise the document for accuracy and verification purposes.

SAVING TRANSCRIPTS AND AUDIOFILES

For confidentiality purposes, a list of interview participant names with their identification numbers assigned to them by the interviewer was kept in a file location separate to where the audio recordings of the interviews, participant signed consent forms and completed demographic questionnaires were kept.

Appendix 4

Excerpt from the Phase One Codebook (Collaboration theme and subthemes)

Collaboration subtheme name	Description of subtheme	Files	References
	Collaboration theme		
Collaborative advantage	*Define*: value and benefits that are seen to be derived from collaboration of staff (for either staff or organisation or both)	2	2
Building relationships and collegiality	*Define*: The value of collaboration is seen as building relationships and a sense of collegiality between staff. The focus is on interpersonal value rather than on the person-to-organisation value *Include*: getting to understand one another's contributions; building sense of loyalty and belonging to the team/group/unit where people work and are part of; equal treatment of one another and one another's roles and contributions to the project/activity; willingness to assist one another with overcoming challenges; building respect, good communication and relationships between staff and teams (care and positive feelings); breaking "us/them" barriers as a positive outcome of collaboration *Exclude*: adding value specifically for TU through creating efficiencies	13	26
Co-creation and exchange	*Define*: co-creation and exchange of knowledge, capabilities, experience and expertise; focus is on co-creating products or knowledge, building social and collaborative capital.	10	25

Collaboration subtheme name	Description of subtheme	Files	References
	Include: creating a product or knowledge together or sharing knowledge (whether it generates efficiencies or not); some overlap with "Efficiencies and value adding" as a few responses indicated value-adding through sharing knowledge and creating knowledge together *Exclude*: sharing or more efficient use of people/human resources		
Collaboration vs. competition	*Define*: benefits of collaborating as opposed to competing with one another *Include*: competition as detrimental to the outcomes of research funding application; collaborating in order to compete for funding; staff feelings about competition as opposed to collaboration *Atypical example*: a certain degree of constructive competition is seen as conducive to collaboration (competitiveness vs. traditional competition) *Exclude*: comments on benefits of collaboration without contrasting it with competition	5	9
Collaboration vs. silo work	*Define*: benefits of collaborating as opposed to working in isolation (insular groups or individual) *Include*: staff working in their own groups and not collaborating with other groups/individuals; certain projects/processes require collaboration as opposed to individual effort (e.g., accreditation); ways of operating as a legacy of being accustomed to work in isolated groups; siloed way of operating attributed to certain disciplines or organisational units; need for intermingling as opposed to continuing working in isolation; difficulties of breaking down the silos and examples of how it was done successfully (through project work and through centralisation of certain teams/services);	13	33

Collaboration subtheme name	Description of subtheme	Files	References
	isolated ways of operating brought in by organisational restructure; detriment of isolated work to creative thinking; diversity as an outcome of breaking silos (bringing diverse people/groups to work together); occasional benefits of working in small teams, although not explicitly in isolation *Exclude*: comments on benefits of collaboration without contrasting it with silo/insular/isolated work		
Efficiencies and value-adding	*Define*: the value of collaboration is seen as creating efficiencies and other value-adding outcomes to the university. The focus is on person-to-organisation value rather than on interpersonal value *Include*: achieving goals of the work/project; collaboration is seen as the only way of operating to achieve goals, and the staff collaboration is seen as the reason for organisational success; fluidity of human resources - more efficient use of human resources; saving on effort and time through collaborative efforts (e.g., joint research funding applications); some overlap with "Co-creation and exchange" as a few responses indicated value-adding through sharing knowledge and creating knowledge together *Exclude*: adding interpersonal value	13	50
Drawbacks of collaboration	*Define*: value and importance of creating and nurturing personal professional relationship between staff as these relationships were considered to be contributing to collaborative efforts and to the success of collaboration as well as bringing the internal barriers down *Include*: staff being embedded in the teams (e.g., PS into AS team) Generating the sense of loyalty and allegiance to the team/discipline or group of disciplines that the School used to represent; sense of bonding; importance of	6	11

Collaboration subtheme name	Description of subtheme	Files	References
	building personal attachment to the project and its success when involved in a complex, long-term collaboration; history of relationships; collegiality; notion of working as a family - a "way to go", especially in a smaller organisation. *Exclude*: staff having social events together and having fun to create a sense of belonging and to enjoy working together (there is a separate code for this theme)		
Frequency		0	0
Less frequent	Less common or frequent than before	4	7
More or same frequent	More common/frequent than before	11	18
Mode	*Define*: expressed ways that staff collaborate - i.e., across geographical borders, across professional domains (academic and professional staff); across organisational borders (TU and industry and/or government bodies), within or across academic disciplines and/or professional groups (colleges and divisions), routinely or on a basis of special projects	0	0
Across borders	*Define*: collaboration that occurs across the borders of geographical locations and across cultures *Include*: Australian campuses or across other than campus locations; TUA and TUS (national borders); examples of discipline groups that are more collaborative across geographical borders and of those that are less so; examples of successful cross-border collaborations (TUA and TUS) and challenges or preconceptions that exist while collaborating across borders; professional staff exchanges across borders; examples of mode of communication involved in cross-border collaboration	15	49

Collaboration subtheme name	Description of subtheme	Files	References
	Exclude: specifically, professional groups' collaboration without references to crossing geographical boundaries		
Across professional domains	*Define*: collaboration that occurs across or within the borders of professional domains: academic and professional staff domains in particular *Include*: academics collaborating with their peers (challenges and successes); professional staff collaboration with their peers (challenges and successes); academic and professional staff collaboration (challenges and successes); some crossovers with "Across borders" collaboration node; some examples coded in more than just one model (e.g., AS-PS and PS-PS); comments that PS-AS is not really required for any projects, or examples of when PS are not collaborating with AS; benefits of AS-PS collaboration; contrasting ways of how PS and AS collaborate (grounded in different professional identities) *Exclude*: general (non-group specific) comments on staff collaboration or benefits/challenges of staff collaboration	0	0
AS-AS	*Define*: collaboration that occurs within the borders of professional domains: among academics	5	9
AS-PS	*Define*: collaboration that occurs across the borders of professional domains: between academic and professional staff	15	52
PS-PS	*Define*: collaboration that occurs within the borders of professional domains: among professional staff	5	7
External and multidisciplinary (teams)	*Define*: collaborating across various disciplines and with external work units for a variety of needs and purposes - teams collaborating	28	91

Collaboration subtheme name	Description of subtheme	Files	References
	Include: curriculum review as an example of cross-disciplinary and cross-unit collaboration of the whole team (not just individual staff); participatory approach to whole team collaborating; collaboration between scientists and education researchers; lack of certain groups' collaboration with external teams and a number of suggested reasons (TUS); comparisons across a number of groups (some are more collaborative than others); group collaboration across geographical borders; collaborating with university alumni; benefits of working in diverse, multidisciplinary, multi-skilled teams *Exclude*: comments on individual staff collaboration across various borders		
Internal	*Define*: within unit/group collaboration not crossing any borders (geographical or professional) *Include*: critical view of internal focus of such within team only collaboration; benefits of within team collaboration (seamless communication, understanding, etc.); challenges related to leading a multi-disciplinary College as one team; lack of sufficient expertise within a single work team/unit	8	18
Routine	*Define*: collaboration of staff of various work units, teams, professional domains on an ongoing basis or through the process (as opposed to collaborating on special projects) *Include*: collaboration between staff that occurs routinely within special preparation or an organised approach; may be qualified more as collaborative relationship than as collaborations as such (people getting together, discussing matters, trying to understand one another's challenges, staff working closely with one another while running the operations); ongoing collaboration (such as PS developing AS skills in certain organisational processes) – could be	13	45

Collaboration subtheme name	Description of subtheme	Files	References
	happening with defined and fairly high regularity – collaboration around processes with a fairly established nature; invisibility of such collaboration *Exclude*: collaborative engagements for specific purposes - usually infrequent or ad hoc projects or specific purposes		
Special projects	*Define*: staff or teams' collaboration on special ad hoc or infrequent (large- or small-scale) projects, usually time-bound and purposefully set up *Include*: projects such as curriculum refresh, accreditation, product innovation, design and commercialisation; student employment opportunities enhancement; specific research projects; organisational process or system redesign and improvement; new academic program development and launch; benefits of getting staff involved in working on special projects; challenges for staff who get involved in collaborative special projects (overtime work, etc); staff working on such projects together (vision of roles and activities distribution) *Exclude*: collaboration around fairly well-established and rarely or minimally changed processes	18	77
Third parties and the industry	*Define*: collaboration between TU staff and external to university organisations, including industry *Include*: examples of disciplines or individual people within TU work units that and who have track record of collaborating with external organisations, including other universities, community (including volunteers) or health organisations and industry, whether it is for research, student engagement or other purposes	8	20

Collaboration subtheme name	Description of subtheme	Files	References
	Exclude: working with contractors or vendors on a project		
Origin(ator)s	*Define*: who instigates a collaborative activity or a project, or how these collaborative events arise	0	0
Discovery	*Define*: collaboration driven by the sense of discovery, new things, curiosity and innovation *Include*: curiosity, discovery and innovation	5	10
Location or space	*Define*: location or space of collaborative activities (by organisational or functional area) *Include*: research space; teaching and learning; planning activities (academic and professional staff coming together to plan program delivery and resources required) *Atypical example #1*: space is mentioned but corrected for frequency *Atypical example #2*: a group of staff ("management") or hierarchical level is mentioned as an instigator of collaboration *Exclude*: mode of collaboration (across borders, etc.), although there could be crossovers between these two codes	6	17
Need	*Define*: collaboration driven by the need (operational, disciplinary or other needs) or an existing/emergent problem that needs to be solved *Include*: operational or strategic need (e.g., academic program accreditation); organisational need or priority/priorities; research or training need (inability to continue using equipment in its current state)	15	48

Collaboration subtheme name	Description of subtheme	Files	References
Personal drive	*Define*: collaboration driven by a person – whether its purpose is to solve a problem or to discover new things – whether for personal interests or out of professional responsibility *Include*: personal/professional drive of people; unwillingness to accept status quo; professional responsibility in the face of the university or a wider community; combination of a need and personal drive *Atypical example*: comment that collaboration is not initiated by one person/person at any particular level	6	9

Appendix 5

Coding Hierarchies (Phase One and Phase Two)

Phase One Coding Hierarchy - Collapsed

Name		Files	Referen...	Created On	Created...	Modified On	Modified By	Color
ACTORS		0	0	10 May 2018 at 06:45	NV	22 Jul 2018 at 21:04	NV	
CONTEXT (UTS)		0	0	7 January 2018 at 20:24	NV	21 Jul 2018 at 19:19	NV	
IMPACTS I (GLOBAL LOC...		0	0	7 January 2018 at 12:55	NV	14 Jun 2018 at 05:57	NV	
IMPACTS II (CULTURE)		0	0	10 May 2018 at 06:44	NV	21 Jul 2018 at 10:22	NV	
MODE (CROSS-BOUNDA...		0	0	7 January 2018 at 13:05	NV	9 Jul 2018 at 19:47	NV	
PURPOSE (COLLABORAT...		0	0	7 January 2018 at 11:40	NV	7 Jul 2018 at 19:44	NV	

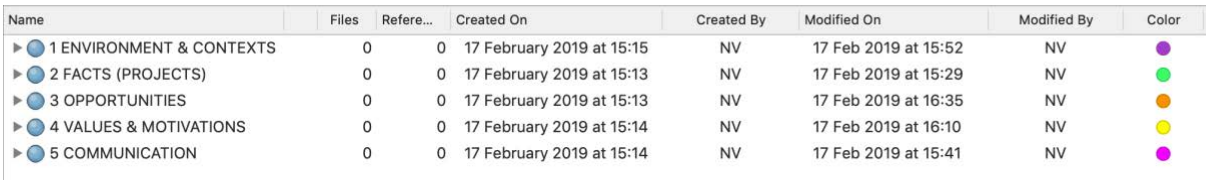
Phase One Coding Hierarchy - Semi-expanded (Excerpt)

Name		Files	References	Created On	Created...
ACTORS		0	0	10 May 2018 at 06:45	NV
Higher education professional identities		0	0	16 July 2018 at 14:26	NV
Conditions for CBW and COL		0	0	16 July 2018 at 14:25	NV
IMPACTS II (CULTURE)		0	0	10 May 2018 at 06:44	NV
Levels of culture		0	0	7 July 2018 at 19:51	NV
Diversity		0	0	7 July 2018 at 19:51	NV
Boundaries		0	0	7 July 2018 at 19:51	NV
CONTEXT (UTS)		0	0	7 January 2018 at 20:24	NV
Dualisms		0	0	26 May 2018 at 08:25	NV
Concept (mis)conceptions		12	71	20 May 2018 at 08:28	NV
Three types of UTS		0	0	20 May 2018 at 08:28	NV
Goals		22	79	8 January 2018 at 17:35	NV
MODE (CROSS-BOUNDARY WORK)		0	0	7 January 2018 at 13:05	NV
CBW advantage		0	0	4 May 2018 at 09:17	NV
Mode		0	0	4 May 2018 at 09:14	NV
Assumptions & risks		18	43	24 February 2018 at 11:47	NV
Concept		30	79	7 January 2018 at 13:50	NV
Attitude		16	32	7 January 2018 at 13:07	NV
IMPACTS I (GLOBAL LOCAL GLOCAL)		0	0	7 January 2018 at 12:55	NV
Glocal		0	0	14 June 2018 at 06:02	NV
Local		1	1	14 June 2018 at 06:00	NV
Global		1	1	14 June 2018 at 05:52	NV
PURPOSE (COLLABORATION)		0	0	7 January 2018 at 11:40	NV
Drawbacks of collaboration		6	11	9 June 2018 at 15:08	NV
Mode		0	0	29 April 2018 at 08:46	NV
Frequency		0	0	12 January 2018 at 12:45	NV
Collaborative advantage		2	2	8 January 2018 at 17:26	NV
Origin(ators)		0	0	7 January 2018 at 15:50	NV

Phase One Coding Hierarchy - Expanded (Excerpt)

Name	Files	Refere...	Created On	Created I
ACTORS	0	0	10 May 2018 at 06:45	NV
Conditions for CBW and COL	0	0	16 July 2018 at 14:25	NV
External environment	0	0	16 July 2018 at 15:09	NV
Financial support	4	10	16 July 2018 at 14:59	NV
Reward or recognition	17	70	18 July 2018 at 07:13	NV
Leadership	18	92	16 July 2018 at 14:59	NV
Opportunities	16	65	3 February 2018 at 15:32	NV
Organisational culture	19	60	16 July 2018 at 14:58	NV
Size and diversity	4	15	16 July 2018 at 14:59	NV
Time and space	15	38	16 July 2018 at 14:58	NV
Psychological needs satisfaction	0	0	16 July 2018 at 14:58	NV
Autonomy	23	88	21 July 2018 at 14:31	NV
Competence	19	71	16 July 2018 at 14:58	NV
Relatedness	26	152	16 July 2018 at 14:58	NV
Higher education professional identities	0	0	16 July 2018 at 14:26	NV
Meaning of HEPRO	18	44	8 January 2018 at 17:08	NV
PS roles	0	0	7 January 2018 at 11:04	NV
Supporting TU bureacracy	3	3	20 May 2018 at 16:49	NV
Creating or co-creating	13	23	23 February 2018 at 17:...	NV
Enabling	16	69	4 January 2018 at 18:33	NV
Liaising and coordinating	7	14	7 January 2018 at 11:03	NV
Managing process or project	8	19	3 March 2018 at 10:56	NV
T-shaped professionals	2	5	21 July 2018 at 06:14	NV
Professional identity (self-defined)	23	102	7 January 2018 at 11:55	NV
Professionalism	13	34	8 January 2018 at 06:07	NV
Third Space professionals	14	38	3 February 2018 at 15:51	NV
CONTEXT (UTS)	0	0	7 January 2018 at 20:24	NV

Phase Two Coding Hierarchy - Collapsed



Name	Files	Refere...	Created On	Created By	Modified On	Modified By	Color
1 ENVIRONMENT & CONTEXTS	0	0	17 February 2019 at 15:15	NV	17 Feb 2019 at 15:52	NV	
2 FACTS (PROJECTS)	0	0	17 February 2019 at 15:13	NV	17 Feb 2019 at 15:29	NV	
3 OPPORTUNITIES	0	0	17 February 2019 at 15:13	NV	17 Feb 2019 at 16:35	NV	
4 VALUES & MOTIVATIONS	0	0	17 February 2019 at 15:14	NV	17 Feb 2019 at 16:10	NV	
5 COMMUNICATION	0	0	17 February 2019 at 15:14	NV	17 Feb 2019 at 15:41	NV	

Phase Two Coding Hierarchy - Semi-expanded (Excerpt)

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▼ 1 ENVIRONMENT & CONTEXTS	0	0	17 February 2019 at 15:...	NV
▶ BPN Supporting	0	0	28 October 2018 at 14:...	NV
▶ BPN Thwarting	0	0	28 October 2018 at 14:...	NV
▶ Organisation boundaries	0	0	30 October 2018 at 18:...	NV
▶ UTS Type	0	0	7 November 2018 at 15...	NV
▶ Comparisons & binarisms	0	0	25 December 2018 at 1...	NV
▼ 2 FACTS (PROJECTS)	0	0	17 February 2019 at 15:...	NV
Brief description	17	207	28 October 2018 at 14:...	NV
Challenges	15	135	22 December 2018 at 1...	NV
Contributions of others	17	158	22 December 2018 at 0...	NV
▶ Key learnings	0	0	28 October 2018 at 15:...	NV
▶ Organisation & structure	0	0	29 October 2018 at 14:...	NV
▶ People drawn from TO SORT	8	36	29 October 2018 at 14:...	NV
▶ Project type	0	0	24 December 2018 at 1...	NV
▶ Project type (for pp)	0	0	22 December 2018 at 0...	NV
▶ Reason for selection (pp)	0	0	22 December 2018 at 1...	NV
Relationships TO SORT	16	174	7 November 2018 at 17:...	NV
Significance-impact	11	49	28 October 2018 at 20:...	NV
Specific role (of pp)	17	109	28 October 2018 at 14:...	NV
Staff recognition	14	47	22 December 2018 at 1...	NV
Success	15	76	28 October 2018 at 19:...	NV
Timelines	16	58	28 October 2018 at 14:...	NV
Who contributed most	11	22	28 October 2018 at 14:...	NV
Resources TO SORT	17	173	28 October 2018 at 20:...	NV
▼ 3 OPPORTUNITIES	0	0	17 February 2019 at 15:...	NV
▶ Actors	0	0	17 February 2019 at 15:...	NV
▶ CBW & COL	0	0	17 February 2019 at 15:...	NV
Innovation & creativity TO SORT	15	60	29 October 2018 at 14:...	NV

Phase Two Coding Hierarchy - Expanded (Excerpt)

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Autonomy supportive		13	46	28 October 2018 at 18:...	NV
Effectance supportive		17	140	30 October 2018 at 18:...	NV
Relationally supportive		13	62	7 November 2018 at 14...	NV
▼ BPN Thwarting		0	0	28 October 2018 at 14:...	NV
Autonomy thwarting		9	33	7 November 2018 at 15...	NV
Effectance thwarting		12	57	7 November 2018 at 15...	NV
Relationally thwarting		10	26	7 November 2018 at 15...	NV
▼ Organisation boundaries		0	0	30 October 2018 at 18:...	NV
Explicit boundaries		2	4	19 February 2019 at 10:...	NV
Implicit boundaries		9	15	18 February 2019 at 11:...	NV
Negative outcomes		1	1	19 February 2019 at 12:...	NV
Systems, hierarchy & control		12	41	17 February 2019 at 17:...	NV
Transcending boundaries		7	11	19 February 2019 at 10:...	NV
▼ UTS Type		0	0	7 November 2018 at 15...	NV
1 - Integrated		3	4	7 November 2018 at 15...	NV
2 - Semi-autonomous		7	23	7 November 2018 at 15...	NV
3 - Independent		3	15	7 November 2018 at 15...	NV
UTS general comments		10	27	30 December 2018 at 1...	NV
▼ Comparisons & binarisms		0	0	25 December 2018 at 1...	NV
Across time		5	17	30 December 2018 at 1...	NV
Concepts		9	25	30 December 2018 at 1...	NV
Cross-campus		9	69	30 December 2018 at 1...	NV
Cross-cultural		8	36	30 December 2018 at 1...	NV
PS and AS		13	31	30 December 2018 at 1...	NV
▼ 2 FACTS (PROJECTS)		0	0	17 February 2019 at 15:...	NV
Brief description		17	207	28 October 2018 at 14:...	NV

Appendix 6

Narrative Case Summaries

Tropical University (Australia) Case One: From the DNA pump to Grover Scientific: A case study of "sprinting the marathon" all the way from an idea to the commercial entity

Project background

It all started with one University scientist - the Researcher - becoming frustrated with using research equipment not suitable for the environment and for her research purposes. The environmental sampling device – a DNA pump – had been in use for over 20 years. It was time to replace it with a more reliable, more environmentally friendly and lighter tool to be able to carry out biological research in remote areas of Queensland, Australia. Commercially available solutions were too expensive and bulky to carry around at research sites. The Researcher knew that she could not solve this problem on her own.

A colleague recommended reaching out to a technical solutions manager - the Innovator - known for his design innovation at TU, to see if he could help to build a new device. He came out with the Researcher to observe how the field sampling process was conducted and to figure out what needed to be done: and design and build he did. After two years of co-designing and co-refining, the first usable prototype of the new sampling tool was built. Other researchers saw it and said, "This is great! We want it too!" Neither the Researcher, the Innovator nor TU was set up as a business, and therefore they could not supply a large number of new devices to those who needed them. The Researcher and the Innovator appealed to a Research Business Manager – whom they both knew from earlier cooperation – in the hope that he would help them to navigate the maze of TU's bureaucracy and intellectual property legislation.

Shortly after the three of them started working on a commercial solution to cater for researchers within and outside TU, an extraordinary opportunity presented itself. The team applied for, and won, the chance to participate in the research innovation acceleration program with the largest scientific research organisation in Australia.

While in the program, all three of them learnt how to develop viable and competitive business models, take research solutions to the market, pitch to potential investors and set up a commercial enterprise. The program was an incredibly gruelling experience, but the knowledge and skills that they acquired were worth sprinting the marathon all the way to the finishing line, while juggling the extensive travel, taxing studies and their main jobs and families. Participation in the national research innovation program completely changed the Researcher's and the Innovator's mindset. They acquired manifold business intelligence and highly valuable commercial acumen, expanding their professional networks and securing funds to manufacture the devices commercially. Their incredible learning marathon led to the two of them setting up their own commercial research entity, independent from TU. The company was set up in 2018 and was named "Grover Scientific" after the new DNA pump that they called "Grover".

It is useful to look back and to review how this project of entrepreneurial collaboration developed and what made it a success, through transforming one researcher's challenge into a life-changing opportunity of changing the whole bio-research world. This case study revealed how – within the traditionally bureaucratic, slow and convoluted for business market environment – a researcher's dream became a reality through connecting with the right people: homegrown talent with unique skills, expertise and the right mindset. It was also a case of how, with additional learning, financial support and cross-boundary networks, commercially viable business models can be built via connecting ideas with the much wider research community, thus translating a solution for one into a solution for many.

Project type and challenges

The project stemmed from a research problem and two people working together on a solution outside their main respective jobs. It then developed into a small-scale, semi-autonomous design and innovation project involving three people. It subsequently became an independent new company registered by the Researcher and the Innovator. The project was not particularly challenging from a technical perspective, especially not for an experienced and talented Innovator famous for his creative, cutting-edge solutions. The real challenge began when the three of them joined the research innovation acceleration program, which took them away from their main jobs, students, families and other commitments.

The program coordinators suggested that it would be not a sprint of quick and easy chunks of learning, but a marathon of endurance, commitment and effort. The participants, however, felt like they were sprinting the marathon the whole time. It was intensive, it was difficult, it made them jump out of their comfort zone, and it stretched and challenged their thinking. It was, however, rewarded by a complete makeover of their perspectives at the end of the program. They reconceptualised research, and relearnt what research impact meant and how to turn research solutions into viable business enterprises while remaining true to one's professional ideals.

The Innovator and the Researcher had to learn "another language" of commerce and entrepreneurship, while the Research Business Manager had to learn about the field of genetics and zoology. Each of them found it simultaneously stimulating, challenging and rewarding to learn new translational skills, which assisted them in making their cross-boundary communications relevant (specific for each type of audience), compelling and purposeful.

Staff contribution and relationships

All three staff members came together serendipitously - virtually by turning up at one another's workplaces. They may have had some incidental knowledge about one another through previous experience or the corporate hierarchy of knowledge, but all three generally relied on the internal 'word of mouth' recommendations. The Researcher and the Innovator were already working together on the product, and, when the need emerged to build the devices for other researchers, the Research Development Manager joined them at this pivotal time. He provided expert advice about the research commercialisation of the business model, thereby helping to negotiate the IP arrangement. He also assisted them with making sense of legal matters around the delineation of TU business and that of the new company.

All three of them had a deep appreciation of the diversity of people and of their perspectives that is designed to change one's worldview. Complementarity of their respective and very diverse skills, grounded in the commonality of values and goals, was the key ingredient for their successful collaboration, which later transformed into a business partnership between two of them.

What made this project successful

The value of professional relationships between project participants could not be underestimated. Their three individual passions – for conservation, for innovation and for research commercialisation – came together to create a unique space for experimentation and innovation. It was all about people, relationships, and reaching out and building connections, and this is what helped them to realise their vision, which became a success for everyone who was involved in the project. Within their small team of three, they openly discussed ideas, argued about the principles without trying to influence one another, and generally took turns in leading the space from the perspective of expertise rather than of power. And, when the team joined the national program, they noticed that the same principle applied to teams who

had not had prior relationships with outside teams: the adversarial and competitive relations at the start very soon transformed into genuine camaraderie and solidarity, assisting the participants to get on with the tough program requirements.

All three of them learnt an incredible amount, which transformed their professional identities, providing them with much broader and deeper views of the definition of success, and of the meaning of research, innovation and technology. They learnt that, by getting ideas out there, and by involving diverse views of users in the process of design and product improvement, there is a much higher chance of achieving the sustainable impact of project innovations.

Conclusion: how to recognise professional staff and to enable them to be more collaborative

A few key learnings emerged from the discussions of this unique and inspiring project.

Firstly, although knowing the right people is a way of involving professional staff in collaborative projects, it is not sustainable in the long run. A few ideas were put forward as to how to get professional staff connected with one another and with the wider university community, to enable them to participate in collaborative projects. A social club, a staff lounge or another such central point was perceived to be a way to connect people and ideas, to enable professional staff in particular to meet other people and to learn about new initiatives in which they might partake. The building of the new Innovation Centre was flagged as one such focal point, which may eventually transform into a space of wider collaborative engagement.

Secondly, collaboration is often assumed and taken for granted by TU, instead of staff being provided with due space, time and acknowledgement for undertaking this type of activity. Crossing organisational boundaries to collaborate needs to be encouraged and staff,

including professional staff, may all benefit from a nurturing environment that supports open communication and the exchange of ideas across professional domains.

Finally, an individual approach to professional staff recognition is highly desirable. For many, work motivation and a goal to collaborate originate from an intrinsic desire to see one's innovation benefiting others, whereas for others acknowledgement from peers, managers, respected colleagues and leaders can make a great difference. There is, however, another group of professional staff who derive deep satisfaction from autotelic activities, by simply working on an interesting and exciting project that stretches and challenges them.

Tropical University (Australia) Case Two: "Building the aircraft while flying it": A case study of teams defying the boundaries and working together to deliver a new model of generalist medical training

Project background

Generalist medical training used to be provided by many private providers spread across Australia. Each provider had its own geographical patch for which it was responsible. The government decided that this should change, and that only a few organisations with a much bigger geographical patch would now provide this training. The government thought that it would be more efficient and would serve the regional communities better by training more doctors for a lot less money.

The College Leader at TU thought that this might be a great opportunity to provide this training. TU had done something similar before, but not quite like this. The Leader asked the staff, "Shall we do it?" The Leader had two teams: the delivery team – academic staff, and the support team – professional staff, and these two groups would need to work together for the project to be a success. The Leader made sure to ask both teams for their opinions. While some staff may have had doubts, with much optimism and enthusiasm, the two teams decided to go for it. Once they commenced, the staff realised that there was a lot to learn, create and develop to undertake this new and exciting challenge. But, rather than this being a problem, the team developed a motto – they decided to adopt the metaphor of "building the aircraft while flying it" – and this has become deeply embedded in the cultural fabric of the team.

It is useful to look back and to find out how this all happened, and how something that could have been disconcerting and risked failure became successful. With the first three years over, and time to apply for another three years of funding, this case study looks back to see how this new project was handled and what made it a success. Very often in the face of

new challenges, decisions are made from above and then 'given' to the staff who have to implement them. This case study illustrates how the involvement of all levels of staff – deliverers, organisers, supporters and promoters, to name just a few – and their collaboration, 'can do' attitude and audacious approach in crossing multiple boundaries to achieve a common goal led to a very successful outcome. It showed that, even if you do not quite know what the plane will look like, if you ask the right people, and involve everyone before and during the building process, you can quickly build an airworthy plane while actually flying it.

Project type and challenges

The key staff involved in the project who were working across the North Queensland regions had only a couple of months to get this large-scale, multi-million dollars project up and running: from the announcement that TU had won the tender to the start of the training delivery across the regions. So time was the first challenge. Then there was a severe shortage of staff; people therefore had to do multiple jobs, thereby going over and above their original position descriptions and exceeding their standard workloads. The challenges, especially in the first months of the project, were seen by many as almost unachievable and simply "crazy". Many felt overwhelmed by the pressure of expectations, short timeframes and additional responsibilities.

The project was viewed as stand-alone to begin with, and it took enormous effort and patience from people within and outside the project team to work out how to make it fit within the traditional university structural boundaries. Although it made sense to utilise the existing university infrastructure and systems - HR, Finance, Legal and others - these systems were not suitable for this "misfit"' of a project, which required a lot of backend re-engineering to make the support services work and to integrate the project more effectively into TU.

It was extremely difficult, especially in the regions, where the previous training provider operated, to overcome cautious and sometimes outright negative attitudes towards TU, which was seen as "taking over" the territory. It was also extremely challenging – personally and professionally – for people on the ground to operate under the pressures and complexities of TU's policy and politics.

A distributed model of responsibility, which was a special brand of The College and which had already been in place before the project started, carried both advantages and drawbacks. Divided by geographical boundaries and by distance, staff in the regional offices were given autonomy to engage with the local medical community, thus creating and maintaining long-lasting relationships. Yet they also tended to create their own systems and ways of doing things, which were viewed by key project participants and leaders as departing from a consistent and collaborative approach. The decision to continue using the distributed model for the project was critical as, while consistency of services and operations was required, local staff autonomy and the ownership of the agenda were far more important considerations.

Staff contribution and relationships

Professional and academic staff relied to some degree on external expertise - people employed from outside - but mostly on one another to succeed. A lot of on-the-go learning occurred – hence the motto of flying the plane while building it. Staff expertise and their ability to acquire new expertise quickly were key requirements. Academic staff provided the general competence and knowledge for the training delivery, and professional staff provided a range of contributions from being a glue for the whole project, to providing a collaborative and integrated approach to staff management, system (re)calibration and data collection, to measuring project impact over time.

Staff reached out to one another seeking advice, and working out solutions together; it was a time of entrepreneurship, innovation and camaraderie. People – through maintaining resilience and being collaborative and entrepreneurial – did a remarkable job within an incredibly short timeframe. Trust and a strong bond between professional and academic staff continue to grow as people have gone through challenges and tough times together.

At the same time, these relationships were not devoid of challenges and tensions. Professional managers had to make decisions fast and "on the fly"; therefore there was often little time for consultation or extended communication with staff. A diversity of opinions was not tolerated at the beginning, giving way to autocracy and fast-paced management decision making. The pragmatic goals of getting the training program delivery ready and integrating the systems, making them suitable for the clients, were the main priorities. Later, even after the project developed and took the required shape and structure, diversity of solutions and staff innovation were often seen as challenging the consistency required for a large and complex project like this one, and therefore discouraged. Hierarchy and boundaries that were constructed to protect consistency were seen by many as a new and unavoidable stage in bringing the project back 'to the fold': important and yet often frustrating as it introduced firmer control. It also somewhat removed direct communication and relationships between staff, and it occasionally led to a delineation between professional and academic communities.

As the project progressed and funding became available, there were instances when new roles were introduced, leaving some professional roles destabilised and leading to the need for transitioning staff from working across various organisational boundaries to more bounded and controlled portfolios. All these developments left some staff frustrated and disillusioned.

What made this project successful

Competence, equal contributions and expertise of people, and their ability to put skills into action quickly were key success factors. A distributed model of operations that defies the geographical boundaries and centralised decision making, and that relies instead on the power of local stakeholder relationships and people connections, was another crucial success factor. People developed networks and increased their connectedness, which also enabled them to look for solutions together. The role of an inclusive, visionary and charismatic Leader was acknowledged by staff as having a great impact on people's feeling trusted and enthusiastic, which enabled the Leader to get the project through to its successful conclusion.

Conclusion: how to recognise professional staff and to enable them to be more collaborative

This project showed that professional staff, once given an opportunity and challenged to take a step out of their role boundaries, can really step up. They are able to close the gap between their own perceptions of what they are capable of and their managers' beliefs in them through demonstrating real project outcomes. Professional staff feel strongly about the skills that they are lacking, and this is what often holds them back from taking initiative or taking opportunities to participate in projects. Encouragement and appreciation from managers, support and trust go a long way.

Professional staff most of all value their peers' and their managers' recognition through being given further opportunities and just by saying, "Thank you for a job well done". Some of them claim their uniqueness in saying that they do not need any recognition. What they really mean is they do not wish to have a fanfare of a recognition, but instead appreciate being given an opportunity to contribute in a significant way. They always appreciate being included in the project design and trusted to do a good job through building long-term professional connections with others. From the academic staff perspective,

professional staff are in a different space of professional recognition, as they are generally bounded by the nature of their job and different remuneration from that of academic staff. It is therefore even more important to acknowledge the value that professional staff bring to the projects.

Tropical University (Australia) Case Three: "If you build it, they will come": A case study of a significant organisational change that emanated from a technology solution

Project background

About seven years ago, TU decided that there could be better ways to showcase and promote its researchers and the outputs that they produced. The technology platform used at that time was out of date, and people across various teams – Research Information and IT – often worked on technological solutions in isolation. People felt that a lot of university research data were perpetually dated or incorrect, and that information systems did not communicate with one another to be able to resolve these issues. At the same time, there was a growing need to help researchers not only to connect with one another, but also to help people from across the world to discover TU researchers who could potentially supervise them in postgraduate research.

There were many ideas floating around regarding potential solutions. People in the Research Information team quickly realised that there was not an 'off-the-shelf' solution that they could purchase and use. A Manager of one of the Research teams came up with the idea of an online paged portfolio for each researcher. The idea was ingenious for two reasons: firstly, it addressed the problem of data cleansing by requiring researchers to keep their research information accurate and up to date themselves; and, secondly, each individual researcher's pages would be connected through various data sources. The Research Technology team subsequently developed a plan about how to design and build this new system. They had to connect and work together with other teams – HR, IT, Grants, Finance and others – who owned the data and who needed to provide data validation.

The other important consideration that the team explored was the need to create a simple, attractive and user-friendly interface for each individual researcher to attract collaborators and students. Therefore the Research Information and Research Technologies

teams - through some fortuitous discussions between managers - approached a few of their technology talents to develop, design and implement the project. There were few resources for this project, and therefore progress was slow, and yet they had the right people who were passionate about the idea and how to make it happen, and together they just kept working on a solution. Finally, the research portfolios were built and the project was launched. Soon after the launch, the Leader of TU made the Research Portfolios the single point of truth for research publications and other outputs, as well as for the researchers' promotions. It was a remarkably successful project that started within one Research team and developed into a core project of TU.

It is useful to look back and review how this transpired, and how something that could have been bureaucracy-ridden and risked a complete standstill was turned into a successful solution that continues to be actively used by university researchers and external parties. The Research Portfolios are now being re-imagined, re-imaged and upgraded by the same Research Technologies team to give the pages a fresh look and feel, and to include other types of information that the researchers would like to present. Phase Two of this project is also envisaged to have postgraduate students' portfolios added to the site.

This case study illustrates how the collaboration of the right people who were passionate about finding solutions and audacious in crossing various systems' boundaries led to a very successful outcome. It showed that, even if you do not quite know what the final product should look like, if you include the users of the systems and make the design decisions **together** with them rather than **for** them, it is possible to build a long-lasting and very practical product. It also showed that being given autonomy with just the right amount of supervision enables people to produce creative and innovative university-wide solutions without necessarily having a well-structured project design.

Project type and challenges

The Research Portfolio was a brainchild of one of the research team members who, through a serious of fortuitous discussions, found the right person to work on the project. The project was a small-scale, semi-autonomous development that was initiated as a business start-up and that later became integrated into TU research system. Staff working on the project - primarily professional staff within the Research teams under the leadership and guidance of an academic Project Leader - considered that there was just the right amount of resourcing for the project, which forced people to use their wits in the search for ingenious solutions. The minimal funding that was received was useful to provide staff with the time and space to focus on the project goals.

The project was not particularly challenging from a technical perspective; however, there were quite a number of bureaucratic and systemic hurdles to jump through before the project could succeed.

Staff contribution and relationships

Professional staff were selected based on their technical skills, reputation and experience of working on similar projects. The funding also enabled the bringing of creative talent to work on the project. Staff contributed to the project as they were able to do so and capable of doing so, driven mainly by their interests and their passion for the project. Overall, it was an organic, fluid and nurturing project environment that created an atmosphere of open communication and collaboration. The two partners, equally passionate about the project, were providing shared contributions, motivated by a common goal of creating a useable and useful solution for researchers.

What made this project successful

The Project team believed that the decision to develop the product in-house using diverse talent – as opposed to pursuing a commercially available solution – and engaging

academic staff in collaborative participatory design turned out to be the right decision. Accommodating diverse staff needs, creating spaces where people could express their ideas freely and developing the skills necessary to succeed and thrive in the process were all key ingredients of success. People were led and trusted, as opposed to (micro)managed or controlled. Project staff referred to "light touch" leadership and to a flatter, non-hierarchical structure, which they believed was what supported staff to innovate. Enjoyment, enthusiasm and passion for the project enhanced opportunities for staff to feel a shared ownership of the final outcomes.

Conclusion: how to recognise professional staff and to enable them to be more collaborative

The project revealed that professional staff may need to be given space and time to explore, be creative and be innovative, accommodating diverse needs, ideas and perspectives and supporting people acquiring new skills. The management of diversity should be about unleashing the creative energy of staff rather than any quest for uniformity. It should be about talent-matching whereby the right people are placed in the appropriate jobs or projects – "right" for them and for TU – an intricate balance of valuing individual contributions and harnessing optimal results.

This project was seen by the Lead Project officer as formative in that it helped him to develop a portfolio of technical skills. Most importantly, cross-boundary capabilities and expertise helped him to get to where he is today: being in a management role leading multiple online projects, juggling multiple professional identities and overseeing the work of other staff, bridging research and technology. Among those cross-boundary skills that were developed and considered to be highly desirable are the confidence to communicate with academic end-users of the research portfolios; the ability to develop creative - not just practical - design-thinking solutions for technical challenges; and, finally, translational skills

of connecting solutions and people integrating their perspectives into creating and building innovation.

Seeing how the project changed the lives of researchers became an additional source of inspiration for the professional staff who worked on the project. Winning a Staff Excellence Award was not the key reward for the collaborative project team; it was welcomed but not the most valued outcome. Project work satisfaction therefore does not necessarily come from formal recognition; rather it is driven by motivation from within and from seeing how innovative work benefits others.

This project example raised the question of how TU could get the right professional staff connected with the most appropriate tasks. The idea of a social media forum to get people and ideas connected was flagged, although there is still the tricky question of how to get all staff engaged that remains unanswered at this point in time.

Tropical University (Singapore) Case One: "An exciting place to be": A case study of fast-paced, cross-cultural, cross-campus collaboration for building a research culture at Tropical University (Singapore)

Project background

When in 2017 a large increase in funding was approved for the Singapore campus of TU, an idea for a research arm was discussed at the senior leadership level. However, the task of activating a research agenda in a country where TU had difficulty accessing government funding, given its status as a private institution, turned out to be a challenging one. It was a year later when the expertise of a Research Leader from Australia was sought, and when that Research Leader worked together with the local leadership and research talent in Singapore, which finally brought the concept to fruition. A brand-new entity, "The Research Institute" (TRI), developed from a completely greenfield site. TRI was officially launched in September 2018.

The Institute complements existing research strengths in Australia, and develops niche research areas relevant to the Singapore campus and the Singapore economy, such as aquaculture. It has been rapidly generating world class research outputs through securing industry support, linking with key Singapore research funders, and attracting and developing high quality researchers from Singapore, Australia and other countries. Developing doctoral student cohorts aligned with Singapore's research priorities has been another focus. Establishing TRI involved a concerted effort by many TU Singapore leaders, staff, industry partners and key stakeholders from TU Australia. Academic leaders, researchers and professional staff from both Singapore and Australia worked many long hours, firstly to formulate, then to develop, TRI's key priorities, and, finally, to launch the new entity officially. This is the story of a successful cross-cultural and cross-campus collaboration between academic and professional staff at the two university campuses – divided by

geography and culture, and yet strongly united by one goal. This goal was to establish a strong research presence in Singapore that leveraged off multiple strengths and capabilities from across the whole university, while aligning with niche research areas within Singapore.

It is useful to look back and examine how this flagship collaborative project of multi-level boundary crossing developed in the fast-paced environment of the Singapore campus, and which specific elements contributed to its success. This case demonstrated that, even within the environment of one university with two campuses – each very different in its respective pace of operations and organisational culture – with the inclusion of people with the right expertise working together with an enthusiastic, activated and experienced leader, it is possible to build and embed a strong research culture and infrastructure to support its development. It also showed that, when a leader shares the vision of a new culture with staff, people can come on board quickly, and become inspired, driven and committed to designing innovative solutions or connecting across campuses to share solutions, thus achieving strong results and achieving high and enduring impact for the benefit of TU and of their respective teams.

Project type and challenges

The project was initially considered to be a big challenge. Despite TU's investment in the project, the lack of access to Singapore government funding was the main obstacle to initiating and developing the research agenda. This impediment was later resolved as the Institute was registered as a not-for-profit organisation, and soon after that it received approval to apply for government research grants.

Another challenge was the imperative to build Singapore staff expertise in research quickly. Firstly, academics had to build their knowledge about competitive funding, industry-led research, partnering and contractual legal protection. Secondly, professional staff needed to develop knowledge and expertise around research support processes and activities. The

resolution of these challenges commenced with the Research Leader setting and sharing a common vision with the project team, providing them with information and advice and, most importantly, enabling Singapore staff to access existing university support and expertise to eliminate any duplication of efforts.

The Singapore campus was historically focused on the core activity of teaching. It was a situation that the Research Leader—relying on the support of the local project team—had to turn around to enable the team to transition to a new focus that would incorporate research. Changing the value system was not an easy endeavour; it involved recalibrating academic staff profiles, setting new expectations, establishing reasonable and achievable targets, and, more broadly, developing Singapore academics' trust in a new, balanced activity model. The approach required pitching a compelling proposition to all staff, consulting with them in order to secure a sense of ownership and trust in the new system's merits, and, finally, the staged implementation of the adopted plan.

Certain challenges were linked with the policy environment. Singapore staff were eager to adopt Australian policies without necessarily applying them to the Singapore context, which had been changing, with staff gradually gaining experience and expertise in developing and implementing policies with a local focus.

Staff contribution and relationships

The Research Leader worked together with, trained and mentored professional staff to instigate new processes around research that would suit the Singapore environment. Some professional and academic staff were re-deployed to work on the project under the Research Leader's direction, which meant that they were allocated time to focus on the project. As the project progressed, they all, to a certain degree, had to recalibrate their professional identities to prioritise a research focus over other elements, with many quite excited about doing so.

Australian project members (Research Leader and Research Development Leader), who were based in Australia and spent time in Singapore assisting local staff with the project, observed that professional staff in Singapore, once they understood the vision, were more energetic, passionate about their work, eager to generate ideas and take initiative than their colleagues in Australia, who often performed activities in a more dispassionate and perfunctory manner. At the same time, some professional staff at the Singapore campus felt uncertain about explicit ways of taking initiative. They appeared to be reserved and respectful of hierarchical relationships within the team, and they did not perceive hierarchy as a challenge for a successful, productive and respectful relationship between team members. Professional staff were eager to develop innovative solutions, and yet they generally felt constrained by their role description. Despite feeling sufficiently knowledgeable and skilled to expand to other project areas, they often stopped short in order to avoid appearing presumptuous, and to avoid crossing any difficult boundaries that they perceived as being generally impenetrable.

What made this project successful

The project was viewed by all as exciting and transformative for TU, Singapore. Despite initial challenges and tensions, the Research Institute was launched, and a new research culture began to develop. Professional collaborative relationship building between Singaporean and Australian staff contributed to the project's success. The energy of Singapore professional staff working on the project, their passion to grow the business and their love for the organisation (a "one big family" mentality) were other positive factors. The particular leadership style of the Research Leader was acknowledged by all project participants as instrumental to building productive relationships. Through introducing a relaxed and collegial environment, and through setting an example by being enthusiastic and

passionate about developing research excellence, the Leader stimulated the productive exchange of ideas and innovations.

Power entrusted to the Research Leader was another positive element in the project development. The effects of power are dissimilar in Singapore and Australia. Power drives strategy implementation in Singapore and, being concentrated with only a few people, enables fast progress and nimble decision making, whereas in Australia power is diffused across multiple bureaucracies and at times leads to lost opportunities owing to inefficiencies. Finally, careful consideration, exploratory mindsets and a genuine desire to meet local industry needs – which is especially important in Singapore and in South East Asia in general – were other elements of the success of the project.

Conclusion: how to recognise professional staff and to enable them to be more collaborative

Collaboration is perceived in Singapore as a way of getting things done in an efficient manner. It is therefore important to enable professional staff to be collaborative. The biggest challenge is to develop a way of getting the right professional staff connected with the most appropriate tasks. The Research Leader claimed that it was a liability for TU not to leverage off its own talent. It was suggested to start with an organisation-wide skills audit. Others confirmed that many of the collaborative projects required a diversity of skills; however, the complexity lay in knowing which staff possessed the specific skills necessary for particular projects.

An interesting point was made by professional staff in Singapore, who frequently appeared to be "volunteered" for collaborative projects rather than offered an opportunity to participate. They may not necessarily have buy-in from the start and yet, not being in a position to say "No" owing to the idiosyncrasies of a specific organisational or, potentially, a national culture, they still take it "in their stride". They commit to the new task and, with

time, achieve a sense of ownership of the project and satisfaction from making progress. This raises the question of the benefits of initiative-making versus initiative-taking, especially in cases where professional staff are willing to contribute and take the lead, even if they frequently lack the confidence to do so.

Tropical University (Singapore) Case Two: "It was only a very small project" but a huge step towards reaffirming collaboration: A successful case study of interaction and collaboration between colleagues from different campuses

Project background

In 2017, academic and professional staff leaders at the Singapore campus of TU started discussions about opportunities to provide alternative pathways for students who did not meet entry requirements for the undergraduate Psychology Degree. Another group that was discussed were students who were not wanting or unable to commit to three to four years of studies for a degree, but who could be 'tempted' to sample a taster accredited Psychology subject, which later would provide a pathway to a full degree should they wish to take this opportunity. Market intelligence from Singapore and from global sources pointed out that there was a demand for shorter programs of study.

The challenge was that Psychology, and in fact all academic programs, is and are 'owned' by the Australian campus. Since the use of this proposed program was intended only for the Singapore student market, the priority of developing the program resided solely with the Singapore academic and professional team. The Australian team of Psychology academics and the Program Accreditation professional staff, however, did not treat it as merely a Singapore priority, and instead fully embraced the initiative and worked collaboratively with Singapore staff to develop the program. There were a number of delays at the beginning; technology and geographical separation presented a number of hurdles. Yet the cross-campus team of academics and professional staff worked hard and fast to 'push' through the cumbersome and fairly extended program accreditation process to have the program up and running within a year. The program – a Diploma of Higher Education with a Psychological Science major – was launched at the Singapore campus in 2018, and it is now gradually gaining student enrolments.

This case demonstrated that, even when teams are separated by geography and culture, if people are willing to communicate, interact and collaborate, and if they have the right mindset focused on the whole university, decisions can be made and projects can progress quickly. This is a story of a successful cross-cultural and cross-campus collaboration between academic and professional staff working within one university and across two very different campuses, in terms of their respective paces of operations and organisational culture, communicating and working together on achieving a common goal. This goal was to create a program to help to capture a Singapore market through designing an academically attractive and financially viable program for students. It is useful to look back and review how this project of collaborative engagement developed, and what made it a success.

Project type and challenges

The project was considered to be small-scale and fairly straightforward from the implementation perspective, well within the scope of the project team's expertise. Time, however, is always a scarce resource and an especially vital commodity in Asia, where the speed of change is high and the expectations of quick responsiveness and turnaround of results are a norm. Time was something that the team members needed to "borrow" from here and there to enable the project to move along.

Distance was another challenge that, despite advances in technology, presented an impediment on the way towards fast and efficient communication between the project team members. Another challenge, specific to the Program Accreditation staff, was the need to design a product that would not only be attractive within the Singapore domestic and international student market, but also meet the Australian Psychology Accreditation Council's requirements. The program needed to be designed and packaged in a certain way – that is, (cost) efficient and compliant. This is what the team in Australia, regularly interacting with their colleagues in Singapore, set out to achieve.

The project was developed organically, in contrast to carefully planned projects that are often believed to be stifling of people's creativity. Instead, project members were given autonomy to collaborate when they were able to free up some space and time, discuss the best way to select and package subjects, and innovate for the overall program design. They all believed that it was the most productive way to run this project; a flexible project format was one of the elements of the team's successful collaboration.

Staff contribution and relationships

Australian and Singapore team members appreciated the collaborative and consultative efforts that each of the staff contributed to the project. Most of all, they acknowledged the expertise and proactive attitude that their colleagues across the border – highly motivated and energetic individuals – demonstrated in order to design the best product to fit the market. Each contributed according to her or his respective expertise, be it the knowledge of the market and market intelligence; the understanding of the accreditation requirements in Australia and in Singapore; or the academic discipline expertise. Although there were certain elements that different groups had to prioritise within the vision for the solution – cost efficient design of the program versus the desire to prepare and sell the product quickly – the ultimate goal was shared by all, and that was what drove the whole team to a successful outcome. Unique contributions of the individuals and the complementarity of staff diverse skills, expertise and critical viewpoints were all contributors to the success of the project.

What made this project successful

The leadership of the whole team and the management of the objective (rather than of people) helped within this organic project development. After the initial program plan endorsement was provided by the Academic Board and the senior campus leaders, the project team started working on the specific elements of the program, keeping in mind what they

were trying to achieve and steadily progressing towards that goal. There was a clear focus on an agenda of innovation as opposed to an agenda of control.

A senior leader at the Singapore campus acknowledged that it was fairly easy to attract people with the right skills for this project. It was far more difficult to ensure that those people who contributed to the project possessed the right cross-boundary mindset. As this project revealed, staff having and actively promoting an awareness of the benefits for the whole organisation – instead of thinking about any direct advantage for themselves or for their immediate team – were the most critical capability that brought team members through to a successful finishing point.

Having an awareness and appreciation of project members' diversity, being mindful of those differences and using them as strengths were the attributes that all project members had in common, and that also contributed to their successful collaboration. They were all willing to listen to their colleagues' individual perspectives before voicing their own, thus promoting a synergistic approach to managing the diversity in the group.

Conclusion: how to recognise professional staff and to enable them to be more collaborative

Project participants claimed various reasons for deriving satisfaction from working together with their colleagues. It was a powerful feeling for some to be useful, possess the required expertise or competence, and be called upon and trusted to contribute by providing advice and recommendations, and being subsequently included in design and implementation. A sense of fulfillment from achieving something important and positive for students and TU, as well as the actual process of teamwork, were other reasons valued by others. Seeing the project that they worked on achieve success was sufficient recognition for others.

Collaboration is treated equally seriously by staff in Singapore and in Australia. Its value and importance are articulated as:

- being able to achieve big things (versus making small progress when working in silos);
- achieving things quickly through engaging in joint and synergistic efforts;
- achieving creative and innovative outputs through capitalising on complementary and diverse skills, viewpoints and insights;
- feeling energised from working with others; and
- being able to share the burden of a task across team members.

The collaborative efforts of professional staff are, however, acknowledged differently at each of the TU campuses. Singapore practice is to set so-called “stretch targets”, which comprise activities and goals that cross the boundaries of professional staff work scope. Some such targets presuppose collaboration as they are shared across many staff, and are not achievable if a staff member works on her or his own. There is a financial bonus as well as public acknowledgement at the end of the year for staff who are able to achieve or overachieve their stretch targets. Most Australian universities are constrained by an industrial relations framework; managers are therefore not able to provide financial remuneration to staff over and above their designated salary payments. What became evident, though, is that it is not financial remuneration and even public recognition that are key drivers that provide professional staff with an impetus to take part in various cross-boundary collaborative activities. It is sometimes intrinsic motivation, or certain personalities and aspirations that shape a predisposition towards collaboration.

The importance of organisational culture and leadership that celebrate both tangible and intangible outcomes that professional staff bring to the table was considered to be critical for staff collaboration to flourish.