Evaluating the Effectiveness of a Bilingual Peer Assisted Learning Program for Chinese Students in the Higher Education Context

Jin Cui
University of Wollongong

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Evaluating the Effectiveness of a Bilingual Peer Assisted Learning Program for Chinese Students in the Higher Education Context

Jin Cui

Supervisors:
Professor Millicent Chang
Dr Sandra Chapple

This thesis is presented as part of the requirement for the conferral of the degree:
Doctor of Philosophy

This research has been conducted with the support of the Australian Government Research Training Program Scholarship

University of Wollongong
School of Accounting, Economics and Finance

November 2020
Abstract

International students are vital to the Australian education sector, particularly students from China who comprise the largest international student cohort (Department of Education, 2019). In order to cater to the learning needs of these students, peer mentoring programs are often used by Australian universities. This thesis evaluates the effectiveness of one such program using Kahu’s (2013) student engagement framework. The program CABLE offers bilingual peer-assisted learning workshops (B-PAL) and social activities in the business faculty of a regional Australian university. A mixed methods approach is used to collect and analyse data, including surveys, interviews, and student grades. The results show that the CABLE program positively influences students’ psycho-social attributes, hence assisting Chinese students to achieve better academic performance. This thesis contributes to the literature concerning the higher education sector by extending Kahu’s (2013) student engagement framework. In addition, it fills a gap in the literature by evaluating the B-PAL approach as an integration of the peer-assisted learning (PAL) philosophy, bilingual education, and social networks for international students. It also demonstrates that the B-PAL program can be implemented by higher education institutions as a means to better engage international students, assist student transition, and hence improve retention.
Acknowledgments

Completing a PhD was never part of my life plan when I decided to study in Australia 14 years ago. I completed my first Master’s degree at the University of Technology, Sydney and decided to move to Wollongong to start the next chapter of my life. In Wollongong, I met lots of wonderful people who encouraged and inspired me to start my PhD journey. My five-year PhD journey was filled with fun, anxiety, and drama, and finally, I am at the end of the journey, thanks to the support of the amazing people who continue to guide me.

First and foremost, I would like to thank my supervisors. Prof. Millicent Chang, School of Accounting, Economics, and Finance, University of Wollongong, is a wonderful supervisor who is a genuine intellectual with a passion for guiding and improving my work. I appreciate her contribution of time, patience, thoughtful insight, and most importantly, her kindness, encouragement, and spirit that made it possible for me to complete this thesis. Her guidance has helped me develop this research to its potential and further develop my research and critical thinking skills. I also extend my sincere gratitude to my co-supervisor, Dr. Sandra Chapple from the University of Wollongong. To me, Sandra is not only a PhD supervisor but also a mentor. I’m so grateful for her generosity in sharing her knowledge and experience to guide me along my PhD journey. While I was completing my PhD, I had a full-time job that required extensive overseas travel, which meant I struggled with the balance of work and study. As a mentor, Sandra’s positive encouragement helped me to overcome my concerns about balancing work and study and motivated me to continue my PhD. Without her continuous support, I don’t think I would have been able to finish my thesis! I’m also incredibly grateful for her excellent editorial suggestions and valuable comments to improve my writing and analysis skills. Her enthusiasm and love for teaching is contagious; indeed, she has inspired me to become a student recruiter for the university! Further, I am indebted to my former supervisor, Assoc. Prof. Corinne Cortese from the University of Wollongong. Without Corinne’s inspiration, I would not have commenced my PhD journey in the first place. My appreciation also goes to my former co-supervisors Dr.
Matthew Pepper and Dr. Reetu Verma from the University of Wollongong and Prof. George Mickhail from Bryant University, whose input assisted in the development of this research in its initial stages.

I would also like to thank many other academics, professionals, and colleagues. My appreciation goes to Dr. Aelee Jun and Dr. Sanja Pupovac for providing support and guidance during my study. I also want to thank Ms Rachel Weine, Senior Manager Student Recruitment and External Relations from the Faculty of Engineering and Information Sciences, University of Wollongong. I appreciate her support regarding my work arrangements and her ongoing kindness.

My friends and colleagues are the best gifts I received during my journey. I could not ask for more. I would sincerely like to thank Ms Lily An, Sarah Wang, Sheetal Deo, Dr. Leqi Zhao, and Xinru Yu. They offered their wealth of kindness, generosity in time, and incredible support along my PhD journey. Their presence filled my PhD journey with fun and joy, and the memories that we made are priceless and irreplaceable. There are many others whom I have forgotten to mention, who have helped me in various ways, and I am grateful to them too.

My deepest gratitude goes to my beloved parents, Mr Xueping Cui and Ms Xiuhua Shen, my husband, Dr. Tairan Huang, my cousin, Yiyue Sun, and other family members for their faith in me in completing my PhD. Words cannot express how grateful I am to have them in my life. They shaped who I am today, and most importantly, their love encourages me to overcome any challenges I face in my life. Thank you for supporting and loving me.
Certification

I, Jin Cui, declare that this thesis submitted in fulfilment of the requirements for the conferral of the degree Doctor of Philosophy, from the University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. This document has not been submitted for qualifications at any other academic institution.

Jin Cui
27th November 2020
# List of Names or Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABDC</td>
<td>Australian Business Deans Council</td>
</tr>
<tr>
<td>AGFI</td>
<td>Adjusted Goodness-of-Fit</td>
</tr>
<tr>
<td>AUSSE</td>
<td>The Australia University Survey of Student Engagement</td>
</tr>
<tr>
<td>B-PAL</td>
<td>Bilingual Peer-assisted Learning</td>
</tr>
<tr>
<td>CABLE</td>
<td>Chinese Academic Business Learning and Education</td>
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<tr>
<td>CABLE leader</td>
<td>CABLE student leader</td>
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<tr>
<td>CFA</td>
<td>Confirmatory Factor Analysis</td>
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<tr>
<td>CFI</td>
<td>Comparative Fix Index</td>
</tr>
<tr>
<td>CHC</td>
<td>Confucian-heritage culture</td>
</tr>
<tr>
<td>CMIN</td>
<td>The Minimum Discrepancy</td>
</tr>
<tr>
<td>FOB</td>
<td>Faculty of Business</td>
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<tr>
<td>GFI</td>
<td>Goodness-of-Fit</td>
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<td>NSSE</td>
<td>The National Survey of Student Engagement</td>
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<td>NFI</td>
<td>Normed Fit Index</td>
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<tr>
<td>RMSEA</td>
<td>Root Mean Square Error of Approximation</td>
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<td>PAL</td>
<td>Peer-assisted Learning</td>
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<td>PASS</td>
<td>Peer Assisted Study Session</td>
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<td>SEM</td>
<td>Structural Equation Modelling</td>
</tr>
<tr>
<td>UOW</td>
<td>University of Wollongong</td>
</tr>
</tbody>
</table>
# Table of Contents

Abstract ........................................................................................................... i

Acknowledgments ............................................................................................ ii

Certification ........................................................................................................ iv

List of Names or Abbreviations ........................................................................ v

Table of Contents ............................................................................................... vi

List of Figures ...................................................................................................... ix

List of Tables ....................................................................................................... x

Chapter 1: Introduction ......................................................................................... 1

1.1 Introduction ................................................................................................. 1
1.2 Research context – International students and higher education ................ 1
1.3 Purpose of the research .............................................................................. 6
1.4 Significance of the research ....................................................................... 7
1.5 Research questions .................................................................................... 9
1.6 Research contribution .............................................................................. 11
1.7 Thesis structure ....................................................................................... 13

Chapter 2: Introduction to the CABLE Program .............................................. 15

2.1 Introduction ............................................................................................... 15
2.2 Brief history of the program ..................................................................... 15
2.3 Operations .................................................................................................. 17
2.4 Impacts and achievements ....................................................................... 21
2.5 Conceptualising the CABLE program ..................................................... 24
2.6 Studies on the CABLE program ............................................................... 25
2.7 Chapter summary .................................................................................... 27

Chapter 3: Literature Review ........................................................................... 29

3.1 Introduction ............................................................................................... 29
3.2 Issues faced by students in higher education ......................................... 29
3.3 Peer mentoring as a solution to higher education issues ......................... 37
3.4 Chapter summary .................................................................................... 44
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.3 Research implications</td>
<td>144</td>
</tr>
<tr>
<td>8.4 Limitations and future research</td>
<td>147</td>
</tr>
<tr>
<td>8.5 Concluding comments</td>
<td>149</td>
</tr>
<tr>
<td>References</td>
<td>151</td>
</tr>
<tr>
<td>Appendices</td>
<td>171</td>
</tr>
<tr>
<td>Appendix 1 Letter from Associate Dean</td>
<td>171</td>
</tr>
<tr>
<td>Appendix 2 Letter from Senior Lecturer</td>
<td>172</td>
</tr>
<tr>
<td>Appendix 3 Email from Professor and Postgraduate Accounting Program Director</td>
<td>173</td>
</tr>
<tr>
<td>Appendix 4 Letter from Prior Executive Dean</td>
<td>174</td>
</tr>
<tr>
<td>Appendix 5 Letter from Dean, Sydney Business School</td>
<td>176</td>
</tr>
<tr>
<td>Appendix 6 Ethics Approval</td>
<td>177</td>
</tr>
<tr>
<td>Appendix 7 Number of Students Enrolled in Each Subject with Reference of CABLE Attendance</td>
<td>179</td>
</tr>
</tbody>
</table>
List of Figures

Figure 1-1: Chinese student enrolment from 2010 to 2019 3
Figure 1-2: Tertiary student experience in Australia 4
Figure 2-1: Number of student leaders recruited from 2010 to 2019 19
Figure 2-2: Number of workshops offered and number of attendees 21
Figure 2-3: Conceptualisation of CABLE 25
Figure 2-4: Triangle communication between CABLE and stakeholders 27
Figure 4-1: Student engagement styles (Coates, 2007) 46
Figure 4-2: Kahu’s (2013) student engagement conceptual framework 50
Figure 6-1: B-PAL workshop attendance in each subject over the period 2011 to 2016 93
Figure 6-2: Diagram of hypothesised relationship 101
Figure 6-3: Path model with workshop attendance 102
Figure 6-4: Plot diagram of psycho-social influences 104
Figure 6-5: Responses for Q48 107
Figure 6-6: Responses for Q49 108
Figure 6-7: Responses for Q50 and Q51 109
Figure 8-1: Kahu’s (2013) student engagement conceptual framework 145
List of Tables

Table 5-1: Research questions 63
Table 5-2: Subjects for Bachelor of Commerce (Accountancy) 65
Table 5-3: Bachelor of Commerce (Accountancy) students study pattern 66
Table 5-4: Number of students enrolled in each subject from 2011 to 2016 68
Table 5-5: Survey questions 70
Table 5-6: CABLE workshop participants vs non-participants from 2014 to 2016 77
Table 5-7: Student survey factor loading and Cronbach’s alpha 78
Table 5-8: Confirmatory Factor Analysis 81
Table 5-9: Composite Reliability and AVE 82
Table 5-10: Revised survey items 84
Table 5-11: CFA outcome 85
Table 5-12: Result for factor loading, AVE, and Cronbach’s Alpha 86
Table 5-13: Interview Questions 88
Table 6-1: B-PAL workshop participants vs. non-participants 94
Table 6-2: Comparison of academic performance between workshop participants and non-participants 95
Table 6-3: Difference between engagement level of workshop participants and non-participants 96
Table 6-4: Descriptive result of survey responses 97
Table 6-1: Bivariate correlation of all variables (N=205) 98
Table 6-6: Illustration of the Bootstrap method of test significance of mediation effects (=205) 101
Table 6-7: Simple Slope analysis and the Bootstrap result 103
Table 7-1 Themes for interview questions 117
Chapter 1: Introduction

1.1 Introduction
This thesis explores the effectiveness of a bilingual peer-assisted (B-PAL) study program for Chinese international students at the University of Wollongong (UOW), a mid-tier Australian regional university. As is common in many of today’s western universities, the UOW student cohort comprises a significant contingent of students from countries such as China and India. The relatively recent phenomenon of mass student movements between countries sits within the broader context of globalisation, just one of many strategies adopted by governments to expand export markets. In Australia, the significant intake of international students over the last two decades has also been driven by changes to Federal Government policy initiatives and funding mechanisms related to higher education. This mass intake of international students into Australia, primarily from China, has given rise to a number of educational challenges for this cohort of students, along with a range of responses by universities. It is to one of these responses, a bilingual peer-assisted study program known locally as CABLE (Chinese Academic Business Learning and Education), that the current thesis is directed.

This chapter sets the scene for the thesis with reference to the international context of higher education, then moves on to the purpose and significance of the research, more specific research questions, and the contributions of the thesis. Finally, the chapter includes a summary of the thesis structure that highlights the scaffolding of research objectives and research questions.

1.2 Research context – International students and higher education
Globalisation is the trend of economic and academic development for the 21st century (Altbach & Knight 2007; Altbach et al. 2019). It is now fundamental to the development of policy and

---

1 In February 1985, the Australian Government decided to allow universities to charge overseas students full fees, with a 10 per cent cap on international enrolments at Australian universities (Parliament of Australia 2014). The proportion of international students in Australian universities is growing (Australian Government Department of Education and Employment 2007; 2015).
practice of higher education institutions and features significantly in their internationalisation strategies (Altbach & Knight 2007; Altbach et al. 2019; Colbeck 2016; 2019; Hopper et al. 2017). With the implementation of internationalisation strategies, universities have engaged in joint international research initiatives, cross-cultural training programs, and student exchange opportunities to enhance the student experience and achieve international collaboration (Altbach & Knight 2007; Altbach et al. 2019; Hopper et al. 2017). Accordingly, students from developing countries have been provided with a range of opportunities to study in a foreign university in a developed country such as the United Kingdom, the United States or Australia, primarily where English is the instruction language (Altbach & Knight 2007).

As a result, the student cohort within universities in many developed countries has become more varied. Understandably, the variety of student educational and cultural backgrounds leads to a vast array of learning requirements and complex social needs, which in turn shape the respective teaching and learning environment (Henderson et al. 2017; Nölting et al. 2020). Universities need to focus not only on developing students’ expertise in a discipline (Dima & Ghinea 2016; Ramsden 1998) and the provision of high-quality education (Wygal et al. 2014) but also provide for the specific educational needs of particular cohorts of students (Molesworth et al. 2009; Wingate 2007). Catering to students’ educational needs, such as learning support and professional job skills, is a key success factor in higher education institutions (Molesworth et al. 2009; Wingate 2007).

In Australia, the education sector is the third-largest industry in the economy, contributing up to AUD 20 billion of export revenue each year (Arkoudis et al. 2019; Irvine & Ryan 2019). International students, predominately from Asian countries, are a major source of this revenue and have a significant impact on the financial health of Australian universities (Arkoudis et al. 2019; Deloitte 2015; Irvine & Ryan 2019). The most recent statistics show there are more than 700,000 international students currently studying in Australia, with more than 50% of these studying in universities (Australian Government Department of Education Skills and
Employment 2019). Of the source countries for international students, China provides nearly 30% of the international student cohort (Australian Government Department of Education Skills and Employment 2019).

Although in the long-term Australia is generally considered successful in terms of international student recruitment, fluctuations in enrolment numbers still cause serious concerns for Australian universities (Baik et al. 2015; Healey 2017). For example, as shown in Figure 1-1, Chinese student recruitment and enrolment recorded negative growth in 2011-2014. To ensure that Australia remains a destination of choice for international students, the Australian government has sought to understand and improve the educational experiences and satisfaction levels of international students (Arkoudis et al., 2019).

Figure 1-1: Chinese student enrolment from 2010 to 2019

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2 India is the second largest international student cohort. The rest of the international students are from Nepal, Malaysia, Vietnam, Singapore and others.
The Department of Education and Employment’s International Student Survey (2018) showed positive responses from the students surveyed. The 80,000 plus respondents expressed high levels of satisfaction with their arrival, living, learning, and the support received during their studies in Australia (see Figure 1-2). However, other studies such as Hellsten (2013) and Lamberton and Ashton-Hay (2015) remind us that international students still face many challenges when studying overseas. To ensure the continued attractiveness of Australian universities for international students, these institutions need to provide adequate support in terms of appropriate learning experiences and student wellbeing, especially during the transition process.

A positive transition process is important for international students because it impacts on subsequent learning, academic performance, and social and cultural enactment of educational delivery (Briggs et al. 2012; Nilsson & Ripmeester 2016; Prescott & Hellstén 2005). Many issues have been identified as causes of unpleasant experiences during the international students’ transition processes. For example, Khawaja and Dempsey (2008) find international students often experience incongruities between their expectations and the realities of university life, and, as a result, resort to dysfunctional coping strategies (such as substance abuse, behavioural disengagement, self-blame, and denial), a situation exacerbated by insufficient social support.

---

3Various university international student support programs have been established. For example, international mentor program, international student drop-in sessions, and others. For University of Sydney: https://www.sydney.edu.au/students/support-for-international-students.html For University of NSW: https://www.international.unsw.edu.au/support-for-students For University of Technology Sydney: https://www.uts.edu.au/current-students/info-international-students/services-and-support For University of Wollongong: https://www.uow.edu.au/student/support-services/
Sherry et al. (2010) indicate that international students also have lower perceptions of services received in foreign universities than domestic students, causing an “expectation gap” between their expectations of the offerings of “an excellent tertiary institution” and their experiences (p.4). Further, Smith and Khawaja (2011) find that language barriers, educational difficulties, loneliness, discrimination, and other practical problems hinder the acculturation experiences of international students during their transition period. More importantly, they conclude that the host institutions need to consider the use of intervention strategies to assist effective acculturation. Such strategies might include student mentoring or learning support programs (Campbell et al. 2012; Hellstén 2013; Leask & Carroll 2011).

Another layer was added to the complex learning and social challenges faced by international students courtesy of the 2020 COVID19 pandemic. In particular, the impact of the pandemic has been felt by Chinese students enrolled in foreign universities. In Australia, the borders are closed. Only Australian citizens, residents, and immediate family members were allowed to enter after 27 March 2020 (Australian Government Department of Health 2020). As a result, many international students were unable to enter Australia to commence or to continue with their studies, and universities offered a range of remote study modes to accommodate the needs of the affected students. These remote or virtual study modes present further challenges for international students, such as lack of social interactions, limited technological facilities, and isolation (Arasaratnam-Smith & Northcote 2017; Gillett-Swan 2017; Joshi et al. 2020).

As discussed, international students have become important sources of revenue for the Australian higher education sector, but in order to maintain a steady flow of satisfied students, the universities must firstly understand the particular educational and social needs of the various cohorts and offer substantive and appropriate support programs. The next section introduces one such support program offered at the University of Wollongong, which has been primarily directed
towards Chinese students enrolled in the Faculty of Business (FOB)\(^4\).

1.3 **Purpose of the research**

The purpose of this research is to evaluate the effectiveness of an existing student learning support program established at the University of Wollongong and to explore the potential applications in other higher education contexts. The program, known as CABLE, was established in the FOB, UOW in 2010 by a group of high-achieving students from China. CABLE aims to assist mainly Chinese students studying in a foreign university by offering bilingual peer-assisted (B-PAL) workshops, primarily in accounting and finance subjects. CABLE is student-led and faculty supported, and is primarily delivered via workshops tailored around specific subjects offered by the Faculty. Further details of the program are provided in Chapter 2. Within a short period of time after its inception, CABLE gained a reputation for aiding student learning within the Chinese student community. While there are a number of learning support programs within UOW, including the Peer Assisted Study Session (PASS) and Learning Development\(^5\), CABLE’s B-PAL workshops have attracted more Chinese student participants than the other programs\(^6\). An extensive literature indicates that participation in traditional peer-assisted learning programs such as PASS results in positive outcomes for students (Ginsburg-Block et al. 2006; Huang et al. 2013; Ward & Lee 2005), particularly in terms of improving academic performance (Hensen & Shelley 2003; Paloyo et al. 2016a), achieving higher rates of subject completion (Cheng & Walters 2009; Fayowski & MacMillan 2008), and increasing student engagement (Hodgson et al. 2013). However, traditional PASS programs are available to the entire student cohort and delivered in English, and are not specifically tailored to the needs of international students, and the literature does not effectively address alternative support programs such as CABLE and its bi-lingual approach (except for those studies conducted by staff and leaders connected with CABLE – refer to Chapter 2 Section 2.6).

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\(^4\) At the time of CABLE’s establishment, the Faculty was known as the Faculty of Commerce, and from 1st July 2020 the Faculty of Business and Law.

\(^5\) UOW PASS program: [https://www.uow.edu.au/student/support-services/pass/](https://www.uow.edu.au/student/support-services/pass/)

\(^6\) The CABLE program attracts average of 900 Chinese students for CABLE workshops per year for workshop participation.
This thesis addresses this gap in the literature with an examination of the effectiveness of the CABLE program in terms of student performance and engagement. This examination is undertaken with reference to a holistic student engagement framework offered by Ella Kahu (2013). This framework is centred around student engagement, with attention to its influences and consequences, and is used to evaluate the impact on Chinese students’ participation in the CABLE program over six years.

### 1.4 Significance of the research

This research is significant in four respects. First, it specifically relates to the largest international student cohort in the Australian higher education sector. Chinese students account for one-third of international students, with almost half of these enrolled in accounting and other commerce-related disciplines (Australian Trade and Investment Commission 2018). For Australian universities, the provision of learning and pastoral care to international students takes higher priority as it is important to both institutions’ financial and academic performance (Arkoudis & Tran 2010; Molesworth et al. 2009; Sawir 2005; Wingate 2007).

Second, international students face numerous barriers to a successful transition into Australian universities, including the challenges of enculturation, socio adaptation, language, communication, and academic skills (Deumert et al. 2005; Hellstén 2002; Robertson et al. 2000; Sawir 2005). For example, Chinese students experience language barriers (Campbell & Li 2008; Gu & Schweisfurth 2006; Sawir 2005; Wang et al. 2015), academic stress (Ryan 2011; Xu 2012), culture differences (Gu et al. 2010), and social challenges (Neri & Ville 2008), along with problems related to the content of their courses in a foreign university. As such, it is imperative that universities provide Chinese students with learning and other support to facilitate the successful transition into a foreign-study context. Miao, Henderson and Supply (2017) examine the transition benefits of an online pre-departure peer program for Chinese students studying in an Australian university. The research finds the in-coming offshore Chinese students have a better understanding of services provided by the university, increased knowledge of Australian culture,
and confidence to speak English, and new friendships. However, one limitation of the program is
the insufficient number of post-arrivals facilitated meetings to augment its benefits. Thus, the
current evaluation of the CABLE program provides insights into the effectiveness of this program
in terms of student engagement and academic achievement when they are studying in Australia.

Third, the study of accounting necessarily requires mastery of the technical, linguistic, and
contextual elements of the discipline, and the CABLE program intentionally moves beyond the
traditional focus on the technical to the linguistic and contextual elements of the discipline.
Traditionally, accounting education prioritises the technical skills required to satisfy the needs of
professional practice (Boyce et al. 2012) and a highly structured knowledge based on regulatory
requirements (Gray & Collison 2002). In the post-Enron environment, it is suggested that
professional accounting bodies and accounting education providers need to develop in students a
sense of business accountability and responsibility, which is sympathetic to the public interest
(Wilson 2015). There have also been calls by accounting academics for incorporating ethics,
social, and environmental accountability in accounting education (Boyce et al. 2012; Gray et al.
1994; Gray & Collison 2002; Thomson & Bebbington 2004). Attention to these issues increases
the complexity of the university accounting curriculum. However, this presents a problem for
some Chinese students, as it has been suggested that they typically rely on memorising content to
pass the examinations, and that they are not interested in exploring the ‘how’ and ‘why’ subtext
in knowledge (Jackling 2005; McGowan & Potter 2008; Sugahara et al. 2008). As a result,
Chinese students may be better at grasping the technical aspects of accounting but may struggle
with the more discursive and conceptual elements of the discipline. Furthermore, the accounting
profession in Australia claims that Chinese students do not possess the relevant qualities to be
employed in Australia after completing their degrees (McGowan & Potter 2008). Particularly,
they are thought to lack verbal and written communication skills (Sonnenschein & Ferguson 2020;
Huang & Turner 2018). In addition, accounting graduates have been criticised for their lack of
professional competencies, including communication, analytical skills, and critical thinking
(Apostolou et al. 2019; Apostolou et al. 2015, 2017). Thus, this thesis investigates whether the
CABLE program can assist Chinese students in overcome some of the aforementioned learning barriers by helping them to gain a broader understanding of accounting, and hence enhance their skills which may improve their employment opportunities.

Last but not least, this research is focused on the value of the CABLE program from the perspective of Chinese international students studying at a foreign university. Earlier research into the CABLE program was undertaken from the perspective of academic staff and faculty management, and explored their attitudes towards, and the perceptions of, the program, and found strong support for its pedagogical value and social support opportunities (Cui et al. 2015). The research in the current thesis continues to explore the effectiveness of the program; however, the focus is shifted to an evaluation from the students’ perspective. The findings of the thesis are especially relevant for UOW given its strategic focus on empowering future students by delivering programs to support their success (UOW 2020), and are more broadly relevant for other higher education providers who have similar enrolments of international students and who are interested in improving the support for these students.

1.5 Research questions

As indicated in the foregoing sections, the CABLE program has the potential to provide a sound support mechanism for international students studying in a foreign university. Given the importance of international student fee revenue for higher education providers in Australia and several other Western nations, there is an imperative to understand the needs of these students and provide support programs to enhance their educational experiences and academic outcomes. The universities are morally obligated to recognise difficulties faced by students and to provide adequate support services to mitigate the effects. Accordingly, this thesis is focused on evaluating the CABLE program, specifically via the following research questions:
RQ1) To what extent does participation in CABLE program improve student engagement and academic performance?

This research question examines the effectiveness of the CABLE program in assisting student learning and improving academic outcomes. This research question is explored by a statistical analysis of student participation and academic performance, via survey responses (205 completed) and the academic results of students enrolled in relevant subjects during the period 2011 to 2016 (5757 records). The response to this question may be found in Chapter 6 Section 6.2. The analysis reveals evidence that participation in CABLE impacts student engagement and academic performance.

RQ2) Which student engagement factors impact on engagement and perceived academic performance of the CABLE program participants?

This question aims to identify the influential psycho-social factors that impact on student engagement levels and thus their perceived academic achievement. As there was a limited number of survey responses, perceived academic achievement is used instead of students’ actual academic performance. Further detail is provided in Chapter 5 Section 5.4.3. These psycho-social factors are defined in Kahu’s (2013) framework and include motivation, self-efficacy, skills, and identity. This research question is explored via a path analysis of student survey responses. The response to this question may be found at Chapter 6 Section 6.3.

RQ3) What motivates Chinese students to participate in the CABLE program and what is their experience and perceptions of the workshops?

This research question aims to determine why Chinese students choose to attend CABLE, which is only one among a number of student support programs offered by UOW. This research question is explored via thematic analysis of open-ended survey questions and interviews and triangulated with survey data analysis. The answer to this question can be found at Chapter 7 Section 7.3, 7.4, 7.5 and 7.6, and it provides insight into the student
perspective, which is not only important for the improvement of the program, but for university support programs more broadly.

1.6 Research contribution

This thesis makes contributions across three areas. First, a contribution is made to the literature that has developed around the needs of international students, particularly in terms of student support programs. Second, a contribution is made to theory, with empirical support for the Kahu (2013) model of student engagement. Third, the thesis provides a practical contribution in terms of educational practices and support mechanisms for international students, a contribution that becomes even more important in the contemporary context of the COVID19 pandemic and its devastating impact on the movement of students to foreign universities.

1.6.1 Contribution to the literature

First, this thesis identifies and fills a gap in the educational literature concerning the effectiveness of a comprehensive support program such as CABLE. Previous research has studied the impact of individual support programs such as bilingual education, peer-assisted learning, and social networking on the learning experiences of international students (for example, see Cummins 2001; Khawaja & Dempsey 2008; Van Der Meer & Scott 2009). One such study identifies the difference between various student support programs. Supple, Best and Pearce (2016) interviewed a group of Peer Assisted Study Session (PASS) leaders on their choice of using their first languages in delivering a session in the University of Victoria, Australia. This group of PASS leaders sometimes used their first language (Chinese or Vietnamese) to create a sense of belonging during the session to engage international students from the same cultural background in collaborative learning (Supple, Best and Pearce 2016). The research focuses on the perspective of the choice and rationale of language used in the session, not on the learning outcome and student’s achievement. In addition, to my knowledge, the literature has not yet evaluated an approach that integrates the abovementioned programs, with the exception of studies conducted on the CABLE
program at UOW (see Chapter 2 Section 2.6 for detailed discussion of these studies). This thesis provides useful insights into an integrated approach, particularly in terms of how it can assist students’ learning and whether it has a positive impact on students’ academic performance. Research such as this makes a valuable contribution to the literature by extending its boundaries (Gendron 2013).

1.6.2 Contribution to theory

This thesis applies and adapts Kahu’s (2013) student engagement conceptual framework in the evaluation of a student learning support program. This framework was introduced by Kahu (2013), who later used it to examine the relationship between academic emotions and student engagement (Kahu et al. 2015). However, as indicated by Kahu (2013), “more research is needed to further explore the relationships within the framework to strengthen our understanding of each element” (p.769). Thus, it is suggested that although the framework highlights the relationship between various student engagement factors and consequences, little has been done to empirically verify the established relationships. This thesis provides an empirical examination of Kahu’s (2013) framework, focusing on the relationship between the antecedents of student engagement and the proximal consequences achieved via better student engagement, and in doing so confirms the theoretical agility of the framework in terms of exploring student engagement in a higher education context. This examination is conducted with reference to the results of a survey that was constructed by the author, drawing on a number of survey instruments and relevant factors as identified in the research literature. Kahu (2013) also proposes that in some instances, her framework may be used in a narrower way, with the focus on a single institution in order to minimise the over-generalisation of student experiences. In this sense, the current study has focused on a particular program at one Australian university, providing sound evidence around

7 In Kahu’s (2013) framework, antecedents comprise structural influences (for example, university culture, policies, student background, support, and other influences) and psychosocial influences (university teaching staff, workload, student motivation, skills, identity, self-efficacy, and other influences). Consequences comprise proximal consequences (for example, academic learning achievement, social satisfaction, and wellbeing) and distal consequences (for example, academic retention, social personal growth, and other consequences).
the success of the program to enhance the learning experiences of its student participants. Having said this, though, the author argues for the potential for this model of support to be applied in other contexts; that is, other universities and other international student cohorts.

1.6.3 Contribution to practice

In addition, this thesis has the potential to make a practical contribution to other higher education contexts in which a minority group requires additional learning support. As discussed above, with diversified student cohorts studying in Australian universities, it is crucial to provide appropriate educational assistance to them (Arkoudis & Tran 2010; Sawir 2005). Insights into the experiences of a student program such as CABLE may be used to inform similar programs designed to cater to international students and their particular learning needs. For example, as Indian students comprise the second highest intake of international students enrolled in the Australian education sector (Colbeck 2016), the findings of this thesis could be used to tailor programs for the particular needs of this cohort.

In addition to assistance with learning, the need for social support has been identified as crucial for international students studying in a foreign country (Marginson et al. 2010). As will be explored in Chapter 2, one of the unique features of the CABLE program is the provision of social support alongside academic assistance. Kahu (2013) states that students’ social satisfaction and wellbeing may be achieved by facilitating better student engagement. This thesis provides some empirical evidence to verify this relationship; an insight which may be promoted in situations where social support is seen as essential in the transition of international students into a foreign university.

1.7 Thesis structure

The remainder of this thesis is presented as follows. Chapter 2 provides background information on the CABLE program, with reference to its history, development, management, and operation. Chapter 3 presents a review of the relevant literature, covering a broad range of student teaching
and learning issues that underpin and inform the practices of the CABLE program. Chapter 4 introduces the theoretical framework; that is, the Kahu (2013) student engagement conceptual framework. This framework is centred around student engagement, and it establishes influences on, and the consequences of, student engagement. Influences are presented within categories of structural and psycho-social, while consequences are presented in terms of proximal and distal. Given the scope and nature of the data, the current thesis excludes an examination of structural influences (e.g. university culture and policies), as well as university psycho-social influences (e.g. staff and workloads). This thesis examines the CABLE program from the perspective of students currently enrolled at the university. Thus, Kahu’s (2013) framework is partially adopted, addressing only psycho-social influences on student factors (motivation, identity, self-efficacy, and skills), student engagement, and proximal consequences (academic learning and achievement). The research methodology is presented in Chapter 5, with justification for the use of a mixed methods approach. The results are progressively presented in Chapter 6 (quantitative analysis of the student surveys) and Chapter 7 (qualitative analysis of the student interviews). Chapter 8 concludes the thesis, highlighting the contributions of the research, outlining its limitations, and suggesting directions for future research.
Chapter 2 : Introduction to the CABLE Program

2.1 Introduction

This chapter provides information about the CABLE program, including its history, its operations, and breadth of impact. CABLE was established in 2010 and has been operating for more than ten years. During this time, the program has delivered workshops and social activities for UOW international students, mainly those from mainland China enrolled in subjects in the FOB. At both the Faculty and University levels, CABLE has been recognised as a program actively contributing to the student university experience, and its student leaders have received many prestigious awards.

2.2 Brief history of the program

CABLE, formerly known as the Chinese Commerce Academic Development (CCAD) group, was established by a team of academically high-achieving Chinese students in the FOB at UOW. From 2010, the CABLE program has developed through three important stages.

In Stage One, from 2010 to 2013, the program operated as an informal student association. It had between ten to fifteen student leaders, and workshops were limited to accounting and finance subjects. Workshops were conducted in Mandarin and only available to Chinese accounting students. There was no formal reporting about the program to the FOB, and there were only infrequent conversations between a handful of academic staff members and CABLE student leaders (CABLE leaders).

In 2014 (Stage Two), CABLE undertook a vital transformation, by officially affiliating as a UOW student club and developing a constitution as per UniPulse8 standards. The affiliation granted

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8 UniPulse is the campus services hub designed to enrich students’ time on campus through support and the creation of a great campus life experience (https://pulse.uow.edu.au/).
CABLE access to UOW student club funding to support its operations and to streamline its lines of reporting. CABLE established an executive team to oversee its operations and to take on responsibility for the disclosure of performance to both UniPulse and the FOB. Moreover, in addition to workshops, CABLE began hosting social and sports events for its members and students from the broader university community. These events included badminton and table tennis tournaments, barbeques and trivia competitions. These events enabled CABLE leaders to engage with students outside of workshops, which anecdotally resulted in positive networking and support amongst the participants. However, by this stage, the first group of student leaders began completing their studies, with many of them leaving UOW upon graduation. CABLE suffered a loss of key members and faced challenges to sustain the program.

In 2016, at the start of Stage Three, the program underwent another significant transformation. New student leaders joined CABLE from other countries such as Vietnam, India, Fiji, Malaysia, Sri Lanka and Australia. With these newly recruited student leaders, CABLE started to deliver many English workshops to support a range of students studying in the FOB, along with coverage of other subjects offered in the faculty. In doing so, CABLE evolved to form more of an internationalised learning support program, quite different from its beginnings where only Chinese students were supported. It should be noted at this point that the data analysed in this thesis covers the period 2011-2016, so the examination touches only the early part of Stage Three development, and is concerned with the bi-lingual aspects of the CABLE program. The move to an internationalised learning support program and its effectiveness with a broader range of students is beyond the scope of this thesis.

Although not a planned change, CABLE has in recent months responded to the 2020 COVID19 pandemic and the challenges that it presented to UOW international students. CABLE connected with students via the WeChat social media platform⁹ and initially responded to numerous

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⁹ Wechat is a Chinese multi-purpose messaging, social media, and mobile payment app developed by Tencent. People can share their own stories under the function named Moment. Only friends can see each other’s posts. Facebook is
enquiries. After that, it delivered virtual workshops as a means of engaging students and assisting them with their learning. In the Autumn 2020 session, 16 workshops were delivered to 278 student participants, of which 133 were Chinese. This response reflects the agility of CABLE to connect with students and respond in a timely manner to their needs.

2.3 Operations

2.3.1 Vision & mission statement

The program is described as:

CABLE is a program where a group of academic high-achievers in [the] Faculty of Business, University of Wollongong, dedicated to helping peer students academically in accounting, economics, finance, management and other relevant majors, provide and share experiences of studying and living overseas. To fulfil our aims, our group is academically focused, socially innovative, [and] aims to build community engagements. Our group gives high priority to first-year international students, to help them overcome early-stage university difficulties, to reduce failure rates and increase retention.10

As shown in the above statement, CABLE aims to help international students transition into life at UOW and improve their academic results. To achieve this aim, CABLE offers academic and social support to students through informal peer-led workshops and social activities. CABLE is different from a typical social-oriented cultural program. Many cultural-based student clubs at UOW provide language and cultural events to facilitate on-campus multiculturalism. In comparison, CABLE is more academically focused. However, compared to student learning support programs such as that offered by the Learning Development unit at UOW and PASS, CABLE also engages with students in the social context. Therefore, CABLE is unique, representing a hybrid of a formal student learning support program and a cultural student community.

2.3.2 Membership and administration

Membership of CABLE is voluntary and fee-free. In the first stage (2010 – 2013), the program

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used Chinese social media to notify students of upcoming workshops, and students attended the workshops without any registration. Since 2014, individual students have been required to register at the UOW student Club and Society website to become a formal club member. Upon registration, they receive an email notification regarding future CABLE events. At present, CABLE has a total of 361 active members.

In its early days, CABLE had no formalised administration system, and all affairs were discussed among student leaders in a casual manner. In 2014, the program established an elected executive committee (including a chairperson) to make decisions and lead activities. The committee is responsible for managing essential program activities including the scheduling of workshops, student leader recruitment, training, event planning, coordination, and preparing annual reports for UniPulse and the FOB. Frontline activities such as workshops are carried out by CABLE leaders.

Before 2017, recruitment of student leaders relied on personal relationships among the Chinese students and word of mouth. Since 2017, anyone interested in becoming a student leader in CABLE is required to contact the executives to express their interest, and subsequently lodge a formal application including basic information and their motivation to join CABLE. After receiving the applications, the executives interview the applicants and assess their capability of delivering the workshops. Once selected, newly recruited leaders are required to participate in a training program and are paired with senior CABLE leaders for mentoring purposes. Often new student leaders are placed into workshops with senior student leaders so they can observe and learn from them. Such mentoring relationships help the mentee to prepare and develop his/her teaching style and to receive feedback for improvement. Progressively, new student leaders develop their experience and competencies in delivering the workshops and often move into a senior role. CABLE recruited a total of 114 student leaders during the period 2010 to 2019, as shown in Figure 2-1. The number of new student leaders increased significantly after 2017 as a result of the program’s transition from a Chinese student association to an internationalised
program. It should be noted that the impact of CABLE participation on other international students is outside the scope of this current research thesis, however this information is provided to show the capacity of the program to transform in response to perceived needs.

![Figure 2.1: Number of student leaders recruited from 2010 to 2019](image)

### 2.3.3 Financial support

Before CABLE’s affiliation with UniPulse, the program received a small amount of financial support from the FOB. Since 2014, CABLE has qualified for funding through the UOW Student Services and Amenities Fee, where such funding is used to cover expenses for workshops and other events, including venue hire, catering, and stationery.\(^{11}\)

### 2.3.4 Workshops

As CABLE is academically-focused, workshops comprise the program’s primary activity. In these workshops, student leaders demonstrate problem-solving techniques and study skills to the student participants, help them review subject content, and prepare for exams. Between 2010 and 2013, student leaders conducted the workshops to fit in with their own timetables and there was no centralised scheduling of the workshops. When the executive committee was formed in 2014, formal planning was conducted for each session. First, student demand for workshops was determined through various communication channels, such as word of mouth, the CABLE program.

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\(^{11}\) Neither executives nor student leaders are monetarily remunerated. The program maintains its voluntary nature.
website, WeChat and other social media. After the executives had collected the expression of interest in workshops, meetings of the executive and CABLE leaders were held to identify the availability and preferences of CABLE leaders for workshops. A member of the executive committee would also liaise with relevant subject coordinators to obtain consent and support for the workshops for their subject. Student leaders were assigned to specific subjects by the executive, and then a workshop schedule was prepared and published on the CABLE website and other social media platforms.

CABLE uses its own materials which are prepared by the CABLE leaders. During the 2010 to 2013 period, materials were developed by the CABLE leaders with reference to their own study notes and summaries, but since 2014, workshop materials have been refined and further developed with the help of FOB academics. Regardless of whether the workshops are conducted bilingually or in English, all materials, including presentation slides, practice questions, and topic summary documents, are in English. In general, one to two workshops are scheduled for each subject per session, and these are typically delivered before the mid-session and final exams.

2.3.5 Workshop participation

CABLE workshops are available to students free of charge. The participants of each workshop are required to sign an attendance sheet providing details, including name, student number, and UOW student email address, primarily so that the executives can keep track of the demand for particular subjects. Figure 2-2 shows the number of workshops offered and the workshop attendance each year from 2010 to 2019 (note that the current study examines the experiences and results of students for the period 2010-2016). The majority of workshops covered subjects in accounting and finance with a small number of workshops in marketing and management subjects, for both undergraduate and postgraduate courses delivered in the Wollongong and Sydney campuses (workshops offered in the Sydney campus from 2017). At present, the ratio of Chinese to non-Chinese student leaders, and bilingual and English workshops are both roughly at 1:1.
2.4 Impacts and achievements

Since 2012, CABLE workshops have averaged more than 900 student attendees per year, and the sports and social events have attracted around 350 per year. These participants include both domestic and international students from many cultural backgrounds. Anecdotally, the impact on student engagement and learning is significant, and this has been recognised by the faculty’s executives, academics, and other staff (FOB Annual Report 2018). Further, the Faculty’s Associate Dean (International and Accreditation) notes that:

*The Chinese Academic Business Learning and Education (CABLE) group offers academic and social support to Business students through informal, peer-led, bilingual study sessions that aim to build subject knowledge, cognitive skills, and self-efficacy. The program establishes and sustains a community that promotes and supports student learning. Demand for CABLE is such that it offers academic workshops across more than 20 subjects per session as well as being active in UOW and the broader Wollongong community – Associate Dean (International & Accreditation), Faculty of Business, UOW – Appendix 1.*

Similarly, FOB academics have expressed positive views on CABLE’s provision of additional learning assistance to students:

*The importance of their collaborative effort is felt through both additional academic instructions and personalised attentions made available to students. Recognising and embracing the needs of students in academic learning, the program also exemplifies respect and concern for diversity in learning. Based on both my first-hand experience with the program and feedback received from the students who experienced the program, I believe that the group has been serving its purpose with integrity and perseverance – Senior*
Over the past years, I have witnessed CABLE move from a grassroots organisation to fill a need for peer learning in the Faculty of Business. CABLE has moved from strength to strength to become an invaluable support for both undergraduate and postgraduate students. Whether this is as a mentor or mentee. As discipline leader for four (4) years, I can attest to the difference CABLE has made for those attending sessions, but more importantly for the ‘army’ of students that provide peer mentoring and support – Professor and Postgraduate Accounting Program Director, Faculty of Business, UOW – Appendix 3.

In addition, the FOB Finance & Analytic Unit reports that CABLE has a significant positive impact on student retention (Lasek 2019). This report reveals that Chinese students attending CABLE workshops have significantly lower levels of attrition compared to those that do not attend these events. At both undergraduate and postgraduate levels, Chinese students attending CABLE workshops record attrition of 2.4% and 3.6% respectively, compared with 8.6% and 11.4% for those Chinese students that did not attend (Lasek 2019).

Beyond the faculty, CABLE’s impact on student engagement and learning has been widely recognised, with the program receiving many major UOW student club awards, including:

- Student Development Award (Winner 2016 & 2019, Highly Commended 2017), which is awarded to clubs for creating a positive experience for their members, and for making an exceptional contribution to learning and development and enhanced student involvement in the campus community and industry.
- Club of the Year Award (Winner 2018, Highly Commended 2019), which is awarded to the club that provides outstanding service to its members and for showing exemplary club leadership.
- Club Person of Year (Winner 2019), which is awarded for a club person that has provided outstanding service to their club and who has been an inspiration for others within the club and the wider community.

When awarding CABLE, the Club of the Year Award in 2018, a UniPulse representative commented that the CABLE program is “Peer learning at its finest”.

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In 2020, CABLE received the UOW Vice-Chancellor’s Award for Outstanding Contribution to Teaching and Learning (OCTAL) in the category of “Program that enhances learning” (UOW OCTAL 2020). In supporting CABLE in its application for the OCTAL award, FOB executives in their referee reports emphasised the program’s positive impact on student learning and engagement:

"Given these excellent academic outcomes, CABLE featured prominently in the Faculty of Business achieving full, five-year accreditation by the Association to Advance Collegiate Schools of Business (AACSB). AACSB accreditation Standards 4, 10, and 13 deal with student progression, student-faculty interactions, and student academic and professional engagement, respectively – Executive Dean, Faculty of Business – Appendix 4.

CABLE helps all students by offering workshops that are inclusive, student-led, and student-focused. Their supportive approach gives students an additional opportunity to raise issues they are concerned about in the confidence that they will be listened to respectfully and given advice by others who have succeeded in the same academic program. This helps with transition to study in Australia – Dean, Sydney Business School, Faculty of Business – Appendix 5.

Beyond UOW, the program was a finalist in the 2019 Australasian Peer Educators Team Award, which recognises peer-assisted learning teams that have demonstrated outstanding collaboration, and the effectiveness of teamwork in innovation, creativity, and sustainability of the program (UOW PASS 2020). The abovementioned prizes and recognitions are a reflection of CABLE’s continuous commitment towards student learning and engagement.

In addition to the above, CABLE leaders have received numerous individual awards. At the faculty level, many student leaders are enrolled in the Dean’s Scholar Program13 and have been included in the Dean’s Merit List awards14. Two of the student leaders were awarded University Medals15 in 2011 and 2016, in recognition of their outstanding academic performance at the

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13 The Dean’s Scholar Program is offered as part of the Bachelor of Commerce degree for high achieving single degree students. This degree encourages students to continue their studies through to the completion of honours and research degrees. The entry admission is higher than the Bachelor course. In addition, the Dean’s Scholar Program requires students to maintain a minimum ongoing weighted average mark of 75 to remain in the program. ([https://www.uow.edu.au/business/current-students/student-resources/deans-scholars-program/](https://www.uow.edu.au/business/current-students/student-resources/deans-scholars-program/))

14 Dean’s Merit List – Each Faculty prepares a Dean’s Merit List at the conclusion of each academic calendar year. Each list comprises the top 5% of undergraduate students and those who obtained first class honours.

15 University Medal – The highest university level award to recognise student’s outstanding academic performance, with a maximum of two University Medals per faculty per year. ([https://documents.uow.edu.au/about/policy/UOW058722.html#P187_12089](https://documents.uow.edu.au/about/policy/UOW058722.html#P187_12089)).
university level. One student leader was awarded the Robert Hope Memorial Prize\textsuperscript{16} in 2011, which is the most prestigious student prize at UOW, recognising exceptional academic performance, outstanding leadership, and a significant contribution to the university and the wider community. Since 2018, student leaders’ contributions have been recognised by UOWx\textsuperscript{17}, whereby their co-curricular involvement and skill development are recognised in a formal UOW document. UOWx considers that CABLE leaders have the qualities employers often look for, including leadership, mentoring and wellbeing, collaboration and communication, community and social change, and global and cultural awareness (UOWx 2020). The awards and recognition highlight the academic excellence of the student leaders engaged by CABLE; one of the characteristics that underpin the success of the program.

2.5 Conceptualising the CABLE program

As mentioned above, CABLE is a complex student program which engages Chinese students, other international students, domestic students and university staff members in many ways. Although the program’s main activity is conducting bilingual study workshops, its communication with students occurs through many other events and channels, both on- and off-campus. Based on the hybrid nature of the program, this thesis posits that CABLE can be defined as the integration of bilingual education, peer-assisted learning (PAL), and international student education support, as shown in Figure 2-3. In Chapter 3, the bilingual peer-assisted learning (B-PAL) approach is discussed in more detail.

PAL programs focus on academic support and have been considered an effective strategy for improving international students’ transition and performance (Dawson et al. 2014; Leask 2009). However, since PAL workshops are generally English-only, there is little discussion on whether

\begin{footnotesize}
\textsuperscript{16} The Robert Hope Memorial Prize –is awarded by the University Council (https://www.uow.edu.au/student/graduation/robert-hope/).

\textsuperscript{17} UOWx is a service that helps connect students with learning opportunities and experiences outside of their academic coursework. A UOWx record is an official UOW document used as evidence to showcase the skills and knowledge that students have gained in addition to their degree. https://www.uow.edu.au/student/uowx/#!en.115494

\end{footnotesize}
PAL programs could or should be conducted in another language. On the other hand, international student mentoring programs often use bilingual international students to communicate with and mentor their co-cultural peers (Urban & Palmer 2014), but the relationship is normally on a one-on-one basis and very casual. CABLE is thus uniquely positioned at the intersection of these approaches. It uses bilingual instruction as a means to assist Chinese students to better understand academic content and its student leaders often provide mentoring support as well. Therefore, to investigate whether and how the CABLE program improves Chinese students’ learning, a holistic approach is needed to consider the unique characteristics of the CABLE program.

![Figure 2.3 Conceptualisation of CABLE](image)

2.6 Studies on the CABLE program

A number of studies have been conducted by CABLE leaders and academic staff members into the UOW CABLE program. Cui et al. (2015) investigate politico-socio factors influencing the teaching of Chinese accounting students in Australia, using UOW student data from 2010-2013. The results show that CABLE’s B-PAL approach positively influences Chinese students’ academic performance in accounting subjects, especially in theoretical subjects, where an understanding of complex concepts is required. Furthermore, the study concludes that the CABLE program improves student academic performance because it provides them with the necessary academic and social support to overcome difficulties, including language barriers and exam
The reflections of the CABLE program by UOW faculty executives and academic members are provided by Cui et al. (2015). These reflections indicate that faculty executives consider CABLE to be a valuable addition to other learning support programs at UOW. More importantly, they believe that CABLE could be used as an intervention strategy for struggling students, particularly when students are perceived by staff as lacking both English proficiency and academic skills.

Huang et al. (2015; 2018) outline that CABLE’s influence on UOW students is observable in social media and on internet platforms. Huang et al. (2018) conclude that the internet-based peer-assisted learning, which co-exists with on-campus B-PAL workshops provides a useful complement to face-to-face teaching and learning. The studies examine CABLE’s online presence and activities on international students’ social support.

Xu (2016) follows the learning journey of three Chinese students at UOW and suggests that attending CABLE workshops is an important part of their learning, primarily through the sense of community belongingness it provides and the opportunity to connect with co-culture senior and peer students.

Lastly, Cui et al. (2019) use an autoethnographic approach to explore CABLE organisers’ understandings of the program and how they make sense of the B-PAL practices. They find that CABLE leaders consider themselves to be role models when delivering B-PAL workshops and participating in other events. Thus, being able to help co-cultural peers contributes a sense of pride and self-actualisation in the CABLE leaders.

In summary, the above studies reveal the relationships between the CABLE program and its key stakeholders, and these are reflected in Figure 2-4. It is noted though that these studies have not comprehensively investigated the views of the most important stakeholders of the CABLE
program, namely the participating students. As such, this thesis examines the relationship between the program and workshop participants, with a special focus on the program’s effectiveness in improving student engagement and academic performance.

![Figure 2.4 Triangle communication between CABLE and stakeholders](image)

2.7 Chapter summary

In summary, this chapter outlines the establishment, operations, and impact of the CABLE program. Feedback from various stakeholders highlights the program’s contribution to improving student engagement and learning, and this success has been recognised by FOB, the university and beyond. CABLE has operated for ten years, which is uncommon for a voluntary student-led program, and it is suggested that the continuous engagement and support from various stakeholders, particularly its student organisers and leaders, have been essential to its longevity.
This chapter outlines the development of the CABLE program over the years, and in doing so reveals its increasing responsiveness to the needs of international students. The program’s strength lies with its leadership and philosophy, namely to support international students in their Australian learning experiences, through attention to academic and social needs. The program is delivered by high achieving students, who are able to draw on their own learning experiences and who create a learning environment that is sensitive to the cultural, social, and educational needs of international students.

While this chapter has pointed to a selection of accolades for the program, and insights from academic staff and leaders, the current research study aims to comprehensively evaluate the program from the perspective of workshop participants. This evaluation is in terms of the program’s effectiveness in improving student engagement and academic performance. Given the nature of the CABLE program and the desire to gain a rich insight into its purported success, the next chapter explores the relevant literature.
Chapter 3 : Literature Review

3.1 Introduction

This chapter provides a review of the literature concerning international students in higher education, student mentoring programs, the Chinese learner, bilingual education and peer-assisted learning. It is presented in four sections. Section 3.1 provides a very broad outline of student issues in higher education, before narrowing the focus to issues related specifically to Chinese students in higher education. Although the scope of these issues is varied and vast, Section 3.2 presents some of the solutions that may be appropriate in addressing these issues. Section 3.3 narrows the focus even more to the issues and solutions that arise in accounting education. Finally, section 3.4 summarises this chapter.

3.2 Issues faced by students in higher education

Student success and retention are key issues that universities have dealt with for decades (Crosling et al. 2009; Jones-White et al. 2010; Kahu & Nelson 2018; O’Keeffe 2013; Tinto 2012; Yorke & Longden 2004). Universities measure student success from different perspectives, including educational attainment, academic achievement, and student experience (Cuseo 2014; Jones-White et al. 2010; Tinto 2012). Achieving a high completion rate is a priority objective for many universities (Australia Government Department of Education, Skills and Employment 2017; Nietzel 2019). However, the completion rate for bachelor students in the higher education sector across OECD countries is just 80 per cent, and among these students, only 40 per cent complete within the expected duration (OECD 2019). In addition, one-fifth of students drop out without completing a qualification due to various reasons, including poor preparation for higher education, low admission standards, inadequate academic support, lack of social integration, and a financial burden (Clarke 2007; Crosling et al. 2009; Cuseo 2014; Kahu & Nelson 2018; OECD 2019). In Australia, student attrition often leads to universities’ loss of revenue, as government funding is directly related to the completion rate (Australian Government Department of
Education and Employment 2019). In order to minimise the revenue loss and secure government funding, universities are expected to increase their completion rates by assisting less prepared students in succeeding in higher education (Australian Government Department of Education and Employment 2017).

Furthermore, nearly one-third of higher education graduates are not equipped with the expected job-ready skills of their chosen field of work (Edwards & McMillan 2015), such as information processing skills, literacy and numeracy proficiency skills, transferrable skills and enhanced critical and ethical thinking (Bank 2002; Brustein 2007; Crosling et al. 2009; Edwards & McMillan 2015; Friedman et al. 2019; Gerstein & Friedman 2016; Higher Education Standards Panel 2017; OECD 2019). Lack of essential skills often leads to poor graduate outcomes and employability (Gerstein & Friedman 2016). Thus, universities must ensure their educational programs incorporate strategies to build and equip students with essential skills.

The higher education sector has also expanded in the last decade, as reflected for example, in an increase in enrolment numbers of around 10% from 2005 to 2015 across OECD countries. The proportion of young people (aged from 19 to 25 years) in OECD countries with a university degree has also increased steadily in recent years to approximately 50% (OECD 2019, p. 29). Higher education students from China feature significantly in this upsurge, moving from around 7.4 million students in 2000 to nearly 45 million in 2018, with 900,000 enrolled offshore in 2017, primarily in OECD countries (Gu et al. 2019). Broadly speaking, this movement to higher education does in fact pay off, as university graduates receive higher earnings and achieve better social status, health, and wellbeing than those without a degree (Hornsby & Osman 2014; Ionescu & Cuza 2012; Kim et al. 2018; OECD 2019). When the focus is narrowed to students from developing countries, international educational experiences have tended to greatly enhance their employability (Chen et al. 2017; Crossman & Clarke 2010; Fu et al. 2017) due to perceived better soft skills, secondary language acquisition, and networks (Hao et al. 2016). Historically, overseas educated Chinese students have had a better chance of succeeding in their careers when returning
to China, compared with those students who chose to stay in China for their higher education (Saxenian 2007; Wang & Bao 2015), although this is not guaranteed. For instance, Saxenian (2007) and Shuo (2018) suggest that Chinese employers’ growing demand for sophisticated intellectual capital means that overseas degrees are not necessarily an automatic ticket into prestigious positions in the labour market. Accordingly, it is imperative that Western universities cater to the learning and developmental needs of their international students. The next section draws attention to the specific challenges faced by the Chinese learner in Western universities as a necessary prelude to identifying appropriate strategies to cater the needs of these students.

### 3.2.1 Impediments faced by the Chinese learner

It was emphasised in Chapter 1 that international students, especially those from mainland China, have become important to the financial performance of Australian higher education institutions (Altbach et al. 2019). Hence, the recruitment, education, and retention of Chinese students are vital to Australian universities (Arkoudis et al. 2019; Deloitte 2015; Irvine & Ryan 2019).

However, numerous reports indicate that Chinese students struggle on many fronts while studying in Australia due to factors both on and off-campus (Arkoudis & Tran 2010; Hellstén 2002; Robertson et al. 2000; Sakurai et al. 2010). For instance, Huang (2016) reflects on her own experience and claims it was difficult for her not to view the Australian government as treating Chinese students as a “Cash Machine” (Hil 2020; Song & McCarthy 2020). High tuition fees, expensive living costs, limited work and immigration opportunities, and vulnerability to unfair employment conditions or exploitation in the job market are some of the issues that Huang (2016) considers impediments to Chinese students’ positive experiences and outcomes at Australian universities. In relation to on-campus student life, Chinese students face difficulties in the enculturation and social adaptation processes, as well as problems associated with inadequate language, communication and academic skills (Daymon & Norris 2015a; Deumert et al. 2005; Hellstén 2002; Robertson et al. 2000; Sawir 2005). It is important for universities to understand these impediments and respond accordingly, as failure to do so can deter future Chinese students
from choosing Australia as their educational destination.

One of the key issues affecting Chinese students’ experience and performance in foreign universities is the transition process (Dai 2020; Quan et al. 2016; Zhang 2016). Daymon and Norris (2015a) clearly state that the difference between Chinese and Australian educational approaches must be understood in order to enhance teaching practices that support Chinese students’ transition into Australian higher education. One of the fundamental differences, as outlined by Daymon and Norris (2015b) using the metaphorical concept of “duck filling”, is that Chinese students are accustomed to being told explicitly what to study for their exams, a common practice used by Chinese university lecturers. For example, one Chinese student reflects that:

*I was expecting the teacher would tell me what to do, which book to read, which paragraph you should remember to pass the exam, and that’s the failure. After I come to Australia, the teacher tells you: ‘you have to read this, this, this, and this – and maybe one of them will be in the exam, maybe not’, so sometimes I feel very confused (as cited in Daymon and Norris, 2015b p. 28).*

This concept has also impacted how some subjects are taught and examined in Australian universities. For example, in order to prevent too many Chinese students from failing the course, it has been suggested that the delivery and assessment of subject content have been focused more on technical knowledge and routine problem solving rather than critical thinking and communication (Chan & Ryan 2013). This is a concerning finding, as Australian universities may be seen as “dumbing down” (Chan & Ryan 2013, p. 173) degrees and academic standards to meet the needs of Chinese students (McGowan & Potter 2008; Saravanamuthu 2008). Furthermore, a lack of understanding of assessment requirements, combined with a need and desire to pass and do well, may increase the risk that students, including Chinese international students, resort to cheating services or rely on others in group assignments (Lancaster 2019; Macfarlane et al. 2014; Newton & Lang 2016). Contract cheating services target Chinese students by frequently promoting their services on the Chinese social media platform WeChat and notice boards around campuses (Parkes et al. 2018). As a result, Australian universities have been forced to increase
their efforts to investigate essay selling services, including those that target Chinese students (Belot 2016; Bolt 2015; Mcneilage & Visentin 2014). Thus, it is essential for universities to provide additional academic support to help Chinese students to develop an understanding of assessment practices and thereby minimise academic misconduct.

Additionally, it is believed that frequent loneliness and isolation felt by Chinese students may affect their university experience, although the causes of these conditions remain unclear. Huang (2016) suggests why Chinese students often feel isolated:

*Australian students are friendly, but it is hard to be accepted in their communities, even if we make great efforts. In America or China, students usually go to universities outside of the cities they live in. They have to be open-minded and make efforts to meet new friends. However, most Australian students go to local universities with friends whom they grew up with, so it is not necessary to make an extra effort to find new friends.*

However, Joske et al. (2016, p. 1) suggest that Chinese students themselves are also responsible for this isolation issue, as they tend “to socialise and work within their language group”. It is suggested that international students often lack time to invest in building new friendships due to study pressures, and this is compounded by their weak English language skills (Lee & Ranta 2014; Mamiseishvili 2012). More importantly, as Robertson et al. (2000) indicate, regardless of the cause of the loneliness, it often remains unaddressed and ignored by host country universities. Programs such as CABLE are able to fill this void to ensure a more connected community for international students.

There is also an observable trend that all Chinese students in the current generation are collectively losing the motivation to study to achieve academic excellence. Recent studies focusing on Chinese university students’ behaviour and attitudes towards study find that many of these students perceive their parents’ income, work status, and social relationships (*Guanxi*18) to be determinants of their future employment opportunities, rather than their own academic achievements (Bian 2019; Li 2003; Li 2007b; Qin & Li 2009; Wang et al. 2019; Wenger 2010; Zhang & Geng 2009). Evidence shows that although the income returns on education ratio grew

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18 For a detailed discussion on Chinese students’ perceptions of *Guanxi*, see Fan et al. (2012).
during the 1990s in China (Li 2007a), education is not necessarily more rewarded in the Chinese labour market (Kumar Narayan & Smyth 2006; Mok & Wu 2016; Tian & Ji 2017; Wu & Xie 2003). Therefore, it is likely that Chinese students consider university education as a mere procedural step in obtaining a degree and career, rather than a critical influence on their future employment opportunities. Gong and Huybers (2015) find that Chinese students regard university rankings as one of the key decision drivers for considering higher education destinations, however, the choice is in terms of the value of the ranking rather than the educational benefit itself. So, it is important that Australian universities better understand the motivations of Chinese students when choosing a university, and work to maintain positive recruitment outcomes.

Thus, it can be seen that Chinese students are a complicated cohort, and their educational, social and cultural backgrounds can fundamentally affect how they engage with their studies in a foreign university. The complexity of this group of students can be further explored though the “Chinese Learner” paradox and psychological foundations.

### 3.2.2 The “Chinese Learner” paradox

The literature on the Chinese learner is rich, with a variety of often competing for findings. A predominant concept in this literature is that of the Chinese Learner paradox. Biggs (1996b, p. 51) notes that:

> Students from the Confucian heritage (China, Hong Kong, Singapore, Japan and Korea) are stereotyped in the West for passively memorising. Well, that’s the way they’re taught, isn’t it, to memorise large amounts of material in preparation for gruelling examinations in harsh, overcrowded classrooms? But hey, don’t they also outshine Western students in international comparisons of academic achievement, in science and mathematics achievement especially? And don’t these students disproportionately gain first-class honours in our universities? You can’t do that by rote memorisation. So are we wrong about what constitutes ‘good teaching’ and about the evils of rote memorising? Or are Sino-Japanese brains genetically better than ours?

The original concept of the Chinese Learner Paradox refers to the situation wherein Confucian-heritage culture (CHC) students can show a high level of understanding and achieve academic excellence, while also being perceived as passive learners who rely on memorisation of content. Thus, it is suggested that the idea of Chinese students as docile surface-learners is a negative
Western misperception (Biggs 1996b, 1998). Rather, Chinese students use repetitive learning (which is different from rote learning\(^{19}\)) as a means to gain understanding and hence provide contextual responses in exams (Kember 2016). Biggs (1996a, p. 6) argues that memorising the content can “enhance future recall alongside understanding”.

Also, in the CHC context, parents often place high expectations on their children’s academic success. As a result, achieving good assessment results is pragmatically appreciated (Chan 2019). Identical characteristics such as order, stability, hierarchy, self-discipline and obedience play important roles in Confucian culture (O’Dwyer 2017). Chinese learners adopt a hierarchical relationship with the teacher in the classroom (Chan 2019) and develop different learning habits, for example, indirect writing style or expressing a point of view at the beginning of an essay (Connor 1996), and avoidance of conflict in a face-to-face classroom environment (Chiu 2009). Consequently, Chinese students face challenges in developing critical thinking skills, open exchanges of ideas with others (O’Dwyer 2017), and a low level of motivation in learning but to achieve academic success to meet their parents’ expectation.

Furthermore, Watkins and Biggs (1996) consider that the time spent by Chinese students in memorising academic content is how they demonstrate effort and improve their intelligence. Thus, unlike the common Western belief that intelligence is something “innate and relatively fixed”, the Chinese tend to believe that persistent effort can improve one’s intelligence (Biggs & Watkins 1996, p. 6). Moreover, it has been shown that their study motivation and effort are driven by their own ambitions, family and peer pressure or support, material reward, and interests (Biggs & Watkins 1996). These psychological factors can be considered influences on the engagement level of a Chinese student (Zepke 2015), and are considered in the Kahu (2013) framework of student engagement.

\(^{19}\) Biggs (1996) defines rote learning as learning without understanding while repetitive learning with the intention to understand the content meaning itself.
Other studies propose that Chinese students rely on rote-learning to obtain an accounting degree and as such are perceived as lacking critical skills (Chan & Rao 2010; Clark & Gieve 2006; Cooper 2004; McGowan & Potter 2008; Ryan 2010; Saravanamuthu 2008; Saravanamuthu & Tinker 2008). Chinese students are deemed to be passive learners given an educational background that tends to be teacher-centred, as opposed to a Western learning environment that is student-centred (Wong et al. 2015). A few studies acknowledge that this practice of rote learning remains a serious concern for higher education institutions, who may respond to this perception by reducing the difficulty of both the content taught in a subject and assessment criteria (McGowan & Potter 2008; Saravanamuthu 2008). Some also argue that the consumer-service provider model that higher education institutions embrace for their international expansion, together with flaws in the teaching evaluation scheme where students tend to provide higher ratings when the subject is relatively easy to pass, contribute to this ‘dumbing down’ (Chan & Ryan 2013; FitzPatrick et al. 2012; Hazelkorn 2011; Lai et al. 2012; McGowan & Potter 2008; Saravanamuthu 2008).

Another group of studies endeavours to identify the root cause of Chinese students’ deficiencies and how changes in teaching methods and curriculum development could be used to solve the problem (McGowan & Potter 2008; Saravanamuthu 2008; Saravanamuthu & Tinker 2008; Wong et al. 2015; Wu 2015). The Briggs’s Study Behaviour Questionnaire (SPQ) approach (see Biggs 1987; Saravanamuthu 2008) reveals the relationship between students’ personality and their academic performance, highlighting factors such as exam pragmatism, academic neuroticism, reliance on rote learning, and high levels of exam anxiety. It is suggested that when combined with the cultural shock of studying abroad, these personality traits lead Chinese students to adopt a “surface approach” to learning (Cooper 2004, p289). In the context of the current study, this surface approach does not sit well for a Chinese student who is preparing to enter into the

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20 For example, phrases used include “dumbing down” (Saravanamuthu 2008, p. 175), “marketing-induced lowering of standards” (McGowan & Potter 2008, p. 183), and “focus simply on technical knowledge” (Chan and Ryan 2013, p. 173)

21 Saravanamuthu (2008) provides a more detailed explanation (p. 143-144).
accounting workforce, which demands “a thinking person who is encouraged to engage with emerging knowledge in a reflective manner long after graduation” (Saravanamuthu 2008, p. 175). Some solutions have been suggested: the transformation of Chinese learners from surface learners to deep learners (Saravanamuthu 2008); modification of teacher’s enthusiasm and attitudes to improve the learning outcomes of Chinese students (Wong et al. 2015); consideration of the emotional, psychological and intellectual wellbeing of Chinese students when developing educational practice (Song 2014). While the practical implementation of these solutions has not been fully realised, there is pressure for Australian universities to accommodate the needs of Chinese students through support programs such as CABLE.

3.3 Peer mentoring as a solution to higher education issues

In order to address the above-mentioned student learning issues, Western universities have implemented a range of student-centred strategies, including the introduction of student-centred active learning (Crosling et al. 2009), improvement in student learning environments (Hornsby & Osman 2014; Tinto 2012), and the establishment of caring and supportive learning communities (O’Keeffe 2013; Tinto 2003). In this vein, peer mentoring programs have been used as an effective way to target these issues and achieve satisfactory outcomes (Grant-Vallone & Ensher 2000; Rodger & Tremblay 2003; Scott 2005; Siew et al. 2017). Peer mentoring programs are commonly available in Australian universities22, and are available to both domestic and international students.

Hellstén (2013) proposes that:

There seems to be a need for an international student facility that is established especially for incoming international students. This facility could house resources that would meet the call for ‘caring’ and ‘being available’ for new students. Links between the ‘staff working group’ and the ‘student facility’ can be established to mediate communication between delegates to be networked further into faculty and department levels. To this end,

22 Many Australian universities have introduced student mentoring program. For example, the University of Newcastle (https://www.newcastle.edu.au/current-students/uni-life/activities-and-experiences/mentors-and-ambassadors), University of Sydney (https://www.sydney.edu.au/students/peer-mentoring-programs.html), University of UNSW (https://student.unsw.edu.au/mentor), and UOW (https://www.uow.edu.au/student/uowx/get-involved/mentoring/).
we may draw on the experiences of so-called, ‘student mentoring’ programs established around many Australian universities. The effect of these programs is the availability of guidance provided by more experienced students who act as mentors to incoming new students. This is an effective and low-cost strategy implemented at the grassroots level which can be transferred effectively into the international studies environment.

In the above, Hellstén (2013) describes an ideal specific student mentoring program designed to cater to the needs of new international students. The program should embrace a peer mentoring approach and also act as an intermediate communication and feedback channel between international students and faculties. Typically, a peer mentoring program can assist new students in settling in faster by providing general support and advice on university services, course information, and network building outcomes (Grant-Vallone & Ensher 2000; Rodger & Tremblay 2003; Scott 2005; Siew et al. 2017).

Glaser et al. (2006) point out that peer mentoring programs can provide all new students with a sense of belonging and assist their development of communication and necessary organisational skills. Furthermore, according to Elliott et al. (2011), mentors, mentees, mentoring program coordinating staff, and the institution itself can all benefit from such programs, such as the personal development of mentor and mentees’, and improved student retention rates. Haggard et al. (2011) emphasise that successful mentoring programs require the establishment of a reciprocal social exchange relationship between the mentors and mentees. Thus, in the context of student mentoring programs, it is important that the senior, experienced student and the new student develop mutual trust and understanding to enhance the outcome of the mentoring relationship.

There are several peer support programs with a slightly different focus that draw on this trusting relationship for their success. Campbell et al. (2012) investigate a “buddy project” connecting newly arrived international students studied in 101 institutions from the United States with experienced students, and they find that host students often achieve personal satisfaction and inspiration, while international students receive a positive and helpful experience. The study also suggests that when the mentor and mentee are from different cultural backgrounds, intercultural
communication and personal development occurs. As a result, both mentors and mentees can develop capacity in communication and cultural understanding. However, “buddy” type student mentoring programs are not academically-focused; rather, they focus more on providing social support. In addition to programs offering social support, language and learning support programs are also widely available in Australian universities (Andrade 2006a; Arkoudis & Doughney 2016; Podorova et al. 2019; Ramburuth & McCormick 2001; Robertson et al. 2000). However, research has shown that international students have a very low participation rate in these programs (O’Loughlin & Arkoudis 2009) and so do not fully utilise the support these programs can offer during their transition. To enhance the transition into western learning and social life, it has been shown that these support programs are more successful when they use student role models (Arambewela & Hall 2007; Edwards & Ran 2006). It is suggested that when people observe positive, desired outcomes from modelled behaviours, they are more likely to imitate and adopt that behaviour themselves (Bandura 1977; Wenger 2010). Thus, providing high-quality support programs with an appropriate role model specific to the transition experience of international students can be an important step towards enhancing learning experiences, as well as addressing pastoral issues that international students experience in higher education institutions. However, Chinese student participation in peer mentoring programs is relatively lower compared to domestic and other international students due to the complex cultural and institutional contexts of these students (Bond & Scudamore 2010; Heidi & Chen 2015).

Thus, to increase the participation rate of international students, particularly Chinese students, in such peer mentoring programs and work towards alleviating some of their transitional problems, Western universities have a responsibility to tailor these programs to the specific needs of the students.

The next section considers peer support programs in the context of discipline-specific issues, that is, those relevant to international students engaged in accounting education. Such insight is essential in the shaping of peer mentoring programs to better assist the needs of the Chinese
3.3.1 Issues and solutions in accounting education

Recently, accounting graduates have been criticised for their lack of professional competencies, including communication, analytical skills, and critical thinking (Apostolou et al. 2019; Apostolou et al. 2015, 2017). It is reported that graduate accounting students possess underdeveloped computer-related skills, inadequate oral and written skills, poor problem-solving skills (Howieson et al. 2014). External bodies have also established learning standards for accounting graduates in Australia. For example, the Australian Business Deans’ Council (ABDC) published six learning standards, including judgement, knowledge, critical analysis and problem-solving skills, communication, teamwork, and self-management (Hancock et al. 2016). The learning standards also align with the professional accreditation guidelines released by CPA Australia and Chartered Accountants Australia and New Zealand (CPA Australian and Chartered Accountants Australia and New Zealand 2020). The learning standards and professional accreditation guidelines highlight the importance of graduates’ attributes for knowledge, technical and functional skills, interpersonal and communication skills, and teamwork and business management skills. In addition, Tan and Laswad (2018) find that accountants are no longer the backroom number crunchers but rather business professionals who require the ability to collaborate with colleagues, positive attitude and good communication skills.

Therefore, accounting education programs should seek to equip students with discipline-specific

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23 Details of six learning standards can be found in “Accounting Learning Stands”
It clearly defined the learning outcome for every standard at bachelor and master level. For example, Judgement refers to exercise judgement under supervision to provide possible solutions to routine accounting problems in straightforward contexts using where appropriate social, ethical, economic, regulatory, sustainability, governance and/or global perspectives.

24 Professional Accreditation Guidelines Section 3: Professional skills, competency areas and learning outcomes requires students to develop a range of skills including intellectual skills, technical and functional skills, personal skills, organisational and business management skills, interpersonal and communication skills.
knowledge, skills and abilities (Ballou et al. 2018; Rebele & Pierre 2019). Although traditional vocationally-focused education may provide short-term benefits to students for a smooth entry into the labour market, these kinds of benefits are largely offset by disadvantages in later stages of the career life-cycle (Hanushek et al. 2017). It is therefore important to equip students with essential competencies that benefit them in the long term.

In order to address the issue, integrated learning approaches need to be embraced to allow students to develop dynamic problem-solving skills, improve professional identity, and apply knowledge in the work environment (Stanley & Marsden 2013). Accounting curricula need to transcend traditional core areas (financial accounting, management accounting, and taxation) to integrate different core competencies in the curriculum (Apostolou et al. 2020; Apostolou et al. 2016). This approach gives both accounting academics and students an active role within a real-life education context to develop the necessary skills (Boyce & Greer 2013).

For Chinese students studying overseas, it is not a straightforward process to develop these professional competencies and soft skills, as they are often under pressure to meet academic requirements and master the technical skills of the discipline. Academics are concerned over the learning approaches of Chinese accounting students, especially in respect of the development of higher level skills such as critical thinking. Cui et al. (2015) find that accounting academics perceive that the learning strategies of Chinese students often preclude the engagement in a deeper learning experience. Accordingly, to assist Chinese students in the development of higher order skills (including cognitive development, creative and critical thinking, and interrelating knowledge), it is essential for universities to develop learning and teaching strategies that are specifically targeted at this. Peer mentoring programs have the potential to play a role in this, firstly by encouraging participation in the program and using a range of techniques that are relevant to Chinese students.
3.3.2 The B-PAL approach

Peer-assisted learning (PAL) is a type of peer mentoring program with a clear academic focus (Bruno et al. 2016; Huijser et al. 2008; Rohrbeck et al. 2003). In Australian universities, the PAL program is also known as the ‘Peer Assisted Study Session’ program (PASS), providing “a free academic assistance program that utilises peer-led group study to help students succeed” (PASS 2020). A typical PASS program is facilitated by senior students (commonly referred to as ‘Leaders’) who have excelled in the subject in previous semesters. A PAL program provides opportunities for participating student mentees to strengthen their knowledge, by being actively involved in group learning that focuses on the review of subject material and practical problem solving (Sole et al. 2012).

The recognised benefits for students of participating in PAL programs include establishing peer relationships (Ginty & Harding 2014), improved connections with other students (Longfellow et al. 2008; Van Der Meer & Scott 2009), improved self-confidence and learning behaviours (Ginsburg-Block et al. 2006), and notably, improvements in academic performance (Devine & Jolly 2011; Malm et al. 2012; McCarthy et al. 1997; McCarthy & Kuh 2006). PAL programs thereby benefit the institution and the participating student via a positive impact on student wellbeing, performance, and retention (Etter et al. 2000; Hensen & Shelley 2003). However, the fundamental philosophy of PAL focuses on targeting challenging disciplines rather than struggling students (Arendale 1994). Thus, PAL programs commonly implemented in Australian universities constitute open-access study support rather than focused support for specific cohorts such as international students. However, as discussed above, Chinese students face a number of learning challenges in Australian universities which can influence their learning and engagement at university. To better engage Chinese students in these PAL programs, a bilingual environment and peer support from students with the same ethnic background enable Chinese students to communicate easily without fear of embarrassment.

Bilingual education has been used extensively in primary and secondary education, and involves
teaching and learning in two languages, a native and a second language, with varying amounts of each language used dependent upon the circumstances (Baker 2011; Garcia 2011). According to Cohen (1975, p. 18), bilingual education is defined as “using two languages as media of instruction for a child or a group of children in part or all of the school curriculum”. Cirino et al. (2007) highlight the importance of bilingual students’ and teachers’ oral language proficiency as it determines the quality of teaching outcomes.

Cook (2001) argues that the student’s first language is an effective element in enhancing their learning of the second language in a way that helps convey meaning. Similarly, Turnbull and Arnett (2002) suggest that appropriate levels of first language usage can motivate students and scaffold learning. Thus, bilingual education has been considered a powerful pedagogical tool that incorporates the student’s first language and culture in school community participation and consequently increases the self-esteem of minority students (Cummins 2000; García 2011). In particular, Ghorbani (2011) finds that the use of a first language facilitates communicative features in group learning situations and enhances student/teacher interactions. Moreover, Littlewood and Yu (2011) suggest that with proper strategies, teachers can make extensive use of the first language for the benefit of establishing constructive social relationships and communicating complex meanings, resulting in improved understandings.

However, the above-perceived benefits do not align with the assumption in the modern approach, that is, using monolingual instruction strategies in multilingual classrooms (Cummins 2007). Multilingual students can benefit from multiple repertoires when learning languages and content at school such as “development of literacy skills in different languages”, “awareness about different discursive practises” and exchange of “linguistic resources in a social context and shape this context in communicative interaction” (Cenoz and Gorter 2013, p.251). Also, Supple, Best and Pearce (2016) suggest that there is a political, racial and colonisation element behind the decisions made around language use in the classroom. This thesis focuses on a learning support program (CABLE) that is out of a formal teaching scope. Thus, the language choice in conducting
the program receives the merits of using the first language in the classroom by creating a comfortable learning environment, overcoming perceived communication problems, allowing for greater depth and meaning in discussion and facilitating learning of concepts at a deeper level (Bahous et al., 2014; Supple, Best and Pearce 2016), rather than the complex process of the implied elements.

Therefore, it is proposed that the integration of bilingual peer-assisted learning (B-PAL) may be of assistance for Chinese students studying in a foreign university. Not only does such an approach facilitate the learning of subject content, but it also has the potential to enhance the development of higher-order skills essential to the practice of accounting.

3.4 Chapter summary

This chapter provides a review of the literature on issues faced by Chinese students in higher education, and although consensus on these issues has not been achieved, it is clear that this cohort of students requires additional support to integrate effectively into a foreign university and to succeed in their studies. The chapter has demonstrated that a B-PAL approach can provide a tailored solution for Chinese students, through attention to their particular social, psychological and academic needs. Chapter 4 introduces Kahu’s (2013) framework of student engagement as a means of exploring the efficacy of CABLE, a B-PAL program that has been designed especially for Chinese students in the higher education context.
Chapter 4: Theoretical Framework

4.1 Introduction

This thesis is specifically concerned with the efficacy of the CABLE program in respect of student engagement and academic performance. As discussed earlier, the CABLE model is unique in its attention to the academic, social and linguistic needs of its student participants. In order to understand how the program succeeds, Kahu’s (2013) model of student engagement is enlisted as a framework of analysis. This chapter begins with a brief consideration of student engagement and then moves onto various conceptualisations of it in Section 4.3. Section 4.4 describes Kahu’s (2013) framework and its application in previous studies, while Section 4.5 assesses the suitability of this theoretical framework for the current research.

4.2 Student engagement overview

The term student engagement has been extensively canvassed in the education literature (for example, see Carini et al. 2006; Kahu 2013; Kahu & Nelson 2018; Quaye & Harper 2014; Trowler 2010; Zhao and Kuh 2004). In general, the term can be defined from the perspectives of the students or the institutions. When used from the student perspective, student engagement refers to the level of interest and passion a student shows in the teaching and learning context. Engaged students are often found to be motivated, inquisitive, committed, and inspired. Consequently, their learning outcomes significantly improve (Carini et al. 2006; Fredericks et al. 2016; Kahu & Nelson 2018). In contrast, disengaged students appear to be dispassionate, bored, and often procrastinate. As a result, their learning is often ineffective and inefficient (Chipchase et al. 2017; Dean & Jolly 2012; Trout 1997). Furthermore, disengaged students are more likely to drop out, causing severe attrition and other education management issues (Schlosser 1992; Vekkaila et al. 2013). Hence, improving student engagement is an essential instructional objective expressed by educators (Coates 2005; Gray & DiLoreto 2016; Koljatic & Kuh 2001; Krause & Coates 2008; Kuh 2003; Solomonides & Reid 2009).
From the perspective of educational institutions, student engagement refers to how the institutions design programs and create learning opportunities to fully engage their students (Gilboy et al. 2015; Trowler 2010). Coates (2007) states that different institutional student engagement styles can be categorised by the level of academic focus and social focus, as shown in Figure 4-1 below.

![Figure 4-1: Student engagement styles (Coates, 2007)](image)

An *intense* form of student engagement will profoundly engage students both academically and socially, in that students are actively involved in all aspects of their university study and have the potential to gain an enriched university experience. This form of student engagement is the most ideal type from the institutions’ perspective, as it leads to an enhanced learning experience for the students as well as social and cognitive development (Carini et al. 2006; Heng 2014; Kuh et al. 2008; Marks 2000; Skinner & Belmont 1993).

In comparison, the *independent* form of student engagement focuses more on academic outcomes. In this form, institutions offer more formal learning support but create fewer collaboration opportunities for students within or beyond class (Coates 2007). Technology-oriented institutions are often found to use this form of student engagement, as they focus less on the interpersonal environment and more on information technology as the main vehicle for interactions (Pike and
Kuh 2005). The collaborative form of student engagement emphasises the social aspects of university life. Students gain opportunities to participate in various beyond-class activities and interact more often with peer students (Coates, 2007). Lastly, the passive form is when students rarely participate in either classroom or beyond-class activities. Compared to the intense form, the other three forms are less optimal, as academic success and social satisfaction are both important for university students.

As outlined in Chapter 2, the CABLE program engages students both academically through workshops and socially through social and sporting events, thus falling into the category of an intense model of engagement. Thus, it is suggested that a program such as CABLE has the potential to contribute to a university’s strategic objective around student engagement, as well as provide students with an enriched educational experience. Kahu’s (2013) student engagement framework is particularly focused on the concept of student engagement, its antecedents and proximal consequences, and is used in this thesis to examine the effectiveness of the CABLE program. The application of Kahu’s framework is discussed in Section 4.4.

4.3 Conceptualisation of student engagement

Student engagement is considered to be one of the major contributors to desirable collegiate outcomes (Ahlfeldt et al. 2005; Kuh 2009; Zhao & Kuh 2004). The concept emerged more than seventy years ago and was first used to describe the positive effects of time spent on task learning. The implication was that student learning outcomes could be improved with better management skills (Merwin 1969, cited in Kuh 2009). Later, Mosher and MacGowan (1985) identified characteristics that impacted on student engagement, such as students’ attitude, psychological characteristics, family characteristics, school characteristics, and teacher characteristics. At

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25Kahu and Nelson (2018) refine Kahu’s (2013) student engagement framework by incorporating the educational interface. This new framework offers a cogent explanation for the dynamic, complex, and individual nature of students’ psychosocial learning experiences, with a focus on non-traditional students, particularly those with lower social-economic backgrounds (LSES). The new framework does not include significant changes to the Kahu (2013) version, and as the students in the current study are Chinese students (who are not typically classified as LSES students), this thesis retains Kahu’s (2013) framework to analyse data.
around the same time, Astin's (1985) theory of student involvement reinforced the notion that students could learn better by being involved. Lamborn et al. (1992, p. 3) expanded the concept of student engagement by arguing that it was “a psychological investment in learning” that extended beyond attending class and completing the work, and included showing excitement, commitment, or pride in mastery of the curriculum. The importance of psychological factors in student engagement was also emphasised by other researchers (Furrer & Skinner 2003; Kuh 2009; Miller et al. 1996; Singh et al. 2002). More recently, student engagement was defined as “the interaction between the time, effort and other relevant resources invested by both students and their institution intended to optimise the student experience and enhance the learning outcomes and development of students and the performance, and reputation of the institution” (Trowler 2010, p. 3). Thus, the importance of the institutional setting and the investment of resources regarding student engagement is acknowledged. As can be seen, the student engagement concept has expanded from that related to individual students’ behaviours and psychosocial factors, to the impact of teacher and institutional practices and policies.

Prior research into student engagement includes that related to high school students (Bouta et al. 2012; Dotterer & Lowe 2011; Fredricks et al. 2004; Fredricks et al. 2016; Furrer & Skinner 2003; Lamborn et al. 1992; Marks 2000; Mosher & MacGowan 1985; Reyes et al. 2012; Skinner & Belmont 1993) and university/college students (Askham 2008; Carini et al. 2006; Gasiewski et al. 2012; Kasworm 2005; Neumann & Hood 2009; Walker et al. 2006; Zhao & Kuh 2004). However, there are fewer studies on comparison of student engagement level between international and domestic students in Western universities. Zhao et al. (2005) compare the student engagement level between domestic and international students in American institutions, finding that international students are often disengaged after their first year of study. They suggest that “any effort to increase the numbers of international students on campus must also be accompanied by programs and services that induce these students and their American counterparts to engage with one another as well as in other educationally purposeful activities” (Zhao et al. 2005, p. 225). Korobova and Starobin (2015) conducted a comparative study of student
engagement and satisfaction and academic success among international and American students. They suggested that a supportive campus environment contributes to high student-faculty interactions and consequently leads to student academic success. Also, Glass and Westmont (2014) indicate that creating belongingness on cross-cultural interaction between domestic and international students contributes to their academic success. However, their study is rather limited in that it only includes “parental education level” as the precollege variable when assessing student engagement, failing to take into consideration other important socio-cultural factors (Glass & Westmont 2014).

The focus of this thesis is on Chinese students who have been enrolled in an Australian university. As indicated in the foregoing chapter, the characteristics of Chinese students, particularly their socio-cultural backgrounds, are important considerations in their engagement in a foreign university, and ultimately in their academic performance. It is suggested that the CABLE program at UOW is a platform to enhance student engagement, and this thesis adopts Kahu’s (2013) student engagement conceptual framework (hereinafter Kahu’s framework) to examine the efficacy of the program.

### 4.4 Kahu’s framework

Kahu’s framework deconstructs the complex nature of student engagement by depicting different factors that influence engagement and embedding these phenomena and processes within the wider socio-cultural context. The conceptual framework has five elements, as shown in Figure 4-2: structural and psychosocial influences, student engagement, and proximal and distal consequences. The centre of the framework is ‘student engagement’ which contains three components, namely affect, cognition, and behaviour. The direct influences on ‘student engagement’ are ‘psychosocial influences’ which consider influences from the university and the student. ‘Structural influences’ concern the indirect influences on student engagement through ‘psychosocial influences’, and such influences are divided into university level (including the
impact of curriculum and assessment) and student level (considering students’ geographic and demographic background). ‘Proximal consequences’ describe the outcomes of ‘student engagement’ and particularly refer to learning achievement, along with social consequences of satisfaction and wellbeing. ‘Distal consequences’ of ‘student engagement’ are more clearly related to retention, work success, lifelong learning, and the social benefits of citizenship and personal growth (Kahu 2013). Factors relevant to the current study are explored further in Section 5.4.3. It should be noted that the current study is concerned with those factors shown within the green dotted line, and the factors relevant to the thesis are student psychosocial influences, student engagement and proximal consequences.

Figure 4-2: Kahu’s (2013) student engagement conceptual framework

Importantly, Kahu’s framework outlines the means for understanding and improving student engagement, and it highlights the roles and responsibilities of the student, the teacher and the institution, and the government in achieving this objective. While Kahu (2013) identifies three dimensions of student engagement and many influences and consequences, previous research tends to focus on just a limited number of these. For example, some studies focus on the behavioural perspective, emphasising student behaviour and the positive impact of institutional
teaching practices on student engagement (Kuh 2003; Kuh 2009; Laird et al. 2008). The National Survey of Student Engagement (NSSE) (Kuh 2009) and the Australia University Survey of Student Engagement (AUSSE)\textsuperscript{26} (Coates 2005) are often used to capture and measure student engagement and student satisfaction. While providing valuable insight into student engagement, these surveys only provide a partial explanation of the complex and multidimensional concept of student engagement, and its relationship with teaching practice and student behaviour (Kahu 2013). Other studies examine student engagement in relation to an individual’s psychosocial processes, highlighting the positive effects of a student’s sense of belonging (Gillen-O’Neel 2019; Rosenthal et al. 2013). It is suggested that this sense of belonging leads to favourable outcomes including higher participation in class (Freeman et al. 2007), more effective use of deep learning strategies (Fredricks et al. 2004), higher motivation to accomplish learning tasks, (Askham 2008), and wider participation in extracurricular activities (Fredricks et al. 2004; Skinner & Belmont 1993; Zepke & Leach 2010). Ultimately, it is proposed that favourable outcomes, such as improved academic performance are achieved.

Self-efficacy and identity are key influential factors to student engagement. Self-efficacy is defined as a person’s ability to integrate courses of action that complement cognitive, social, and behavioural skills to serve various purposes (Bandura 1982; Bandura, Freeman & Lightsey 1999). Bandura’s work on Social Cognitive Theory and Social Learning Theory suggests that individuals with a higher level of self-efficacy can better deal with challenging tasks due to higher confidence and motivation (Bandura, 1977; 1982; 1986; 1993). Within Social Learning Theory, self-efficacy is theorised in social group learning contexts, indicating that the level of self-efficacy is influential to an individual’s emotional and practical capability to perceive and accept others within a social group (Bandura, 1977; Frayne & Latham, 1987; Osman-Gani & Rockstuhl, 2009). By taking both theoretical frameworks into consideration, it can be seen that an individual’s self-efficacy can be shaped by experiencing the external environment and by modelling others in a social learning

\textsuperscript{26}The NSSE survey was widely used by researchers in the US context. The AUSSE survey adopted the NSSE survey format and tailored it for the Australian context.
The notion of self-efficacy has been studied in the fields of psychology, organisational behaviour and education for decades (see Bandura, 1977; 1982; 1994; 2002; 2006; Zimmerman, 2000; Benight & Bandura, 2004; Caprara et al., 2011; Tierney & Farmer, 2011; Komarraju and Nadler, 2013). For example, Komarraju and Nadler (2013) attempt to identify the relationship between self-efficacy and academic achievement. The research administers a survey questionnaire to 407 undergraduate students, with 107 items to measure student motivational orientation, cognitive and metacognitive strategies, and resource management strategies. The findings indicate that students with high level of self-efficacy are capable of overcoming learning obstacles and therefore are able to perform well academically. Accordingly, self-efficacy in the context of academic learning has an impact on students’ learning performance.

The literature suggests that the Chinese learner’s development of self-efficacy in Western universities is influenced by various factors. For example, Zuo and Wang (2016) investigate the self-efficacy development in Chinese doctoral students in a university in the United States. They found that the influence of peers and advisors is a significant factor on Chinese students’ self-efficacy development. Also, Lin and Betz (2009) suggest that the Chinese students’ self-efficacy is significantly and positively related to language proficiency in the English setting, where a high level of language proficiency reduces acculturation stress of the students. In addition, culture shock and homesickness are the reasons for the procrastination behaviour among Chinese students, which lead to a low level of self-efficacy development (Lowinger et.al 2014). Further, Fong and Yuen (2016) found that self-efficacy and connectedness to family and school contribute to Chinese learners’ demand for academic excellence. The connectedness is “fundamental to the growth of students’ confidence and enhances their will to perfect their performance” (Fong and Yuen 2016, p.12). Therefore, this thesis includes other factors when examining Chinese students’

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27 In addition to these two scenarios, Bandura (1997) have also stated another two sources that can shape self-efficacy, which are social persuasions and physiological and psychological states.
self-efficacy in relation to their academic performance.

On the other hand, identity is an important variable in Kahu’s framework. In Phinney (1992), a student’s identity is constantly changing, due to factors such as a change in understanding of social group membership, and the value and emotional significance attached to that membership. Also, student identity is shaped by the role of the student, the family and the school (Okagaki 2001). Research suggests that ethnic minority students can maintain a strong racial and ethnic identity (Dotterer et al. 2009, Okagaki et al. 2009), develop a bicultural identity (Bingham et al. 2001, Okagaki, Izarraraz, & Bojczyk, 2003) and be engaged in school (Okagaki 2001). In the higher education sector, universities establish a partnership culture to engage students to accommodate the changing nature of students, staff and organisational identities (Nygaard et al. 2013). Particularly for international students who experience university culture as “foreign, alienating or hostile” (Trowler and Trowler, 2010, p.12), developing an identity as a student to successfully transit to the university environment is important for them. If a student’s perception of their learning identity is both positive and pronounced, then they are more likely to engage with that learning context, and act in ways that align with expectations consistent with learning norms (Smith & Terry 2003).

As mentioned, a large number of Chinese students are studying in Western Universities. Ching et al. (2017) suggest that Chinese students experience cultural identity crisis in the United States as they identify themselves as foreigners in the country. Studies highlight that language proficiency is the greatest difficulty for Chinese students studying in English-speaking countries than other international students (Hsieh 2007, Kim 2012). In addition, Hsieh (2007) finds that that Chinese students experience “more discouragement and anxiety caused by value conflicts and more difficulties in adjusting to American culture than students from other regions” (p.889). Valdez (2015, p.198) suggests that Chinese international students struggled with the internal identity conflict of being Chinese and being “Americanised” when studying in American universities. The research suggests that the university should create awareness of cultural differences and provide
resources to the classroom to promote collaboration between Chinese international students and American students. Thus, the identity of Chinese students in this thesis is examined in combined with other factors.

Although student engagement, along with its antecedents and consequences, has been previously examined, a key limitation in the literature is the lack of clear definition and differentiation between the above-mentioned variables. As these variables overlap, it is hard to analyse them individually (Kahu 2013) and inconsistencies in the measurement of these variables can surface. This finding is consistent with Lamborn et al. (1992), who note that psychological investment and effort are not readily observable. Moreover, the internal psychosocial processes of a student evolve over time and vary in intensity, making it difficult to reliably quantify (Kahu 2013). However, it is recognised that there is “a logical relationship between student engagement to achievement and to optimal human development” as the existing studies reveal positive relationships (Marks 2000, p. 155). Hence, this thesis holds that the dynamic nature of engagement should be highlighted, and argues for the inclusion of the socio-cultural perspective in the examination of the CABLE program. It is believed that this approach will lead to a rich understanding of the individual experiences of the students and their respective engagement in the program (Fredricks et al. 2004; Kahu 2013).

The socio-cultural perspective highlights the impact of the broader social context on student experience, and while not all aspects of this broader social context are examined in this thesis, it allows for a consideration of a student’s relationship with their parents, teachers and peers, social aspects of learning structures, and the value and belief systems that define their school cultures and communities (Christenson et al. 2012; Kahu 2013; Zepke & Leach 2010). In addition, the socio-cultural perspective offers insights into why students, especially non-traditional students, become engaged or alienated in the university context (Kahu 2013). These non-traditional students often face challenges such as a culture shock (Christie et al. 2008) and learning shock (Griffiths et al. 2005), with both creating barriers to engagement for them. Thomas (2002) takes
a slightly different approach by examining the student experience in a specific socio-political context, suggesting that institutions should deploy inclusive teaching and learning strategies, create collaborative or socially-orientated teaching and learning environments, and provide a diversity of social spaces to promote a social relationship between students through academic activities. Thomas (2002) argues that these strategies are necessary to address the issues of poor retention of non-traditional students. Furthermore, as indicated earlier, international students studying in an English-speaking country often lack proficiency in the English language, which is compounded by a lack of local cultural knowledge. Some international students compensate for this through effort, study habits, and self-help strategies (Andrade 2006a), and as discussed in section 3.2.1, other less desirable approaches. Thus, the examination of the CABLE program will incorporate the socio-cultural aspects to gain a comprehensive understanding of these aspects influencing the engagement of Chinese students.

In summary, it is apparent that the engagement of international students in foreign universities is influenced by a broad range of factors, and that the extent of engagement then influences the personal or proximal consequences for those students. Such engagement is best understood holistically through a socio-cultural perspective (Lawson & Lawson 2013), and as argued by Zepke (2015), such an understanding should be contextual, critical, and engaging, rather than following a developed list of generic, specified, and labelled ideas or practices. In this thesis, this understanding is undertaken via the Kahu (2013) framework.

4.5 Suitability of Kahu’s (2013) framework

Kahu’s framework has been used in several studies examining student engagement, with each offering different perspectives. For example, Gunuc and Kuzu (2015) develop a scaling instrument to collect student on-campus and class behaviours and examine its impact on student engagement from a holistic perspective. Kahu et al. (2015) examine the relationship between student engagement and student emotions to determine mature-age student success in higher
education. Jamaludin and Osman (2014) also use Kahu’s framework to facilitate a “flipped classroom” approach to enhance student engagement, and find that emotional engagement is an important factor in this endeavour. A variety of research methods, both qualitative and quantitative, are used in these studies to explore the various relationships.

Due to its comprehensiveness, Kahu’s framework is ideal for investigating the effectiveness of the CABLE program in improving Chinese students’ engagement and their performance. However, as noted by Kahu, it is not essential that all aspects of the framework be examined in any one study:

*No single research project can possibly examine all facets of this complex construct. But, by starting from a place that acknowledges the multi-level phenomena and processes, and the complex relations between them, the focus can be on developing a greater understanding of one element without denying the existence of the others. The clearer our understanding of student engagement and the influences on it, the better positioned we will be to meet the needs of students, to enhance the student experience, and to improve the educational outcomes (Kahu, 2013, p.769).*

In the current study, the focus is on the student psychosocial influences on engagement and the proximal consequences of this engagement. Other aspects of the Kahu framework, such as structural influences and university-level psychosocial influences, are outside the scope of the study, while distal consequences are not considered due to unavailability of data. The aspects of the framework addressed in the study are bordered by green in Figure 4.2.

Kahu’s framework is suitable for an examination of the CABLE program in several ways. Firstly, as discussed in Chapter 2, one of CABLE’s pedagogical approaches involves the use of student role-models in the workshops. As stated by Beatson et al. (2018), students develop self-efficacy through vicarious learning and imitating the positive behaviour of role-models. In Kahu’s framework, self-efficacy is a key psychosocial influence on student engagement. Accordingly, this thesis specifically sets out to determine whether or not participation in the CABLE program influences students’ self-efficacy, and consequently, their engagement.
Secondly, it has been established that co-cultural peer relationships between senior and peer students engenders a sense of belonging among Chinese students; Xu (2016) emphasises that Chinese students often learn by becoming, which is the process of working and learning through the course of life. This is a feature of the CABLE approach, whereby a learning community is created in which Chinese students’ identities are catered for. Becoming an international student is a unique course in life, and Chinese students learn the course and adapt to the new environment and culture. When observing CABLE leaders, some newly enrolled Chinese students learn to become successful students, acculturated in the Australian environment. The CABLE leaders established role model, for example, developing learning skills, engaging with people from other cultural background, to these Chinese students who they can interact with and learn to become them. During this process, identity is another key psychosocial influence in the Kahu framework, and thus this thesis explores the effect of this influence on student engagement.

Thirdly, as highlighted in Chapter 2, the academic excellence of many of the CABLE leaders has been recognised by numerous prestigious awards. Many of these students were CABLE program participants before becoming leaders. As part of the current study, an investigation into the achievements of these student leaders (as perceived by them) is undertaken to determine whether or not these were influenced by their participation in the CABLE program.

Apart from the specific variables of identity and self-efficacy as mentioned above, Kahu’s framework allows for an evaluation of the impact of other variables such as motivation and skills on student engagement. Engagement is assessed in terms of affect (enthusiasm, interest, belonging and cognition), cognition (deep learning) and behaviour (time and effort, interaction and participation). Finally, Kahu’s framework provides scope for an assessment of student engagement on both academic and social outcomes. All up, it provides a comprehensive mechanism for exploring the learning experiences and outcomes of Chinese students in a foreign higher education context, expressly shaped by the research questions presented in Chapter 1.
The nature of this research endeavour necessarily demands the use of both quantitative and qualitative methods to examine a broad range of data. Quantitative analysis of student surveys, participation records and academic results is used to identify relationships between variables, whereas qualitative analysis of student interviews fleshes out the research for a richer understanding of the Chinese student experience. The next chapter outlines the research methodology, with more specific detail on the utilisation of Kahu’s framework.

4.6 Limitation of Kahu’s (2013) framework

Kahu’s (2013) framework provides a holistic view of student engagement, including multi-dimensions. The framework does not include every possible factor and may have some overlap between the structural and psycho-social influences on one side and the proximal and distal consequences on the other side (Kahu 2013). Kahu (2013) also acknowledged that “no single research project can possibly examine all facets of this complex construct” (p.770). Thus, this thesis adopted a partial framework in examining the CABLE program’s effectiveness from the student’s perspective. Structural influences and distal consequences are not covered in as well as psycho-social influences from the university’s perspective.
Chapter 5: Research Methodology

5.1 Introduction
Chapter 4 outlined the appropriateness of Kahu’s framework to evaluate the effectiveness of the B-PAL approach in improving student engagement levels and academic performance. This chapter provides a detailed explanation of the methodological approach with a focus on a mixed methods research design. By adopting a mixed methods approach, this thesis uses both quantitative and qualitative research techniques to address the research questions. All data collection was approved by the UOW Human Research Ethics Committee (2016/915) – refer to Appendix 6.

This chapter proceeds as follows. Section 5.2 provides a discussion of the advantages of using a mixed methods approach, and Section 5.3 details the application of the mixed methods approach in this thesis. Section 5.4 describes the data, including university student records, CABLE workshop attendance records, student surveys, and interview transcripts. This section further illustrates how data is collected and analysed. Finally, Section 5.5 concludes the chapter.

5.2 Mixed methods approach
In recent years the mixed methods approach has become popular with researchers as it integrates the strengths of both qualitative and quantitative research (Creswell 2013; Creswell et al. 2003; Johnson & Onwuegbuzie 2004; Johnson et al. 2007). Essentially, it involves the collection and analysis of qualitative and quantitative data in a single or multiphase process (Hanson et al. 2005).

The mixed methods approach overcomes one of the issues typically encountered by quantitative researchers, namely the evaluation of data with quantitative significance only, by allowing researchers to explore their data in a more meaningful way (Hara 1995). As outlined by Milne and Oberle, it:
Qualitative research appears alongside quantitative research in traditional research fields, providing a “methodology, a way of thinking about and studying social reality” (Strauss & Corbin 1990, p. 4). Its ability to describe complex phenomena and to provide rich detail and in-depth analysis of phenomena situated and embedded in a social context overcomes some of the limitations of quantitative methods (Creswell 2013; Merriam 1988, 1998; Neuman 2005). For example, the qualitative approach has the potential to manage data which is collected from words and stories from a small number of participants, and allows the researcher to understand a phenomenon or individual by asking on-going or dynamic questions (Bryman 2015; Neuman 2005; Patton 1990). Thus, the application of qualitative research techniques provides scope for an interpretive explanation of the phenomenon being examined (Atieno, 2009).

While acknowledging the benefits of qualitative research, the value of quantitative research cannot be overlooked. Quantitative research is often used to test theories to ensure a high degree of reliability and validity (Creswell & Clark 2007; Hanson et al. 2005; Venkatesh et al. 2013). The nature of this type of research allows the researcher to study a phenomenon without influencing it or being influenced by it (Sale et al. 2002). Techniques such as randomisation and highly structured protocol are used to measure and test a causal relationship between variables within a value-free framework (Denzin & Lincoln 2008). Also, a quantitative approach can “bring breadth to a study by helping researchers gather data about different aspects of a phenomenon from many participants” (Venkatesh et al. 2013, p. 25). Thus, the application of quantitative research techniques can provide insights into a breadth of issues and reactions from a vast group of stakeholders (Venkatesh et al. 2013).

Furthermore, although quantitative and qualitative research differ philosophically and
methodologically, they can complement each other (Creswell et al. 2003). Quantitative research typically aims to be more “confirmatory and deductive” (Atieno, 2009, p.14), while qualitative research tends to be exploratory in nature (Atieno, 2009). Nonetheless, much quantitative research can be classified as exploratory in current research projects, while qualitative research may address very specific hypothetical propositions (Atieno, 2009). In recent years, it has become more common for researchers to integrate both quantitative and qualitative research approaches to conduct their studies (Bryman 2006), and the process of employing two different approaches and making observations from multiple positions is often referred to as triangulation (Creswell et al. 2003). Borrowing the concept from navigational science, triangulation in social research indicates that quantitative and qualitative methods can be used collaboratively to provide a means of looking at something from several angles, and hence validate results from multiple sources and perspectives (Bryman 2006). It also helps the researcher to better cope with the research limitations that arise by applying a single method, as well as providing heightened credibility to research outcomes when a congruent result can be observed from both quantitative and qualitative approaches (Bryman 2006; Creswell 2013).

To sum up, the mixed methods research approach has been used to study different phenomena (Borrego et al. 2009; Creswell 2013; Odom et al. 2006) and has proven to be a powerful strategy for researchers to better capture the richness of human cognition and behaviour through multiangled sources (Altrichter 2008; Creswell 2013). It combines the advantages of both qualitative and quantitative methods, and has been used extensively in educational research (Borrego et al. 2009; Odom et al. 2006). Accordingly, it is adopted in this thesis as a means of better understanding the experiences and perceptions of Chinese students participating in the CABLE program, and to identify relationships between the variables identified in the Kahu framework.

5.3 Application of the mixed methods approach

Kahu (2013, p.769) explicitly states that “no single research project can possibly examine all facets of this complex construct” (i.e. the conceptual framework of student engagement). In line
with this position, the mixed methods approach is used in this thesis to examine the effectiveness of the CABLE program and its impact on engagement and the academic performance of its participants. It enables the researcher to investigate the relationship between different components of Kahu’s (2013) model without being limited to a single method or approach (Creswell et al. 2003; Johnson & Onwuegbuzie 2004). A quantitative approach is used to evaluate the effectiveness of participating in CABLE workshops as measured through student engagement levels and academic performance. This examination draws on student academic records, records of CABLE workshop attendance, and the student survey. A qualitative approach is used to examine student’s experiences and perceptions of the CABLE program, and to understand how participation in the CABLE workshops improves their academic performance. Data is collected from open-ended survey questions and student interviews. The research is directed through the research questions as shown in Section 5.1.

The first research question investigates to what extent participation in the CABLE workshops improves student engagement and, ultimately, their academic performance (in terms of subject results). The second research question identifies factors that influence student engagement levels and their academic performance. In order to address the first two questions, data on academic performance was collected through the Information Management Unit at UOW. A t-test was used to identify whether a relationship exists between participation in the CABLE workshops, engagement level, and academic performance. Where a relationship was shown to exist, the next step involved exploring factors causing the relationship. This was done via a student survey, with questions designed around previously identified factors - that is, those crucial to the learning experience of Chinese students (as discussed in Chapter 3, including the Chinese learner’s educational approach and learning challenges) and those defined in Kahu’s framework. A path model was used to analyse the correlation between these variables. The following propositions were developed to ensure that the path model was applicable:
Proposition 1: Workshop attendance moderates the relationship between psychosocial influences and student engagement.

Proposition 2: Workshop attendance has a positive impact on participants’ academic performance.

Proposition 3: Psychosocial influences impact student engagement and their perceived academic performance.

To further investigate student experiences and perceptions of the CABLE program, along with their reasons for participating in the CABLE workshops, interviews with participants were conducted. Data obtained via the interview process addressed the third research question, which concerned students’ experiences and their perceptions of the CABLE program, and its impact on their engagement and academic performance. If a positive impact was identified in their responses, the interviewer tried to elicit the educational benefits or values that students believed they had gained by participating in the workshops. The interview questions were open-ended and student responses were analysed using thematic content analysis. Both quantitative and qualitative results were discussed and triangulated to provide a comprehensive response to the research questions. Table 5-1 provides a summary of the research questions and the type of analysis.

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Analysis Procedures and Phases</th>
</tr>
</thead>
<tbody>
<tr>
<td>RQ1:</td>
<td>Quantitative: Statistical analysis of student workshop participation records and engagement level with their academic performance (results).</td>
</tr>
<tr>
<td>To what extent does participation in CABLE workshops improve on student engagement and academic performance?</td>
<td>Identification of factors through statistical analysis</td>
</tr>
<tr>
<td>RQ2:</td>
<td>Qualitative: Thematic analysis to identify student perception towards the B-PAL program.</td>
</tr>
<tr>
<td>Which student engagement factors have the most influence on engagement and perceived academic performance of the CABLE workshop participants?</td>
<td></td>
</tr>
<tr>
<td>RQ3:</td>
<td></td>
</tr>
<tr>
<td>What motivates the Chinese students to participate in the CABLE program, and what is their experience and perception of the workshops?</td>
<td></td>
</tr>
</tbody>
</table>

Table 5-1: Research questions
5.4  Research data

5.4.1  University academic records

The sample comprises international students from China, enrolled in a Bachelor of Commerce degree (Accountancy major), in the Faculty of Business at UOW during 2011-2016.

Typically, the Bachelor of Commerce degree is a three-year, full-time course comprising 24 subjects. To qualify for the degree, students are required to complete eight core subjects, common to all commerce disciplines (100 level subjects), eight accounting-related major subjects (200 and 300 level subjects), one capstone subject (300 level), and the others as electives. If students want to be eligible for professional accounting accreditation, they need to study three additional law subjects. Table 5-2 lists all the subjects (excluding the elective subjects) of the Bachelor of Commerce (Accountancy major).
Table 5-2: Subjects for Bachelor of Commerce (Accountancy major)

Students usually study core subjects in their first year, while subjects for the major are typically studied in their second and third years. Due to pre-requisite requirements and subject offerings, accounting students often have very similar study patterns over the term of their degree program. Successful completion of these sequential subjects is fundamental for accounting students as failures can have unfavourable consequences, such as a longer study period and additional costs. Table 5-3 illustrates a common study pattern, which is usually provided by the faculty academic advisers to newly enrolled students. It is important to note that this study pattern may change over time due to the requirements of the accounting professional bodies, such as CPA Australia or...

28 For example, ACCY111 is the pre-requisite of ACCY112; ACCY112 is the pre-requisite of ACCY200 and ACCY211; ACCY200 is the pre-requisite of ACCY201; and ACCY201 is the re-requisite of ACCY342 and ACCY305. Students need to complete the pre-requisite subject in order to study the advanced subjects. The study pattern of non-core/major subjects (non-disciplinary subjects) such as COMM101, MARK101, and ECON101 is flexible as these subjects can be studied in any of the academic years.
Chartered Accountants Australia and New Zealand (CAANZ).

<table>
<thead>
<tr>
<th>Year</th>
<th>Autumn</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td>ACCY111</td>
<td>ACCY112</td>
</tr>
<tr>
<td></td>
<td>ECON101</td>
<td>COMM101</td>
</tr>
<tr>
<td></td>
<td>FIN 111</td>
<td>COMM121</td>
</tr>
<tr>
<td></td>
<td>MGMT110</td>
<td>MARK101</td>
</tr>
<tr>
<td>Second Year</td>
<td>ACCY200</td>
<td>ACCY201</td>
</tr>
<tr>
<td></td>
<td>FIN 222</td>
<td>ACCY231</td>
</tr>
<tr>
<td></td>
<td>ACCY211</td>
<td>ACCY312</td>
</tr>
<tr>
<td></td>
<td>LAW 101</td>
<td>Elective</td>
</tr>
<tr>
<td>Third Year</td>
<td>ACCY342</td>
<td>LAW 315</td>
</tr>
<tr>
<td></td>
<td>ACCY305</td>
<td>ECON111</td>
</tr>
<tr>
<td></td>
<td>LAW 302</td>
<td>COMM331</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td>Elective</td>
</tr>
</tbody>
</table>

*Table 5-3: Bachelor of Commerce (Accountancy major) students study pattern*

The first set of data from the University Academic Record system was collected for all Chinese students enrolled from 2011 to 2016 in the following subjects: ACCY111, ACCY112, ACCY200, ACCY201, ACCY312, ACCY305, ACCY342, FIN111, and FIN222. There are two reasons why these subjects have been included and others excluded. The first was to reduce the potential bias in outcomes caused by the variance in the study pattern of students enrolled in non-core/major subjects. As stated before, students can attempt non-core subjects in any academic year, and their performance is potentially affected by differences in learning experience at different stages of their degree. Foubert and Urbanski (2006) find that senior students (when compared with first-year students) develop higher levels of involvement in college activities, including educational involvement, lifestyle management, career planning, cultural participation, and establishing and clarifying their purpose for higher education. As such, it is potentially advantageous for a student to study a non-core subject in their third year rather than in their first year, as by that stage they are more likely to have developed their study skills and accumulated sufficient experience which enable them to achieve better educational outcomes. Thus, by selecting subjects that follow a structured study pattern, this thesis is able to better correlate student performances with B-PAL workshop participation. The exclusion of other subjects minimises the risk of distortion of results.
due to the timing of enrolment.

The second reason for examining the results in particular subjects relates to the CABLE workshop offerings. Although ACCY231 and ACCY211 are compulsory subjects in the Accountancy major, the CABLE program has never run workshops for these two subjects, and as such no data is available.

Table 5-4 presents the number of Chinese students enrolled in each of the selected subjects over the period of study. In total, 5757 student academic records were collected across the nine subjects over a 6-year period. As can be seen, two of the first-year core subjects, ACCY111 and FIN111, have much larger enrolment numbers compared to other subjects, since these subjects are core for all Commerce majors. Additionally, as ACCY200 and FIN222 are compulsory subjects for both the Accountancy and Finance majors, there are higher enrolments in these subjects.

The data set is larger than those used in comparable studies. For example, Fakeye (2010) studied student personal attributes and academic achievement using 400 student records, while Hall and Bailey (1992) observed 420 students identify institutional and individual influences on their first-year performance. The availability of a relatively large sample in this thesis allows a substantial analysis of the relationship between CABLE workshop participation and student engagement levels/academic performance.

5.4.2 CABLE workshop attendance

CABLE maintained attendance records for workshops offered from 2010 to 2016. The number of workshops offered in the inaugural year, 2010, was limited. However, there was a significant increase in 2011 with a steady offering since then. Thus, only data from 2011 to 2016 is examined in this thesis. The Chinese students who attended the CABLE workshops are referred to as workshop participants, while Chinese students who enrolled in the same subjects and did not attend the CABLE workshops are referred to as non-participants.
<table>
<thead>
<tr>
<th>Year/Session</th>
<th>ACCY111</th>
<th>ACCY112</th>
<th>ACCY200</th>
<th>ACCY201</th>
<th>ACCY305</th>
<th>ACCY312</th>
<th>ACCY342</th>
<th>FIN111</th>
<th>FIN222</th>
<th>Total</th>
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</tr>
<tr>
<td>Total</td>
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<td>95</td>
<td>146</td>
<td>58</td>
<td>58</td>
<td>56</td>
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<td>58</td>
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<tr>
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<td>42</td>
<td>77</td>
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<tr>
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<td>59</td>
<td>39</td>
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<tr>
<td>Total</td>
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<tr>
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<td>414</td>
<td>376</td>
<td>366</td>
<td>354</td>
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<td>946</td>
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</tr>
</tbody>
</table>

Table 5-4: Number of Chinese students enrolled in each subject from 2011 to 2016
5.4.3 Student survey

The quantitative approach is dominant in student engagement research, drawing on a range of statistical analyses including: correlation analysis (Carini et al. 2006; Furrer & Skinner 2003; Miller et al. 1996; Skinner & Belmont 1993), path analysis (Furrer & Skinner 2003; Skinner & Belmont 1993; Walker et al. 2006), factor analysis (Kuh 2001; Miller et al. 1996), t-tests (Zhao et al. 2005), threshold analysis (Klem & Connell 2004), cluster analysis (Coates 2007), regression models (Kuh et al. 2008; Laird et al. 2008), and hierarchical linear modelling (Marks 2000). Such research has relied heavily on surveys and questionnaires for data. Consistent with this, the present study develops and utilises a survey to collect data from students. Questions on the survey instrument were organised around the elements of Kahu’s framework (eg. Motivation, self-efficacy, skills and identity) and developed with reference to a range of relevant academic studies and student surveys such as CETLQ and NSSE (as detailed below). Data was examined through quantitative approaches including path analysis and simple slope analysis.

Kahu’s framework reflects the broad context of student engagement, with acknowledgement of factors such as culture, power, policy, and economics in the shaping of student engagement. However, given the scope of this thesis, these broad contextual factors are not examined. As indicated earlier, this research is more focused on the effect of student psychosocial influences on student engagement, and ultimately, on academic performance. However, as noted by Kahu herself, a limitation of the framework is that “more research is needed to further explore the relationships within the framework to strengthen our understanding of each element” (Kahu, 2013, p. 769). So, although the framework highlights the relationship between various student engagement factors and proximal consequences, little has been done to empirically verify the established relationships. The present thesis fills this gap by providing an empirical examination of the relationship between the antecedents of student engagement and the proximal consequences, as outlined in Kahu’s framework. The antecedents include student motivation, skills, identity, and self-efficacy. Student engagement levels are reflected in factors such as
affection, cognition, and behaviour; and proximal consequences are viewed from academic and social perspectives, including academic achievement and social satisfaction.

Previous research has examined the aforementioned factors individually, including studies on motivation (Brown 2016; Fazey & Fazey 2001; Walker et al. 2006; Xu 2004), skills (Carini et al. 2006; Koljatic & Kuh 2001; Kuh 2016; Neumann & Hood 2009), self-efficacy (Bandura 2006; Linnenbrink & Pintrich 2003; Pintrich & Schrauben 1992), and identity (Solomonides & Reid 2009; Tinker et al. 2012). However, this thesis adopts an integrated approach, examining all four factors of student engagement simultaneously. The student survey contained 51 questions in total, including 47 questions where responses are measured on a five-point Likert scale, two tick-the-box type questions, and two open-ended questions. Table 5-5 presents the stated factors under examination, the referential source used to formulate these questions, and the survey questions.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Source</th>
<th>Questions</th>
</tr>
</thead>
</table>
| Motivation | CETLQ Xu (2004) | 1. I want to develop the knowledge and skills that I can use in a career.  
2. I hope the things I learn will help me to develop as a person and broaden my horizons.  
3. I want to learn things which might let me help people, and/or make a difference in the world.  
4. I want to study the course in-depth by taking interesting and stimulating subjects.  
5. I want an opportunity to prove to myself or to other people what I can do. |
| Skills | CETLQ Xu (2004) | 6. If I’ve not understood things well enough when studying, I’ve tried a different approach.  
7. In making sense of new ideas, I have often related them to practical or real-life contexts.  
8. Whenever possible, I’ve just memorised what has been taught without trying to understand it.  
9. I’ve been quite good at preparing for classes in advance.  
10. I’ve looked at the evidence carefully to reach my own conclusions about what I’m studying.  
11. I’ve organised my study time carefully to make the best use of it.  
12. It has been important for me to follow the argument or to see the reasons behind things.  
13. I’ve tended to take what we’ve been taught at face value without questioning it much.  
14. I usually finish homework assignments by the stipulated deadlines.  
15. I avoid study when there are other more interesting things to do.  
16. I am able to concentrate on university subjects.  
17. I usually take notes during the lectures.  
18. I use the library to get information for subject assignments. |
| Self-efficacy | Self-efficacy Bandura (2006) | 19. I have a plan for my homework and assignments.  
20. I finish my homework and assignments according to my study schedule.  
21. I remember the information presented in the lecture and textbooks.  
22. I arrange a place to study without distractions.  
23. I am self-motivated to study privately and to complete assigned tasks.  
24. I participate in class discussions. |
| --- | --- | --- |
| Identity | The Multi-Group Ethnic Identity Measure (MEIM) Phinney (1992) | 25. I am active in organisations or social groups that include most members of my own ethnic groups.  
26. I am involved in activities with people from other ethnic groups.  
27. I feel a strong attachment to my own ethnic group.  
28. I feel good about my cultural or ethnic background.  
29. I like meeting and getting to know people from ethnic groups other than my own.  
30. I enjoy being around people from ethnic groups other than my own. |
| Behaviour - Time & Effort | NSSE and AUSSE | 31. I use online resources for reinforcing content learned from the lecture.  
32. I use ECHO (listen to the recording of lectures).  
33. I work harder than I thought I could to meet an instructor's standards or expectations.  
34. I review a copy of the lecture notes before attending the lectures.  
35. I work with classmates outside of class on class projects, tutorial questions or assignments.  
36. I use an electronic tool (emails, message, or WeChat, etc.) to communicate with other students about homework.  
37. I discuss a tutorial question or grade with an instructor during tutorial classes.  
38. I discuss ideas from my reading or classes with teachers outside of class (during consultation time).  
39. I have serious conversations about the subject matter with students of a different race or ethnicity than my own. |
| Behaviour - Interaction | NSSE and AUSSE | 40. I usually attend lectures.  
41. I usually attend weekly tutorials.  
42. I usually attend PASS sessions.  
43. I use online forums to discuss the subject matter with other students (e.g. Moodle). |
| Behaviour - Participation | NSSE and AUSSE | 44. I learned to improve my study skills by listening, note-taking, highlighting readings, working with others, etc.  
45. I learned skills and strategies to improve my test-taking ability through lecture and tutorials.  
46. I learned to think critically and analytically through lectures and tutorials.  
47. I learned to learn effectively on my own through lecture and tutorials. |
| Academic Achievement - Self-report outcome | NSSE and AUSSE | 48. What issues/problems have you encountered while studying at UOW, Australia?  
- Language barriers in a learning environment  
- Language barriers in a social environment  
- The subject covers too much content  
- Unable to understand the teaching staff (due to accent)  
- Do you have enough time to complete assessments?  
- Lacking basic knowledge, cannot follow up with the progress  
- Cannot understand what is taught in class  
- Don’t know how to manage study time  
- Issues with academic writing  
- Cannot understand terminologies/slangs used by teaching staff |
| Chinese Learner Challenges | Literature Review | --- |
Questions 1 to 5 relate to the motivation factor. Prior research studies have used the NSSE and AUSSE surveys to examine educational practices and student engagement (Campbell & Cabrera 2011; Filkins & Doyle 2002; Hamish 2010; Hu et al. 2011; Kuh 2003; Nelson et al. 2012; Pascarella et al. 2010). However, these surveys focus on student behavioural engagement and fail to map the multidimensional nature of student motivation and engagement (Hagel et al. 2012; Kahu 2013; Yin & Wang 2016; Yu et al. 2019). Another study by a research team at Tsinghua University adapted the NSSE (Shi et al. 2011) to develop an instrument suitable for the Chinese context, namely the Chinese College Student Survey (CCSS). This instrument aimed to examine the student learning process and to improve the quality of higher education in China (Shi et al. 2014). However, the context and culture of higher education in China differ to those experienced by Chinese students studying in Australia (Brand 2004). Thus, this research sought other survey instruments to frame questions around the motivation factor.

As such, Questions 1 to 5 were extracted from the Chinese Experiences of Teaching & Learning Questionnaire (CETLQ). The CETLQ is a revised version of the Experiences of Teaching &
Learning Questionnaire (ETLQ), which was specifically developed for use by UK higher education institutions in the Enhancing Teaching and Learning Environments in Undergraduate Courses Project (Xu 2004). The ETLQ is used to develop subject-specific conceptual frameworks to guide institutional, faculty or departmental development in order to improve teaching and learning environments (ETL Project 2017). Other researchers have used the ETLQ to evaluate educational programs from the student perspective (Entwistle et al. 2002; Hounsell & Hounsell 2007; Reimann 2004). Xu (2004) modified the ETLQ to CETLQ by adding considerations of cultural- and disciplinary-specific contexts to collect information about Chinese students’ approaches to studying and their perception of their learning environment.

A number of questions in the CETLQ examine Chinese students’ motivation (intrinsic and extrinsic) during their university study (Xu 2004). Student intrinsic motivation is a precursor to the desired deep learning strategies (Biggs et al. 2001; Biggs 1987, 2011; Watkins & Biggs 1996). Intrinsic motivation factors affect student engagement, while extrinsic motivational factors are related to the socio-economic status of the student (Lin 2007; Sutinen & Kuperan 1999) and have less impact on the learning strategy that a student may adopt. Thus, only questions related to intrinsic motivation are included in the integrated survey adopted in this thesis.

Questions 6 to 13 examine skill factors and are also adapted from the CETLQ. Kahu (2013) defines skills as something more than behaviours relating to the acquisition of knowledge; that is, skills include students’ self-regulation and effective use of deep and surface learning strategies. The CETLQ survey includes questions relating to the deep and surface approaches to learning, which align with Kahu’s (2013) definition of skill factors. Hence the CETLQ questions to measure student skills are included in the current survey.

Questions 14 to 24 examine self-efficacy and are based on the scale developed by Bandura (2006). Bandura’s self-efficacy survey is utilised in studies to examine non-cognitive variables in student learning (Beatson et al. 2018, 2019; Meece et al. 2006; Pajares & Schunk 2001; Pintrich & De
While Bandura’s questions inform the survey questions in the current study, some re-wording was necessary to achieve consistency between this and other sections of the survey, as well as to suit the university context. For example, an original question in Bandura’s (2006) survey, namely ‘finish my homework assignments by deadlines’, has been reworded to ‘I usually finish homework assignments by the stipulated deadlines’. Similarly, ‘Always concentrate on school subjects during class’ has been reworded to ‘I am able to concentrate on university subjects.’ The re-wording process does not alter any meanings embedded in the original questions.

Questions 25 to 30 are about student identity. Identity is an important socio-cultural perspective of student engagement (Kahu, 2013). According to Phinney (1992), a student’s identity is constantly changing, due to factors such as a change of understanding in social group membership, and the value and emotional significance attached to that membership. Social identities are the self-referenced perceptions that people have about themselves and are associated with particular contexts, situations, or roles (Tinker et al. 2012). If a student’s perception of their learning identity is both positive and pronounced, then they are more likely to engage with that learning context, and act in ways that align with expectations consistent with learning norms (Smith & Terry 2003).

Phinney (1992) originally developed the Multi-Group Ethnic Identity Measure (MEIM) as a tool to measure student belongingness of a particular ethnic group; and in later developments, the MEIM was used to study students from multiple ethnic backgrounds. The MEIM has been widely applied to research regarding student social identity (Phinney 2010; Ponterotto et al. 2003; Roberts et al. 1999). Thus, aspects of the MEIM have been adopted to construct questions relating to Chinese students’ identity while studying overseas.

Questions 31 to 43 relate to student behaviour, for example, the time and effort spent on studying, interaction with peers and lecturers, and participation in the designated contact teaching hours, and are framed with reference to relevant questions in the NSSE and AUSSE survey instruments. Kahu (2013) indicates that student engagement is a multi-faceted construct that consists of
in institutional practices (such as lectures, tutorials, and other learning support programs) and student behaviours (such as class participation and self-effort), and these are related to student satisfaction and achievements. The NSSE frames student engagement in terms of active and collaborative learning, participation in challenging academic activities, communication with academic staff, involvement in the educational experience, and engagement in university-supported learning communities. 560 colleges and universities participated in the NSSE in 2016, with a total number of 322,582 students completing the survey (National Survey of Student Engagement 2017). Over 1,600 colleges and universities and approximately 5.5 million students have participated in the NSSE since 2000 (National Survey of Student Engagement 2017). The wide reach of the NSSE provides “high-quality, actionable data that institutions have used to improve the undergraduate experience” (Kuh 2003, p. 9).

Coates (2005) highlights the importance of student engagement to determine the quality of university education in the Australian context. In collaboration with the Australian Council of Educational Research and the NSSE, the AUSSE has been developed with a similar structure to the NSSE in order to capture data on student learning across five aspects: academic challenge, active and collaborative learning, student and staff interactions, enriching educational experiences, and supportive learning environments (Coates 2009). Twenty-nine higher education institutions in Australia and New Zealand participated in the AUSSE (Coates 2009), and the data provide insights into the quality of education. Both the NSSE and AUSSE provide frameworks for examining student engagement levels in a quantitative manner. Thus, questions from the NSSE and AUSSE that are relevant to student behaviour have been included in the current survey instrument in order to further examine its relationship with student engagement.

Questions 44 to 47 examine self-reported academic achievement (perceived academic performance). These questions seek to elicit a student’s perception of whether there has been an improvement in their study skills and whether the improvement has been reflected in their academic performance (as measured in marks and grades). It is noted that the number of students
who completed the survey is relatively too small to conduct reliable statistical analysis of their actual academic performance, so instead, the survey respondents were asked to consider improvement in terms of their own perceptions of academic performance. As mentioned previously, the NSSE and AUSSE have been widely used in student engagement research to capture student perception and behaviour towards their learning experience (for example, see Coates 2005, 2006, 2007, 2011; Kuh 2001, 2003, 2009; Kuh et al., 2008; McCarthy & Kuh 2006; Pike 2006; Zhao & Kuh 2004), and as such questions in the current survey on student behaviour and self-reported achievement were based on these surveys.

Question 48 is specific to Chinese learners. This question is informed by studies on Chinese learners as outlined in Chapter 3. Responses to this question provide information on the challenges and difficulties that Chinese learners experience when studying overseas.

Questions 49 to 51 examine student experiences and attitudes towards the CABLE program. These questions aim to examine a student’s rationale for participating in the CABLE workshops and their impressions of these workshops. These questions are not relevant to students who did not attend any of the CABLE workshops. Two questions are open-ended and give survey participants the opportunity to provide their comments and feedback regarding the workshops or the program itself. Responses to these questions are also used to identify issues to be examined further in the interview component of this research. All three questions are adopted from previous studies evaluating the effectiveness of standard PAL programs (for example, see Devin & Jolly 2011, Etter et al. 2001; Hensen & Shelly 2003; Longfellow et al., 2008; Van Ser Meer & Scott 2009).

The survey was sent out to 508 Chinese accounting students in March 2017 and responses were collected by June 2017 from students who had commenced their study over a range of years, namely 2014, 2015, 2016 and 2017. 245 students responded to the survey with 205 completing it, giving a 40% survey response rate. Of the completed responses, 169 students were workshop
participants and 36 were non-participants. The high number of participants may due to that students were more likely to respond to a survey about something that they were familiar with. It is suggested that the low number of non-participants reflects the popularity of CABLE program among Chinese students. To illustrate this, Table 5-6 shows the number of CABLE workshop participants, non-participant, and non-participant percentages over 2015 and 2016. The non-participant percentage relates to the number of non-participants compared with the total number of Chinese students enrolled in the subject each year. It can be seen that for the subjects that are only taken by Accountancy major students (that is, ACCY112, ACCY201, ACCY305 and ACCY342), the non-participant percentage ranges from 34% to 43%, providing a general indication of the popularity of the CABLE program among Chinese Accountancy major students.

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</tr>
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<td>Non-participants</td>
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<tr>
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</tr>
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<tr>
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<td>Non-participants</td>
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<tr>
<td></td>
<td>Non-participants ratio</td>
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</tr>
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</tr>
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</tr>
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<td></td>
<td>Non-participants</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Non-participants ratio</td>
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</tr>
<tr>
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<td>CABLE workshop participants</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>Non-participants</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>Non-participants ratio</td>
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</tr>
<tr>
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<td>CABLE workshop participants</td>
<td>79</td>
</tr>
<tr>
<td></td>
<td>Non-participants</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>Non-participants ratio</td>
<td>44%</td>
</tr>
</tbody>
</table>

Table 5-6: CABLE workshop participants vs non-participants from 2015 and 2016
In summary, the survey used in this thesis is designed with reference to multiple recognised sources. It is constructed as an integrated survey to measure the influence of the four factors identified in Kahu’s (2013) model on student engagement on perceived academic performance, with additional inquiries made towards student learning behaviours and experiences of the CABLE program. In total, 205 surveys were completed by participants and non-participants. Before conducting the analysis of the data, it is necessary to examine the reliability and validity of the survey instrument to ensure that the survey data is robust in terms of research outcome. The next section describes the examination of the survey instrument’s reliability and validity.

### 5.4.4 Reliability and validity of the survey instrument

The reliability of a survey refers to a statistical measure of how reproducible the survey data are (Litwin & Fink 1995). The internal consistency reliability test is achieved as the 47 Likert-scale questions are drawn from various sources. Cronbach’s alpha (α) is used to measure the consistency of the survey reliability and reflects how well the different items complement each other in their measurement of different aspects of the same variable. Table 5-7 lists the factors, items, factor loading, and Cronbach’s alpha for each factor and item. For two factors, Behaviour – Time & Effort and Behaviour – Participation, the alpha is less than 0.70. Further analysis is required to examine whether these two factors are relevant to the survey outcome. Other factors including Motivation, Skills, Self-efficacy, Identity, Behaviour – Interaction and Perceived Academic Achievement, have alphas greater than 0.70, which indicate they are reliable.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Items</th>
<th>Factor Loading</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>1. I want to develop the knowledge and skills that I can use in a career.</td>
<td>0.70</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. I hope the things I learn will help me to develop as a person and broaden my horizons.</td>
<td>0.79</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. I want to learn things which might let me help people, and/or make a difference in the world.</td>
<td>0.69</td>
<td>0.812</td>
</tr>
<tr>
<td></td>
<td>4. I want to study the course in-depth by taking interesting and stimulating subjects.</td>
<td>0.74</td>
<td></td>
</tr>
</tbody>
</table>

29 Cronbach’s alpha provides a measure of the internal consistency of a test or scale. While differences exist, commonly acceptable level of alpha ranges from 0.7 to 0.95 (Tavakol and Dennick 2011).
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Skills</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>I want an opportunity to prove to myself or to other people what I can do.</td>
<td>0.56</td>
</tr>
<tr>
<td>6.</td>
<td>If I’ve not understood things well enough when studying, I’ve tried a different approach.</td>
<td>0.66</td>
</tr>
<tr>
<td>7.</td>
<td>In making sense of new ideas, I have often related them to practical or real-life contexts.</td>
<td>0.71</td>
</tr>
<tr>
<td>8.</td>
<td>Whenever possible, I’ve just memorised what has been taught without trying to understand it.</td>
<td>0.70</td>
</tr>
<tr>
<td>9.</td>
<td>I’ve been quite good at preparing for classes in advance.</td>
<td>0.42</td>
</tr>
<tr>
<td>10.</td>
<td>I’ve looked at the evidence carefully to reach my own conclusions about what I’m studying.</td>
<td>0.32</td>
</tr>
<tr>
<td>11.</td>
<td>I’ve organised my study time carefully to make the best use of it.</td>
<td>0.51</td>
</tr>
<tr>
<td>12.</td>
<td>It has been important for me to follow the argument, or to see the reasons behind things.</td>
<td>0.53</td>
</tr>
<tr>
<td>13.</td>
<td>I’ve tended to take what we’ve been taught at face value without questioning it much.</td>
<td>0.40</td>
</tr>
<tr>
<td><strong>Self-efficacy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>I usually finish homework assignments by the stipulated deadlines.</td>
<td>0.62</td>
</tr>
<tr>
<td>15.</td>
<td>I avoid study when there are other more interesting things to do.</td>
<td>0.14</td>
</tr>
<tr>
<td>16.</td>
<td>I am able to concentrate on university subjects.</td>
<td>0.71</td>
</tr>
<tr>
<td>17.</td>
<td>I usually take notes during the lectures.</td>
<td>0.64</td>
</tr>
<tr>
<td>18.</td>
<td>I use the library to get information for subject assignments.</td>
<td>0.60</td>
</tr>
<tr>
<td>19.</td>
<td>I have a plan for my homework and assignments.</td>
<td>0.77</td>
</tr>
<tr>
<td>20.</td>
<td>I finish my homework and assignments according to my study schedule.</td>
<td>0.66</td>
</tr>
<tr>
<td>21.</td>
<td>I remember the information presented in the lecture and textbooks.</td>
<td>0.69</td>
</tr>
<tr>
<td>22.</td>
<td>I arrange a place to study without distractions.</td>
<td>0.60</td>
</tr>
<tr>
<td>23.</td>
<td>I am self-motivated to study privately and to complete assigned tasks.</td>
<td>0.65</td>
</tr>
<tr>
<td>24.</td>
<td>I participate in class discussions.</td>
<td>0.70</td>
</tr>
<tr>
<td><strong>Identity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td>I use online forums to discuss the subject matter with other students (e.g. Moodle).</td>
<td>0.67</td>
</tr>
<tr>
<td>26.</td>
<td>I am active in organisations or social groups that include most members of my own ethnic groups.</td>
<td>0.60</td>
</tr>
<tr>
<td>27.</td>
<td>I am involved in activities with people from other ethnic groups.</td>
<td>0.48</td>
</tr>
<tr>
<td>28.</td>
<td>I feel a strong attachment to my own ethnic group.</td>
<td>0.46</td>
</tr>
<tr>
<td>29.</td>
<td>I feel good about my cultural or ethnic background.</td>
<td>0.55</td>
</tr>
<tr>
<td>30.</td>
<td>I like meeting and getting to know people from ethnic groups other than my own.</td>
<td>0.67</td>
</tr>
</tbody>
</table>
### Behaviour - Time & Effort

| 31. I use online resources for reinforcing content learned from the lecture. | 0.56 |
| 32. I use ECHO (listen to the recording of lectures). | 0.43 |
| 33. I work harder than I thought I could to meet an instructor's standards or expectations. | 0.45 |
| 34. I review a copy of the lecture notes before attending the lectures. | 0.71 |

---

### Behaviour - Interaction

| 35. I work with classmates outside of class on class projects, tutorial questions or assignments. | 0.62 |
| 36. I use an electronic tool (emails, class WeChat, etc.) to communicate with other students about coursework. | 0.46 |
| 37. I discuss a tutorial question or grade with an instructor during tutorial classes. | 0.80 |
| 38. I discuss ideas from my reading or classes with teachers outside of class (during consultation time). | 0.84 |
| 39. I have serious conversations about the subject matter with students of a different race or ethnicity than my own. | 0.72 |

---

### Behaviour - Participation

| 40. I usually attend lectures. | 0.44 |
| 41. I usually attend weekly tutorials. | 0.43 |
| 42. I usually attend PASS sessions. | 0.65 |
| 43. I use online forums to discuss the subject matter with other students (e.g. Moodle). | 0.65 |

---

### Perceived Academic Achievement

| 44. I learned to improve my study skills by listening, note-taking, highlighting readings, working with others, etc. | 0.76 |
| 45. I learned skills and strategies to improve my test-taking ability through lecture and tutorials. | 0.85 |
| 46. I learned to think critically and analytically through lectures and tutorials. | 0.82 |
| 47. I learned to learn effectively on my own through lectures and tutorials. | 0.64 |

### Table 5-7: Student survey factor loading and Cronbach's alpha

Validity is the extent to which any measuring instrument measures what it is intended to measure (Furr & Bacharach 2013), and is about the interpretation of data arising from a specified procedure. This survey adopts Confirmatory Factor Analysis (CFA)\(^{30}\), a common Structural Equation Modelling (SEM) technique, to examine the construct validity of the survey to measure

---

\(^{30}\)CFA, a Structural Equation Modelling (SEM) technique, is often used to examine the validity of a survey (Byrne 2016). SEM is a powerful technique that often combines complex path models with latent variables (factors) (Hox & Bechger 1998). The latent variables are theoretical constructs; however, they cannot be measured or observed directly. The relationships between the theoretical constructs are represented by regression or path coefficients between the factors. The SEM implies a structure for the covariances between the observed variables.
how meaningful the scale or instrument is when it is in used in practice. In this survey, the 47 items measure eight factors, and factor analysis is used to validate the survey. The criterion of reasonable sample size is fulfilled as this research comprises 205 cases (Hoogland & Boomsma 1998). Table 5-8 lists the result of CFA.

<table>
<thead>
<tr>
<th>Model</th>
<th>CMIN/DF (Normed chi-square)</th>
<th>RMR</th>
<th>RMSEA</th>
<th>GFI (Goodness-of-fit index)</th>
<th>AGFI (Adjusted GFI)</th>
<th>NFI</th>
<th>CFI (Comparative fit index)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acceptable level</td>
<td>&lt;3</td>
<td>&lt;0.05 (if &lt;0.05 Good; &lt;0.08 Acceptable)</td>
<td>&gt;0.90</td>
<td>&gt;0.90</td>
<td>&gt;0.90</td>
<td>&gt;0.90</td>
<td></td>
</tr>
<tr>
<td>Default Model</td>
<td>2.732</td>
<td>0.074</td>
<td>0.092</td>
<td>0.627</td>
<td>0.582</td>
<td>0.554</td>
<td>0.657</td>
</tr>
</tbody>
</table>

Table 5-8: Confirmatory Factor Analysis

The previous reliability test has low α on two factors, namely Behaviour - Time & Effort and Behaviour - Participation. The results of CFA analysis also fail to reveal a model of strong fit with survey data, as only CMIN is within an acceptable level. The indicators GFI, AGFI, NFI, CFI, and RMSEA\(^{31}\) are below the acceptable levels, which demonstrate that the survey instrument does not fit the data very well. As a result, it is necessary to examine the Average Variance Extracted (AVE) that measures the amount of variance captured by a construct due to measurement error. The larger the AVE, the better the construct items can capture the concept to be measured. Table 5-9 shows the composite reliability and AVE result.

\(^{31}\)Goodness-of-Fit (GFI) is the indicator of statistical tests for model fit. It often varies with the sample size. If the sample size is large, the statistical analysis will almost certainly be significant. Conversely, with a tiny sample, the model will always be accepted, even if it fits rather badly. Joreskog and Sorbom (1989) introduced GFI and Adjusted GFI (AGFI). The AGFI attempts to adjust the GFI of the complexity of the model. The Normed Fit Index (NFI) further provides adjustment to the complexity of the model (Bentler 1990). It is suggested that the acceptable level for GFI, AGFI, and NFI is greater than 0.9.

Another important indicator is Root Mean Square Error of Approximation (RMSEA), which describes how well the model, with unknown but optimally chosen parameter estimates, would fit the population covariance matrix (Byrne 2016). The RMSEA is very sensitive to the number of estimated parameters in the model, and it favours the model with fewer parameters. The ideal range of the RMSEA for a well-fitting model is a lower limit close to 0 and upper limit less than 0.08.
<table>
<thead>
<tr>
<th>Factor</th>
<th>Loading</th>
<th>Reliability</th>
<th>Error</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation1</td>
<td>0.70</td>
<td>0.48</td>
<td>0.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation2</td>
<td>0.79</td>
<td>0.62</td>
<td>0.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation3</td>
<td>0.69</td>
<td>0.48</td>
<td>0.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation4</td>
<td>0.74</td>
<td>0.55</td>
<td>0.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation5</td>
<td>0.56</td>
<td>0.31</td>
<td>0.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills6</td>
<td>0.66</td>
<td>0.43</td>
<td>0.57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills7</td>
<td>0.71</td>
<td>0.51</td>
<td>0.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills8</td>
<td>0.70</td>
<td>0.49</td>
<td>0.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills9</td>
<td>0.42</td>
<td>0.18</td>
<td>0.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-efficacy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-efficacy15</td>
<td>0.62</td>
<td>0.39</td>
<td>0.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-efficacy16</td>
<td>0.14</td>
<td>0.02</td>
<td>0.98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-efficacy17</td>
<td>0.71</td>
<td>0.50</td>
<td>0.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-efficacy18</td>
<td>0.64</td>
<td>0.41</td>
<td>0.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-efficacy19</td>
<td>0.60</td>
<td>0.36</td>
<td>0.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-efficacy20</td>
<td>0.77</td>
<td>0.59</td>
<td>0.41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-efficacy21</td>
<td>0.66</td>
<td>0.44</td>
<td>0.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-efficacy22</td>
<td>0.69</td>
<td>0.47</td>
<td>0.53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-efficacy23</td>
<td>0.60</td>
<td>0.36</td>
<td>0.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-efficacy24</td>
<td>0.65</td>
<td>0.42</td>
<td>0.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identity25</td>
<td>0.67</td>
<td>0.44</td>
<td>0.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identity26</td>
<td>0.60</td>
<td>0.36</td>
<td>0.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identity27</td>
<td>0.48</td>
<td>0.23</td>
<td>0.77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identity28</td>
<td>0.46</td>
<td>0.21</td>
<td>0.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identity29</td>
<td>0.55</td>
<td>0.30</td>
<td>0.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identity30</td>
<td>0.67</td>
<td>0.45</td>
<td>0.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time &amp; Effort</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time &amp; Effort31</td>
<td>0.56</td>
<td>0.31</td>
<td>0.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time &amp; Effort32</td>
<td>0.43</td>
<td>0.19</td>
<td>0.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time &amp; Effort33</td>
<td>0.45</td>
<td>0.20</td>
<td>0.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time &amp; Effort34</td>
<td>0.71</td>
<td>0.50</td>
<td>0.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction35</td>
<td>0.62</td>
<td>0.39</td>
<td>0.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction36</td>
<td>0.46</td>
<td>0.21</td>
<td>0.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction37</td>
<td>0.80</td>
<td>0.64</td>
<td>0.36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction38</td>
<td>0.84</td>
<td>0.70</td>
<td>0.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction39</td>
<td>0.72</td>
<td>0.51</td>
<td>0.49</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Factor loading values, CR, and AVE should be greater than 0.5, 0.6, and 0.5, respectively, for the construct items to be validated. Among the eight factors, items representing Motivation and Perceived Academic Achievement reported the expected values, and no modification is required. Modification is required for some items with low factor loading in the Skills factor. For example, the factor loadings for items Skills9, Skills10, and Skills13 are less than 0.5; therefore, these are removed. Further, the AVE for Skills is only 0.31, and a total of nine construct items measure the Skills factor. As a result, item Skill11 is removed to increase the AVE value for a better model fit.

For Self-efficacy, the factor loading for Self-efficacy16 is 0.14 (and thus less than 0.5). Therefore, this item is removed. As the overall AVE is only 0.4, and Self-efficacy has ten construct items, Self-efficacy19 and Self-efficacy23 are removed (as they have the lowest factor loading) to increase the AVE value.

For Identity, the factor loadings for Identity27 and Identity28 are 0.48 and 0.46, which are lower than 0.5. Therefore, these two items are removed for a better AVE value.

For the factor Behaviour – Time & Effort, the AVE is 0.3, and the factor loadings for Time & Effort32 and Time & Effort33 are 0.43 and 0.45, respectively, which are lower than 0.5.

<table>
<thead>
<tr>
<th>Participation</th>
<th>CR</th>
<th>AVE</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>0.44</td>
<td>0.19</td>
<td>0.81</td>
</tr>
<tr>
<td>41</td>
<td>0.43</td>
<td>0.18</td>
<td>0.82</td>
</tr>
<tr>
<td>42</td>
<td>0.65</td>
<td>0.42</td>
<td>0.58</td>
</tr>
<tr>
<td>43</td>
<td>0.65</td>
<td>0.42</td>
<td>0.58</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Perceived Academic Achievement</th>
<th>CR</th>
<th>AVE</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>44</td>
<td>0.76</td>
<td>0.57</td>
<td>0.43</td>
</tr>
<tr>
<td>45</td>
<td>0.85</td>
<td>0.72</td>
<td>0.28</td>
</tr>
<tr>
<td>46</td>
<td>0.82</td>
<td>0.67</td>
<td>0.33</td>
</tr>
<tr>
<td>47</td>
<td>0.64</td>
<td>0.41</td>
<td>0.59</td>
</tr>
</tbody>
</table>

Table 5-9: Composite Reliability and AVE
Therefore, these two items are removed. For Behaviour – Participation, the factor loadings for Participation40 and Participation41 are 0.44 and 0.43, respectively, and lower than 0.5. Therefore, these two items are removed. After removal of the items with low factor loadings in Behaviour – Time & Effort and Behaviour – Participation factors, only a total number of four items remain for these two factors. Hence, for a better validation test, these two factors are combined into one factor named ParticipationII.

For Behaviour – Interaction, Interaction36 is removed due to its low factor loading.

In summary, to achieve a better result, 14 constructed items are removed, and 33 items remain. Two factors are combined into a new factor, leading to a final set of seven factors. Table 5-9 shows a summary of revised items and factors for a second CFA test to re-examine the reliability and validity of the survey.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Items</th>
<th>Factors</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>Motivation1</td>
<td>Identity</td>
<td>Identity25</td>
</tr>
<tr>
<td></td>
<td>Motivation2</td>
<td></td>
<td>Identity26</td>
</tr>
<tr>
<td></td>
<td>Motivation3</td>
<td></td>
<td>Identity29</td>
</tr>
<tr>
<td></td>
<td>Motivation4</td>
<td></td>
<td>Identity30</td>
</tr>
<tr>
<td></td>
<td>Motivation5</td>
<td>ParticipationI</td>
<td>Time &amp; Effort31</td>
</tr>
<tr>
<td>Skills</td>
<td>Skills6</td>
<td></td>
<td>Time &amp; Effort34</td>
</tr>
<tr>
<td></td>
<td>Skills7</td>
<td></td>
<td>Participation42</td>
</tr>
<tr>
<td></td>
<td>Skills8</td>
<td></td>
<td>Participation43</td>
</tr>
<tr>
<td></td>
<td>Skills12</td>
<td></td>
<td>Interaction35</td>
</tr>
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<td></td>
<td>Skills14</td>
<td></td>
<td>Interaction37</td>
</tr>
<tr>
<td></td>
<td>Self-efficacy15</td>
<td></td>
<td>Interaction38</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>Self-efficacy17</td>
<td></td>
<td>Academic Achievement44</td>
</tr>
<tr>
<td></td>
<td>Self-efficacy18</td>
<td></td>
<td>Academic Achievement45</td>
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<td></td>
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<td>Academic Achievement46</td>
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<td></td>
<td>Academic Achievement47</td>
</tr>
<tr>
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<td>Self-efficacy22</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Self-efficacy24</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Table 5-10: Revised survey items*
Table 5-11: CFA outcome

Tables 5-10 and 5-11 show the results of the second reliability and validity tests. All seven factors’ alphas are greater than 0.07. The CFA test also demonstrates more favourable results. The CMIN is 2.678, RMR<0.05, and GFI, AGFI, NFI, and CFI are >0.90, indicating that the revised survey model is close to the saturated model. Further, RMSEA is 0.071 and RMR is 0.04, indicating a good fit. In addition, the AVE for each factor is greater than 0.05, which shows that the revised items and factors capture the concept that needs to be measured. Overall, the revised survey model is reliable and validated, and can be used for further examination to identify the relationships between factors. Table 5-12 demonstrates survey instruments results for factor loading, AVE, and Cronbach’s Alpha. In Chapter 6, two path models were established to capture the correlational relationship between these factors to student engagement and to perceived academic achievement. The path model results provide insights of these factors impact on student engagement.
<table>
<thead>
<tr>
<th>Dimension</th>
<th>Item</th>
<th>Factor loading</th>
<th>Reliability</th>
<th>CR</th>
<th>AVE</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>Motivation1</td>
<td>0.70</td>
<td>0.48</td>
<td></td>
<td></td>
<td></td>
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<tr>
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<td>Motivation2</td>
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<td>0.63</td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>Motivation3</td>
<td>0.69</td>
<td>0.48</td>
<td>0.90</td>
<td>0.51</td>
<td>0.812</td>
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<td></td>
<td>Motivation4</td>
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<td></td>
<td>Motivation5</td>
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<td>0.31</td>
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<td></td>
<td>Skills6</td>
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<td>0.46</td>
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<tr>
<td></td>
<td>Skills7</td>
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<td>0.58</td>
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<tr>
<td>Skills</td>
<td>Skills8</td>
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<td>0.80</td>
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<tr>
<td></td>
<td>Skills12</td>
<td>0.50</td>
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<tr>
<td></td>
<td>Skills14</td>
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<td></td>
<td>Self-efficacy15</td>
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<td></td>
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<td>Self-efficacy18</td>
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<td>0.41</td>
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<tr>
<td>Self-efficacy</td>
<td>Self-efficacy20</td>
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<td></td>
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<tr>
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<td>Self-efficacy22</td>
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<td>0.48</td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>Self-efficacy24</td>
<td>0.64</td>
<td>0.41</td>
<td></td>
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<tr>
<td>Participation II</td>
<td>Time &amp; Effort25</td>
<td>0.51</td>
<td>0.26</td>
<td></td>
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<tr>
<td></td>
<td>Time &amp; Effort28</td>
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<td>0.37</td>
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<td></td>
<td>Participation36</td>
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<td></td>
<td>Participation37</td>
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<td>0.36</td>
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<td></td>
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</tr>
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<td></td>
<td>Interaction29</td>
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<td>0.32</td>
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<tr>
<td>Interaction</td>
<td>Interaction31</td>
<td>0.83</td>
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<td>0.83</td>
<td>0.56</td>
<td>0.828</td>
</tr>
<tr>
<td></td>
<td>Interaction32</td>
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<td>0.76</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Interaction33</td>
<td>0.69</td>
<td>0.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Identity38</td>
<td>0.68</td>
<td>0.46</td>
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<td></td>
</tr>
<tr>
<td>Identity</td>
<td>Identity39</td>
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<td>0.32</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Identity42</td>
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<td>0.30</td>
<td>0.72</td>
<td>0.50</td>
<td>0.705</td>
</tr>
<tr>
<td></td>
<td>Identity43</td>
<td>0.70</td>
<td>0.48</td>
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<td>0.75</td>
<td>0.56</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic</td>
<td>Academic Achievement45</td>
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<td>0.71</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achievement</td>
<td>Academic Achievement46</td>
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<td>0.68</td>
<td>0.85</td>
<td>0.59</td>
<td>0.845</td>
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<td></td>
<td>Academic Achievement47</td>
<td>0.65</td>
<td>0.43</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|Table 5-12: Result for factor loading, AVE, and Cronbach’s Alpha|

5.4.5 Interviews

The third research question aims to identify the potential benefits for Chinese students who
participate in the CABLE program. Cui et al. (2015) view CABLE as more than a learning support program, extending to social networking and support capacities. Therefore, in addition to correlating program attendance with improved academic performance, this thesis endeavours to investigate why students consider it worthwhile to participate in a voluntary program, in terms of academic and non-academic outcomes.

Semi-structured interviews with open-ended questions were conducted with a small number of student volunteers in order to explore student perceptions and attitudes towards the CABLE program. During the course of the survey, students were asked if they were interested in participating in follow-up interviews, and sixteen students expressed their interest. The final ten interview participants were randomly selected from those volunteers. Interview questions aimed to find out about the motivation of Chinese students to participate in the CABLE program, along with insights into their experience and perceptions of the workshops. The interview questions also encouraged the students to elaborate on the challenges and difficulties that they faced in an international higher education context, and their perceptions of how attendance at CABLE activities reduced these. In addition, students were asked to comment on the effect of positive traits displayed by CABLE program leaders on their study skills, especially in terms of Kahu’s (2013) four psychosocial influence factors - motivation, skills, self-efficacy, and identity. The questions were designed to draw out the factors that motivated or demotivated students to participate in the workshops, along with their perception of self-efficacy at different stages of their studies. The data from these questions was used to inform discussion of the non-academic proximal consequences. Table 5-13 presents the interview questions.
### Table 5-13: Interview Questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Can you describe your perception about CABLE?</td>
<td></td>
</tr>
<tr>
<td>2. How often do you attend CABLE workshops?</td>
<td></td>
</tr>
<tr>
<td>3. During the CABLE workshop, which part do you like most? Could you provide some details with your personal experience?</td>
<td></td>
</tr>
<tr>
<td>4. Do you often communicate with CABLE leaders or other students in relation to your study issues? If yes, could you provide some details with your personal experience?</td>
<td></td>
</tr>
<tr>
<td>5. Did you feel any differences in your study habit before or after you attended the CABLE workshops? If yes, could you provide some details of your personal experience?</td>
<td></td>
</tr>
<tr>
<td>6. In the survey, you mentioned your study difficulties XXX. Did you feel that participating in CABLE workshops helps you overcome these difficulties? If yes, could you provide some details of your personal experience?</td>
<td></td>
</tr>
<tr>
<td>7. In the survey, you mentioned you had taken some strategies to deal with problems. How did you learn about these strategies? Are these strategies effective?</td>
<td></td>
</tr>
<tr>
<td>8. In the survey, your motivation level of study is XXX. Did you feel motivated/demotivated after participating in the CABLE workshop? Could you provide some details of your personal experience?</td>
<td></td>
</tr>
<tr>
<td>9. What is your perception towards student leaders? Do you learn anything from the leader? Do you want to become a student leader in the future? Please give your responses with an example if necessary.</td>
<td></td>
</tr>
<tr>
<td>10. On average, has participating in the CABLE program had a positive/negative influence on your study and social networking? Please give your response with an example if necessary.</td>
<td></td>
</tr>
</tbody>
</table>

This thesis employed the following procedure to collect and process the interview data. Two UOW alumni, who have completed their degrees in the Faculty of Business and have some knowledge of the CABLE program, conducted the interviews. Having alumni conduct the interviews avoided a conflict of interest with the researcher. It is also suggested that their knowledge of the CABLE program improved the richness of the interview data, which depends on “the participant’s ability to reflectively discern aspects of their own experience and to effectively communicate what they discern through” (Polkinghorne 2005, p. 138). Further, the interviews were conducted in the student’s first language, namely Mandarin. Using the students’ first language in the interview brings a naturalness to the interview (Cook 2001), reduces the distance between interviewer and interviewee (Block & Erskine 2012), and creates a comfortable environment for the interview (Krueger & Casey 2002).

A recording device was used during each interview, and the captured audio files were automatically converted into text using the application software provided by the manufacturer of...
the device. The researcher edited the interview transcripts by listening to the audio file and correcting any software conversion errors. After that, the transcript was translated into English via Google Document Translation. The translated transcript was edited by removing machine errors and by taking into account linguistic and cultural contexts (based on the interviewer’s notes), and then rephrased for better thematic analysis. This method is further discussed in the next paragraph. Next, a third UOW alumnus compared the English and Chinese interview transcripts to ensure that the translation was as accurate as possible and understandable to readers from an English-speaking background.

Interview transcription and translation are issues that warrant further discussion. All interviews were recorded, transcribed, and translated into English, firstly by Google Document Translation and then by the researcher. Human error can occur during the translation process, especially where language and cultural differences give rise to misinterpretation (Easton et al. 2000; MacLean et al. 2004; Xian 2008). Language differences may arise due to the linguistic nature of English and Mandarin, since no two languages have an exact correspondence for all words, and each language has unique grammatical systems (Twinn 1998; Xian 2008). For example, tense and personal or gender pronouns do not exist in Mandarin, while these are critical in English. Cultural differences emerge, especially in the use of idioms and proverbs (Xian 2008). Idioms and proverbs are central to the Chinese language, and given that they come from Chinese historical stories, mythologies or complex social phenomena, they may not exist or be easily explained in a Western context. Idioms and proverbs were often used in interviews with Chinese students to express their feelings or experiences. Also, a further complication of translation relates to the translator’s language background and skills (Temple 2013). Crucial to the translation process is the act of contextualising the translated data and producing a response that is comparable with the response of the reader in the original culture (Xian 2008).

In addition, Fasick (2001) argues that a verbatim translation of a recorded audio interview data reduces the value of such data, as the word-for-word reproduction of verbal data overlooks the
fact that human communication has a very inter-subjective nature. Marschan-Piekkari and Reis (2004) describe the contextualised approach of translation, which focuses on context rather than verbal consistency. The costs associated with interview transcription are significant; transcribing a one-hour tape recording requires six to seven hours of work manually (Britten 1995). So in order to minimise costs in this study, the researcher used machine transcription and translation services prior to a final translation. Finally, a third person audited the interview transcripts to ensure additional rigour of the transcription and translation process.

The interview data was examined by a thematic analysis to identify and record patterns within the data (Braun & Clarke, 2006; Braun et al. 2014; Clarke & Braun, 2013). A list of themes was identified by coding the interviewee’s responses and statements into keywords that represented ideas and attitudes towards student engagement. For example, the first interview question addressed student perception of the CABLE program. Four themes were constructed as per interviewees’ responses. All interviewees (10) stated that attending the CABLE workshops helped them review subject topics and content. Thus, the first theme was constructed as “CABLE helps Chinese students to review academic content taught in the subjects”. The CABLE leaders (3 out of 10) also revealed that attending the CABLE workshops inspired them to become CABLE leaders, allowing them to explore their potential. Thus, the second theme was constructed as “CABLE helps Chinese students to develop themselves”. In the third and fourth themes, interviewees mentioned how they knew CABLE. Thus, the third theme and fourth themes were constructed as “Students hear about CABLE via friends or classmates”, “Students hear about CABLE via its social media groups”.

The second interview question asked, “How often do you attend CABLE workshops?”. Nine out of ten interviewees mentioned that they attended CABLE workshops for the subjects they studied. Thus, the fifth theme was constructed as “students will attend CABLE workshops covering their subjects studied in a session”. As a result, the interviewees’ responses were constructed in 25 themes (See Table 7-1 Themes for interview questions for more details.) In total, 25 themes were
constructed. The analysis of interview data was triangulated with the survey data results to provide an in-depth understanding of how attendance at the CABLE workshops impacted student engagement.

5.5 Chapter summary

In summary, this chapter discussed the application of a mixed methods approach to examining the data concerning student engagement and performance. It is suggested that the method is sensitive to the range of data collected from student academic records, CABLE workshop attendance, student survey data, and interview data, and allows for a rich understanding of the student experience. The robustness of the data collection methods (ie. the survey) has been assured with tests of reliability and validity, and to this end several survey items were removed. The interview data was transcribed and translated, again engaging checks along the way to ensure the robustness of data and suitability for thematic analysis. The next chapter expressly addresses the first two research questions with a detailed quantitative analysis of student records and surveys.
Chapter 6: Results from Quantitative Analysis

6.1 Introduction

As outlined in Chapter 5, the first set of data relates to Chinese students’ academic performance, as indicated by the final marks achieved in a selection of subjects from 2011 to 2016. The second set of data was collected via the student engagement survey completed by 205 students enrolled in the Bachelor of Commerce (Accountancy major). The third set of data comprises 10 face-to-face student interviews. Both qualitative and quantitative methods are used to examine the data to address the research questions. First, T-testing is used to examine whether participation in CABLE workshops influences students’ engagement and academic performance. Then, two path models are established to provide details of the direct and indirect impact of psychosocial variables on student engagement and their perceived academic performance, as well as the impact of workshop participation impact on student engagement. Thematic analysis is used to examine the open-ended survey questions and interview data. This chapter presents the results from the quantitative analysis, while the next chapter details the results of qualitative analysis. Chapter 7 also compares the results obtained through the two approaches.

The remainder of this chapter proceeds as follows. Section 6.2 provides an analysis of CABLE attendance, student academic performance, and engagement levels. Section 6.3 uses path analysis to analyse the Likert-scale survey questions and thematic analysis for the open-ended questions. Section 6.4 discusses the results and Section 6.5 concludes the chapter.

6.2 CABLE’s impact on student performance and engagement level

The initial sample included academic performance data on students in nine subjects from 2011 to 2016. These subjects were ACCY111, ACCY112, and FIN111 (first-year subjects), ACCY200, ACCY201, and FIN222 (second-year subjects), and ACCY305, ACCY342, and ACCY312
(third-year subjects). The resulting sample comprises 4,744 student-subject observations. In addition, data was obtained on CABLE workshop attendance with reference to CABLE records. Figure 6-1 splits the total Chinese cohort for each subject into workshop participants and non-participants. For example, of the total of 500 Chinese students who enrolled in ACCY111 over the period 2011-2016, 233 attended CABLE (participants) and 267 did not (non-participants). It should be noted that student attendance was recorded per subject, not per person, and there are situations where a student may have attended multiple workshops in several different subjects in a single session. Moreover, if a student repeated a subject and attended workshops during both attempts in the subject, two separate attendances are registered for the student. Table 6-1 shows the number of workshops delivered by the CABLE program from 2011 to 2016, with attendance in terms of both numbers and percentages.

![CABLE Workshop Participation in Each Subject](chart.png)

*Figure 6-1: B-PAL workshop attendance in each subject over the period 2011 to 2016*

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32 This differs from the total number of records revealed in Table 5-4, namely 5757 records. This latter number was adjusted for instances where workshops not held. For example, CABLE workshops were not run for ACCY111, ACCY112, ACCY200, ACCY305, ACCY342, FIN111, FIN222 in Autumn 2012, for FIN222 in Spring 2012, and for a few subjects offered over summer sessions. Accordingly, the records relating to student performance in these instances were removed, bringing the final number of examined records to 4,744. See Appendix 7 for details.
<table>
<thead>
<tr>
<th>Subject</th>
<th>No. of workshops</th>
<th>Number of Chinese students attending workshops from 2011 to 2016</th>
<th>Rate of participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCY111</td>
<td>11</td>
<td>233</td>
<td>46.6%</td>
</tr>
<tr>
<td>ACCY112</td>
<td>9</td>
<td>253</td>
<td>57.4%</td>
</tr>
<tr>
<td>ACCY200</td>
<td>11</td>
<td>437</td>
<td>51.2%</td>
</tr>
<tr>
<td>ACCY201</td>
<td>10</td>
<td>201</td>
<td>58.9%</td>
</tr>
<tr>
<td>ACCY305</td>
<td>5</td>
<td>218</td>
<td>70.1%</td>
</tr>
<tr>
<td>ACCY312</td>
<td>5</td>
<td>227</td>
<td>72.5%</td>
</tr>
<tr>
<td>ACCY342</td>
<td>5</td>
<td>190</td>
<td>66.0%</td>
</tr>
<tr>
<td>FIN111</td>
<td>12</td>
<td>524</td>
<td>53.5%</td>
</tr>
<tr>
<td>FIN222</td>
<td>10</td>
<td>358</td>
<td>49.9%</td>
</tr>
</tbody>
</table>

Table 6-1: CABLE workshop participants vs. non-participants

Across all of these subjects in the period of study (2011 – 2016), participation in the workshops by Chinese students was generally higher than non-participants, except for ACCY111 and FIN222. Further, Table 6-1 reveals a progressive increase in attendance rates in workshops through the different levels of study (from 100 to 200 to 300 level subjects), suggesting perhaps an increased need for assistance as the difficulty level of the subjects increased. Other reasons for the increased attendance may be related to better awareness of the CABLE program among Chinese students, as well as the word-of-mouth effect of the perceived usefulness of workshop participation.

To determine whether attendance at the CABLE workshops impacted students’ academic performance, tests of difference are used to examine whether differences in academic performance exist between workshop participants and non-participants. Table 6-2 presents the t-test and Wilcoxon test results. The results show that the average mark for workshop participants is higher than for non-participants for each subject. For ACCY111 and ACCY112, the marks of workshop participants are over 20% higher than non-participants; for ACCY200, ACCY201, FIN111, and FIN222, participants’ marks are over 10% higher than non-participants; and for

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33 When conducting the t-test, there are students who attempt the same subject more than once due to failing the subject initially. As the number of these repeat students is small, this thesis assesses these repeat students independently and assumes they have a minimal impact on the results.
ACCY312 and ACCY342 participants’ marks are over 7% higher than non-participants. The t-test clearly shows that workshop participants’ academic performance is statistically significantly higher than non-participants across all subjects. The Wilcoxon test results show there is a statistical difference in the majority of subjects except for ACCY305 and ACCY312. Overall, the test results provide anecdotal evidence that students’ who attended the workshops achieved higher academic outcomes.

<table>
<thead>
<tr>
<th>Subject Code</th>
<th>CABLE Workshop</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Median</th>
<th>Mean Difference</th>
<th>t</th>
<th>z</th>
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</thead>
<tbody>
<tr>
<td>ACCY111</td>
<td>Attend</td>
<td>233</td>
<td>60.064</td>
<td>14.936</td>
<td>61</td>
<td>21.59</td>
<td>6.658***</td>
<td>10.133***</td>
</tr>
<tr>
<td></td>
<td>Not attend</td>
<td>267</td>
<td>49.397</td>
<td>20.086</td>
<td>51</td>
<td>20.36</td>
<td>7.257***</td>
<td>-8.439***</td>
</tr>
<tr>
<td>ACCY112</td>
<td>Attend</td>
<td>253</td>
<td>65.443</td>
<td>13.697</td>
<td>66</td>
<td>20.78</td>
<td>6.449***</td>
<td>-5.749***</td>
</tr>
<tr>
<td></td>
<td>Non-attend</td>
<td>188</td>
<td>54.372</td>
<td>18.340</td>
<td>56</td>
<td>13.79</td>
<td>5.064***</td>
<td>-4.325***</td>
</tr>
<tr>
<td>ACCY200</td>
<td>Attend</td>
<td>437</td>
<td>58.231</td>
<td>17.012</td>
<td>59</td>
<td>13.87</td>
<td>5.705***</td>
<td>-4.341***</td>
</tr>
<tr>
<td></td>
<td>Non-attend</td>
<td>416</td>
<td>51.175</td>
<td>14.437</td>
<td>52</td>
<td>7.95</td>
<td>2.943***</td>
<td>-1.261</td>
</tr>
<tr>
<td>ACCY201</td>
<td>Attend</td>
<td>201</td>
<td>57.985</td>
<td>10.675</td>
<td>57</td>
<td>13.87</td>
<td>5.064***</td>
<td>-4.325***</td>
</tr>
<tr>
<td></td>
<td>Non-attend</td>
<td>140</td>
<td>50.921</td>
<td>15.087</td>
<td>52</td>
<td>13.87</td>
<td>5.064***</td>
<td>-4.325***</td>
</tr>
<tr>
<td>ACCY305</td>
<td>Attend</td>
<td>218</td>
<td>56.725</td>
<td>11.852</td>
<td>57</td>
<td>7.95</td>
<td>2.943***</td>
<td>-1.261</td>
</tr>
<tr>
<td></td>
<td>Non-attend</td>
<td>93</td>
<td>52.548</td>
<td>11.284</td>
<td>54</td>
<td>7.95</td>
<td>2.943***</td>
<td>-1.261</td>
</tr>
<tr>
<td>ACCY312</td>
<td>Attend</td>
<td>227</td>
<td>58.145</td>
<td>11.659</td>
<td>59</td>
<td>7.14</td>
<td>2.502***</td>
<td>-1.865</td>
</tr>
<tr>
<td></td>
<td>Non-attend</td>
<td>86</td>
<td>54.256</td>
<td>13.788</td>
<td>55</td>
<td>7.14</td>
<td>2.502***</td>
<td>-1.865</td>
</tr>
<tr>
<td></td>
<td>Non-attend</td>
<td>98</td>
<td>54.959</td>
<td>12.320</td>
<td>58</td>
<td>9.07</td>
<td>3.747***</td>
<td>-4.321***</td>
</tr>
<tr>
<td>FIN111</td>
<td>Attend</td>
<td>524</td>
<td>59.649</td>
<td>14.249</td>
<td>60</td>
<td>16.61</td>
<td>7.996***</td>
<td>-7.860***</td>
</tr>
<tr>
<td></td>
<td>Non-attend</td>
<td>455</td>
<td>51.154</td>
<td>18.912</td>
<td>54</td>
<td>16.61</td>
<td>7.996***</td>
<td>-7.860***</td>
</tr>
<tr>
<td>FIN222</td>
<td>Attend</td>
<td>358</td>
<td>62.872</td>
<td>13.626</td>
<td>63</td>
<td>11.61</td>
<td>5.705***</td>
<td>-5.372***</td>
</tr>
<tr>
<td></td>
<td>Non-attend</td>
<td>260</td>
<td>56.331</td>
<td>16.912</td>
<td>58</td>
<td>11.61</td>
<td>5.705***</td>
<td>-5.372***</td>
</tr>
</tbody>
</table>

Table 6-2: Comparison of academic performance between workshop participants and non-participants

Note: The significance level is 1%, 5% and 10% for ***, **, and *.

Table 6-3 shows the results of a comparison of engagement levels between workshop participants and non-participants. The workshop participants reported a statistically significant higher level of engagement than non-participants. This result addresses Research Question 1, showing that participation in CABLE workshops positively impacts student engagement levels. This might suggest that, as discussed in Chapter 4, higher student engagement leads to improved academic performance, however, this testing does not explicitly confirm this nor explain why, as only

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34 The two t-test results cannot fully explain why CABLE workshop attendance leads to higher academic performance or a higher level of student engagement as there are limited factors were assessed in the t-test. Factors such as students’ previous qualification, English language result and other factors were not included. Thus, further analysis is required.
workshop participation is included in the tests. Thus, the results of Table 6-2 and 6-3 are anecdotal evidence. Extending on from this preliminary testing, the survey is used to identify whether students perceived their attendance at CABLE workshops did enhance their level of engagement.

<table>
<thead>
<tr>
<th></th>
<th>Participants Engagement</th>
<th>Non-Participants Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>3.369</td>
<td>3.066</td>
</tr>
<tr>
<td>Std dev</td>
<td>0.510</td>
<td>0.297</td>
</tr>
<tr>
<td>n</td>
<td>169</td>
<td>36</td>
</tr>
<tr>
<td>t Stat</td>
<td>2.856***</td>
<td></td>
</tr>
</tbody>
</table>

Note: The significance level is 1%, 5% and 10% for ***, **, and *.

Table 6-3: Difference between engagement level of workshop participants and non-participants

6.3 Survey description and analysis

The survey contains 51 questions. Among these, 47 Likert-scale questions (revised to 33 after the revision process as outlined in Chapter 5) measure the influence of psychosocial variables on student engagement; two multiple-choice questions measure perceptions of barriers to learning and the rationales for participation in the CABLE workshops, and two open-ended questions examine students’ experiences and attitudes towards the CABLE workshops. Overall, 205 valid responses were collected.

6.3.1 Analysis of Likert-scale questions

Table 6-4 provides descriptive statistics on the revised responses to 33 Likert-scale questions, organised in accordance with the factors in Kahu’s framework. Student Engagement is calculated using the average of Interaction and ParticipationII. Among the eight variables (ranging in values from 1 to 5), Motivation has the highest mean of 4.018, Interaction has the lowest of 3.223, and the means of other factors range from 3.313 to 3.681. Further, Motivation has the highest standard deviation of 0.781, Interaction has the second highest of 0.781, and Skills has the lowest of 0.643. Overall, the standard deviation varies from 0.652 to 0.781.
Table 6-4: Descriptive result of survey responses

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Median</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>205</td>
<td>4.018</td>
<td>1.000</td>
<td>5.000</td>
<td>4</td>
<td>0.781</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>205</td>
<td>3.557</td>
<td>1.000</td>
<td>5.000</td>
<td>4</td>
<td>0.652</td>
</tr>
<tr>
<td>Identity</td>
<td>205</td>
<td>3.327</td>
<td>1.000</td>
<td>5.000</td>
<td>3</td>
<td>0.674</td>
</tr>
<tr>
<td>Skills</td>
<td>205</td>
<td>3.500</td>
<td>1.000</td>
<td>5.000</td>
<td>3</td>
<td>0.643</td>
</tr>
<tr>
<td>Interaction</td>
<td>205</td>
<td>3.223</td>
<td>1.000</td>
<td>5.000</td>
<td>3</td>
<td>0.778</td>
</tr>
<tr>
<td>ParticipationII</td>
<td>205</td>
<td>3.404</td>
<td>1.000</td>
<td>5.000</td>
<td>3</td>
<td>0.711</td>
</tr>
<tr>
<td>Student engagement</td>
<td>205</td>
<td>3.313</td>
<td>1.000</td>
<td>5.000</td>
<td>3</td>
<td>0.692</td>
</tr>
<tr>
<td>Perceived academic</td>
<td>205</td>
<td>3.681</td>
<td>1.000</td>
<td>5.000</td>
<td>4</td>
<td>0.705</td>
</tr>
</tbody>
</table>

Three propositions were developed for the path model. Proposition 1 states that workshop attendance moderates the relationship between psychosocial influences and student engagement. Next, bivariate correlational analysis is used to investigate Proposition 2 (i.e., workshop attendance has a positive impact on participants’ perceived academic achievement) and Proposition 3 (i.e., psychosocial influences impact student engagement and their perceived academic achievement) to test the relationship between the dependent and independent variables. The result is shown in Table 6-5. Both Proposition 2 and Proposition 3 are met. A significant positive correlation is observed between any two of the independent variables and two dependent variables. Self-efficacy is positively correlated with ParticipationII ($r = .753$, $p < .01$). Another equally strong and significant correlation exists between Self-efficacy and Skills ($r = .739$, $p < .01$) and between Interaction and ParticipationII ($r = .725$, $p < .01$). All other correlations are significant and moderately strong with the exception of Motivation, which has relatively weak magnitude with other variables. These significant relationships are further investigated using the path model.
<table>
<thead>
<tr>
<th></th>
<th>Motivation</th>
<th>Self-efficacy</th>
<th>Identity</th>
<th>Skills</th>
<th>Interaction</th>
<th>ParticipationII</th>
<th>Perceived Academic Achievement</th>
<th>Student Engagement</th>
<th>Workshop Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>1</td>
<td>.358***</td>
<td>.333***</td>
<td>.389***</td>
<td>.192***</td>
<td>.350***</td>
<td>.433***</td>
<td>.288***</td>
<td>.030</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>1</td>
<td>.501***</td>
<td>.739***</td>
<td>.646***</td>
<td>.753***</td>
<td>.682***</td>
<td>.751**</td>
<td>.089</td>
<td></td>
</tr>
<tr>
<td>Identity</td>
<td>1</td>
<td>.429***</td>
<td>.603***</td>
<td>.656***</td>
<td>.465***</td>
<td>.676***</td>
<td>.210***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills</td>
<td>1</td>
<td>.650***</td>
<td></td>
<td>.643***</td>
<td></td>
<td>.620***</td>
<td>.696***</td>
<td>.060</td>
<td></td>
</tr>
<tr>
<td>Interaction</td>
<td>1</td>
<td></td>
<td>.725***</td>
<td>.533***</td>
<td></td>
<td>.935***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ParticipationII</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>.705***</td>
<td>.922**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Academic Achievement</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.662*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Engagement</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workshop Attendance</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The significance level is 1%, 5% and 10% for ***, **, and *.  
Table 6-5: Bivariate correlation of all variables (N=205)
The path model is an analytical procedure used to capture the correlational and experimental relationship of moderator and mediator variables, as suggested by Baron and Kenny (1986). Two path models are established to test Proposition 1. The first path model is developed based on Kahu’s framework and utilises a mediator variable. This model considers student engagement as the interplay between psychosocial influences and perceived academic achievement (Baron & Kenny 1986). The second path model examines whether participation in the CABLE workshops affects student engagement levels, by considering workshop participation as the moderator variable (Figure 6-2).

Before testing the moderator and mediator effects in the two path models, it is desirable that the moderator variable is uncorrelated with both the predictor and the criterion, in order to provide a clearly interpretable interaction term (Baron & Kenny 1986). From Table 6-5 above, workshop attendance is statistically significantly correlated with identity and student engagement. No correlation is identified between motivation, skills, self-efficacy, and perceived academic achievement variables. Thus, the above conditions are satisfied. Further, it is suggested that four essential steps need to take place before mediation is concluded (Baron & Kenny 1986; Frazier et al. 2004). The first three conditions are already met. For the unmet fourth condition, bootstrap estimation is undertaken.

35 As discussed in Chapter 5, Section 5.4.3 self-reported academic achievement is used in the survey analysis rather than actual academic performance. The 205 survey responses’ actual academic performances are across several subjects. Thus, for each subject, the sample size of academic performances is too small to conduct a test to achieve a reliable result.

36 Firstly, there must be a significant correlation between the predictor variable (e.g., motivation, self-efficacy, skills, and identity) and the dependent or outcome variable (e.g., perceived academic achievement). Secondly, the predictor variable must have a significant proportion of the variance in the mediating variable (e.g., interaction, participation or alternatively student engagement). Thirdly, the mediating variable must have a significant proportion of the variance in the dependent or outcome variable. Finally, the association between the predictor variable and the dependent or outcome variable must be significantly lower after controlling for the variance shared between the mediator and the dependent or outcome variable.

In this thesis, the predictor (motivation, skills, self-efficacy, and identity) and the dependent or outcome variable (interaction, participation or perceived academic achievement) are significantly correlated (see Table 6-5). Thus the first three conditions are well met. However, the fourth test is unlikely to be met. A possible cause is that the variable is not normally distributed, and the sample size is small (MacKinnon et al. 2002). Thus, in order to minimise the inability of performing the fourth test, bootstrap estimation is used to examine the survey data to determine the significance of mediation effects instead of observing the p-value (Mallinckrodt et al. 2006).
6.3.1.1 First path model

Figure 6-2 shows the paths between the variables, where paths a and a’ represent the direct effect from motivation to student engagement and perceived academic achievement, respectively. Paths b and b’, paths c and c’, and paths d and d’ represent the direct effect from self-efficacy, identity, and skills to student engagement and perceived academic achievement, respectively. Path e represents the direct effect of student engagement on perceived academic achievement.

Table 6-6 gives the bootstrap test result, demonstrating that mediation is occurring for the paths a’, b’, and d’, and that it is statistically significant. With the combined result of the direct and indirect effect, student engagement has a partial mediation effect on the relationship between motivation and perceived academic achievement, as well as between self-efficacy and perceived academic achievement. Student engagement has a full mediation effect on the relationship between skills and perceived academic achievement, as the direct effect is statistically insignificant, while the indirect effect is statistically significant. Although the indirect effect between identity and perceived academic achievement is statistically significant, both the p value and the direct effect of identity on perceived academic achievement is statistically insignificant (.081). Therefore, no conclusion can be made on the mediation effect of student engagement between identity and perceived academic achievement. Based on Figure 6-2 and Table 6-6, it can be concluded that psychosocial influences have statistical significance regarding student engagement. Student engagement has a mediation effect between motivation, self-efficacy, skills, and perceived academic achievement, respectively. A similar mediation effect cannot be observed between identity and perceived academic achievement. As a result, it can be established that student engagement mediates the positive relationship between psychosocial influences on perceived academic achievement. The influence of participation in the CABLE workshops on student perceived academic achievement can be indirectly tested by investigating the relationship between workshop participation and student engagement.
Figure 6.2: Diagram of hypothesised relationship

<table>
<thead>
<tr>
<th>Path/effect</th>
<th>Bootstrap with Bias-correction</th>
<th>Direct Effect</th>
<th>Indirect Effect</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lower Bounds</td>
<td>Upper Bounds</td>
<td>( \beta )</td>
<td></td>
</tr>
<tr>
<td>a: Motivation ( \rightarrow ) Stu Eng</td>
<td>-.178</td>
<td>-.002</td>
<td>.046*</td>
<td>-.092*</td>
</tr>
<tr>
<td>b: Self-Efficacy ( \rightarrow ) Stu Eng</td>
<td>.245</td>
<td>.522</td>
<td>.001**</td>
<td>-.373**</td>
</tr>
<tr>
<td>c: Identity ( \rightarrow ) Stu Eng</td>
<td>.276</td>
<td>.499</td>
<td>.002**</td>
<td>.397**</td>
</tr>
<tr>
<td>d: Skills ( \rightarrow ) Stu Eng</td>
<td>.168</td>
<td>.387</td>
<td>.001**</td>
<td>.287**</td>
</tr>
<tr>
<td>a': Motivation ( \rightarrow ) Per AP</td>
<td>.047</td>
<td>.279</td>
<td>.004**</td>
<td>.195**</td>
</tr>
<tr>
<td>b': Self-Efficacy ( \rightarrow ) Per AP</td>
<td>.244</td>
<td>.567</td>
<td>.001**</td>
<td>.308**</td>
</tr>
<tr>
<td>c': Identity ( \rightarrow ) Per AP</td>
<td>-.014</td>
<td>.253</td>
<td>.081</td>
<td>-.006 (NS)</td>
</tr>
<tr>
<td>d': Skills ( \rightarrow ) Per AP</td>
<td>.048</td>
<td>.339</td>
<td>.008**</td>
<td>.104 (NS)</td>
</tr>
<tr>
<td>e: Stu Eng ( \rightarrow ) Per AP</td>
<td>.107</td>
<td>.505</td>
<td>.004**</td>
<td>.307**</td>
</tr>
</tbody>
</table>

Note: Stu Eng = student engagement; Per AP = perceived academic achievement. Direct effect and indirect effect are the standardised results.  * \( p < .05 \); ** \( p < .01 \); NS = Not significant.

Table 6-6: Illustration of the Bootstrap Method to Test Significance of Mediation Effects (N=205)
6.3.1.2 Second path model

Figure 6-3 illustrates the revised path model with workshop attendance. The influence of the B-PAL workshops on student perceived academic achievement can be indirectly tested by investigating the relationship between workshop participation and student engagement. Four tests of simple slopes analysis\(^{37}\) are conducted, respectively, for each of the four psychosocial influences to examine whether workshop participation has a moderation effect on student engagement. Table 6-7 demonstrates the simple slope analysis and bootstrap result for each variable.

\(^{37}\) For each test, the *pick-a-point* approach is adopted to pick a point at low, medium, and high value on the moderator and focal predictor (psychosocial influences). Then the simple slope for the focal predictor on the outcome variable at a low, medium, and high level of the moderator is calculated. The simple intercepts at a low, medium, and high level of the moderator are also calculated. Next, conditional indirect means (CIE) based on AMOS estimates of means and standard deviation and regression slopes are calculated. The bootstrap-based procedures are adopted to generate bootstrap errors and confidence intervals associated with the simple slopes (Preacher et al. 2007). The researcher also applied an index of moderated mediation (IMM) developed by Hayes (2015) to examine the moderated mediation effect.
<table>
<thead>
<tr>
<th>Bootstrap at 95 Percentile</th>
<th>On Motivation Standardised Estimates</th>
<th>On Self-Efficacy Standardised Estimates</th>
<th>On Identity</th>
<th>On Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS-Non-participant</td>
<td>-.028 (-.319 to .238)</td>
<td>.700** (.319 to 1.156)</td>
<td>.010 (-.065 to .859)</td>
<td>.062 (.152 to .932)</td>
</tr>
<tr>
<td>SS-Participants</td>
<td>.216** (.067 to .385)</td>
<td>.761* * (.610 to .911)</td>
<td>.010 (.461 to .776)</td>
<td>.010 (.519 to .824)</td>
</tr>
<tr>
<td>Intercept Non-participant</td>
<td>3.177</td>
<td>.662</td>
<td>1.990</td>
<td>1.449</td>
</tr>
<tr>
<td>Intercept Participants</td>
<td>3.477</td>
<td>.855</td>
<td>2.139</td>
<td>1.698</td>
</tr>
<tr>
<td>CIE-Non-participants</td>
<td>-.015 (-.181 to .147)</td>
<td>.244** (.106 to .487)</td>
<td>.010 (-.044 to .592)</td>
<td>.062 (.066 to .432)</td>
</tr>
<tr>
<td>CIE-Participants</td>
<td>.128** (.040 to .231)</td>
<td>.265** (.149 to .417)</td>
<td>.010 (.267 to .568)</td>
<td>.010 (.200 to .438)</td>
</tr>
<tr>
<td>IMM</td>
<td>.143** (.014 to .294)</td>
<td>.162</td>
<td>.143</td>
<td>.314</td>
</tr>
</tbody>
</table>

* p < .05; ** p < .01

Table 6-7: Simple Slope analysis and the Bootstrap result
For the Motivation variable, the regression slopes are -0.028 and 0.216 for participants and non-participants, respectively, with the results being statistically significant. The intercept for SS-non-participants is 3.177 and for SS-participants is 3.477. The conditional means of participants and non-participants for low, medium, and high motivation level are illustrated in Figure 6-4, which compares the relationship between motivation and student engagement for workshop participants and non-participants. The slope for Motivation is positive, which demonstrates that workshop participants with a high level of motivation exhibit a high level of student engagement. This result shows that motivated students display a high level of student engagement after attending B-PAL workshops.

Figure 6-2 shows that motivation has a negative relationship with student engagement (path a,
.09). By separating participants and non-participants using simple slope analysis, it becomes apparent that the overall negative relationship in Figure 6-2 is caused by the negative relationship between non-participants’ motivation and student engagement offsetting the positive relationship for participants. Hence, the positive impact of workshop participation on student motivation can be traced.

The CIE for non-participants (-.015) is statistically insignificant, while the CIE for participants (.128) is statistically significant. Therefore, IMM 38 is used to determine whether workshop participation moderates student engagement due to the contradicting results identified in CIE. The IMM (.143) is significant, indicating that workshop participation moderates the indirect effect of motivation on student engagement.

**Self-efficacy**

For Self-efficacy, the regression slope for SS-non-participants is .700 with an intercept of .662 and for SS-participants is .761 with an intercept of .855. The bootstrap percentile demonstrates that both slope estimates are statistically significant. The CIE results reveal a statistical significance of .244 for non-participants and .265 for participants, respectively. Thus, workshop participation moderates the indirect effect of self-efficacy on student engagement. Figure 6-4 illustrates that students with a high level of self-efficacy demonstrate a high level of student engagement for both workshop participants and non-participants. However, workshop participants exhibit a more positive slope than non-participants.

**Identity**

For Identity, the slope of the regression for SS-non-participants is .356 with an intercept of 1.990 and for SS-participants is .606 with an intercept of 2.139. The bootstrap percentile demonstrates

---

38 IMM, the index of the linear relationship between the indirect effect and moderator variable, is suggested by Hayes (2015) to test the moderated mediation effect when there is a conflict between CIE results. This is due to the insignificance of CIE, which indicates that the moderation effect is mediated by the mediator (Hayes 2015, 2017).
that both slope estimates are statistically significant. The CIE for non-participants (.230) is statistically insignificant, while CIE for participants (.379) is statistically significant. Further, the IMM (.162) is statistically insignificant, indicating that there is no evidence for the moderated mediation effect.

**Skills**

For Skills, the regression slope for SS-non-participants is .473 with an intercept of 1.449 and for SS-Participants is .699 with an intercept of 1.698 respectively. The bootstrap percentile demonstrates that both slope estimates are statistically significant as well as both CIE (CIE is .214 for non-participants and .302 for participants). Thus, workshop participation moderates the indirect effect of skills on student engagement level. Figure 6-4 illustrates that students with a high level of skills demonstrate a high level of student engagement for both workshop participants and non-participants. However, workshop participants exhibit a more positive effect than non-participants.

6.3.2 **Analysis of multiple choice and open-ended questions**

Question 48 examines the challenges and difficulties faced by Chinese students when studying at an overseas university. Question 49 investigates the factors that influence a student’s decision to attend the CABLE workshops and their perception of the workshops. Students were able to choose from a range of possible responses for these two questions, as well as selecting more than one response. Figures 6-5 and 6-6 show the student responses for these two questions, respectively.
Figure 6-5: Responses for Q48

For Question 48, responses are categorised into three main issues, including language-related, learning and teaching related, and other issues. Regarding language issues, 45% of the survey participants identified a language barrier in the academic environment and 25% in the social environment. Participants also reported that they experience problems with academic writing and are unable to understand and communicate with other students and staff.

For learning and teaching-related issues, 30% of participants expressed that they are unable to understand the content taught and have difficulties in understanding terminology. Due to a lack of sufficient fundamental knowledge of the discipline, participants were often overwhelmed by the amount of content. In addition, participants found it difficult to apply the subject matter to real-life contexts due to the subject design and learning style.

Participants also reported other issues. For example, 17% of the participants have issues with time management in relation to assessment completion and study time, and 8% reported stress due to
financial pressures.

<table>
<thead>
<tr>
<th>Responses for Q49</th>
</tr>
</thead>
<tbody>
<tr>
<td>60% I want to strengthen my understanding of academic content by using Chinese interpretations or Chinese examples</td>
</tr>
<tr>
<td>59% I have had previous experience with CABLE and found it improved my academic performance</td>
</tr>
<tr>
<td>57% I think CABLE attendance will better prepare me for an exam and thus improve academic performance</td>
</tr>
<tr>
<td>51% I want to pass the subject</td>
</tr>
<tr>
<td>40% My friends suggested it</td>
</tr>
<tr>
<td>64% Improve my understanding of academic content.</td>
</tr>
<tr>
<td>57% Facilitate my understanding of the material (quicker than I could have done by myself)</td>
</tr>
<tr>
<td>57% Provide me with a systematic method to prepare for exams.</td>
</tr>
<tr>
<td>50% Improve my ability to respond to questions in the exam.</td>
</tr>
<tr>
<td>45% Improve my exam techniques.</td>
</tr>
</tbody>
</table>

Figure 6-6: Responses for Q49

Question 49(a) investigates the factors that influence students’ decisions to attend the CABLE workshops and their perception of the workshops. Among the 205 participants, around 60% reported that attending the CABLE workshops strengthened their understanding of academic content, primarily due to the use of Chinese interpretations or examples in the Chinese context. It appears that this went on to improve participants’ academic performance (59%), enabled better exam preparation (57%), and consequently helped them pass the exam (51%).

For Question 49(b), 64% of the participants describe that attending the CABLE workshops improved their understanding of academic content. 57% of the participants found that after they had attended CABLE workshops, they could learn quicker than before, and that attendance had helped them develop a more systematic method for exam preparation. Participants also expressed that their ability to respond to exam questions (50%) and exam techniques was improved.
Question 50 asked participants to outline the aspects of the CABLE program that they liked the most, and Question 51 explored aspects for improvement. A total of 82 responses were collected for Q50 and 58 for Q51. Responses were in both English and Chinese. The responses in Chinese were translated using Google Translator and then verified by both the researcher and an independent person (similar to the interview transcription and translation process as discussed in Chapter 5). The responses were categorised into different themes and are shown in Figure 6-7. Some responses described multiple themes and are thus counted a number of times.

For Question 50, the responses were categorised into six themes including academic content, language, exam preparation, identity, general, skills, and role model. Among the 82 responses, 70% of the participants (57) commented that the workshops helped them to gain a better understanding of the subject content. 37% (30) reported that it is easier to learn or review complicated concepts in a subject by using their native language and examples drawn from a Chinese context. 13% (11) considered that attending the workshops helped with exam preparation and technique. 13% (11) responded that they felt more relaxed and comfortable when studying with a group of students from the same ethnic background. 12% (10) of participants commented
that the notes/practice and questions/PowerPoint slides from the CABLE workshops were beneficial to their study, and that they appreciated the learning experiences shared by the student leaders. Also, 10% (8) of participants expressed that their workshop experiences were good and as such did not provide specific feedback about the workshops.

Question 51 collected responses regarding how the CABLE workshops could be further improved. A total of 58 responses were collected and were categorised into five themes. 38% (22) of the participants requested more workshops in different disciplines and expressed their willingness to attend these workshops. Around 21% (12) of participants commented that workshops could provide more detailed content and advice regarding exam tactics. 12% (7) of the participants suggested that more practical questions could be presented in the workshops to help students gain a better understanding of the content. 5% (3) of the participants indicated that they found the workshops unsatisfactory, primarily due to poor content explanation by the leaders and provide feedback on improving workshops. 24% (14) commented that they did not have any negative feedback.

To sum up, responses to Question 48 reveal the challenges faced by Chinese students, particularly those relating to language problems and learning barriers. The responses to Question 49 suggest that for less than half of the survey participants, their motivation for participating in the workshops was to pass the subject. This may suggest that they genuinely want to learn in a meaningful way, and that the CABLE program is not a quick fix in students’ eyes. Rather, they consider it to be an environment that facilitates independent learning, and where they are able to tackle the language barrier through the effective use of sociocultural pedagogies. The responses to Questions 50 and 51 demonstrate that the participants desire more workshops and expect higher content and quality. This latter group of questions explore Chinese students’ general perceptions regarding their learning barriers and overall experiences in the CABLE workshops. In a nutshell, the CABLE 39CABLE delivers more B-PAL workshops in accounting and finance disciplines due to leaders’ background, and just a handful of B-PAL workshops in management, marketing, economics, and other disciplines.
workshops are seen as valuable opportunities to develop understanding, gain problem-solving skills, and enhance exam preparation. Several students provided more detailed responses and indicated a willingness to participate in the follow-up research, and as such they were invited to participate in an interview (discussed in the next chapter).

6.4 Discussion

The findings for self-efficacy reinforce findings from previous studies (for example, see Linnenbrink & Pintrich 2003; Sun & Rueda 2012; Zimmerman 2000), namely that self-efficacy is a key influential factor in student engagement. Participation in CABLE workshops magnifies this relationship. By observing CABLE leaders, Chinese students are able to develop their self-efficacy with reference to co-cultural peers and by replicating positive behaviours (Bandura 1977; Beatson et al. 2018). As a result, their level of engagement is further improved.

The findings for skills is as expected, as students with better academic skills generally are more engaged (Kahu 2013). Workshop participation moderates the stated effect, as leaders frequently demonstrated advanced academic skills in the workshops for observation by the participants. However, the responses to the survey questions did not capture whether students actually pick up additional skills in the workshops. Therefore, this enquiry was taken to the interview process.

Kahu’s framework suggests that identity is a psychosocial influence of student engagement, but no moderated mediation was found in an examination of the survey results in this thesis. However, responses to the open-ended questions suggested that, on the contrary, workshop participants showed a strong attachment to the Chinese community. This unexpected finding may be due to the different perceptions of identity held by the Chinese students. The reason for the difference in perceptions may be because the concept of identity used by Kahu relates to the sense of being, whereas for a student studying in a foreign environment, it may relate to their belongingness with friends from the same ethnic background rather than those from the foreign country. As Glass and Westmont (2014) suggest, international students’ acculturation and academic performance can be
negatively impacted when they have a low sense of belonging. When a Chinese student expresses a strong attitude toward identity (focused on the Chinese ethnic background), this could mean that they have a lower sense of belongingness when they are outside of that context and studying overseas. Given these mixed results, the concept of identity is further examined in the interview process, and is detailed in the next chapter.

6.5 Chapter summary

This chapter presented the results of statistical tests conducted to address RQ1 and RQ2. The t-test results show that students who participated in the CABLE workshops exhibit a higher level of engagement and achieved better academic outcomes. Such anecdotal evidence addresses RQ1 and confirms that participation in CABLE workshops positively impacts on student engagement and academic performance.

The two path models employed in this chapter demonstrate that student engagement mediates the relationship between motivation, self-efficacy, skills, and perceived academic achievement. Workshop participation also has a moderating effect on the relationship between motivation, self-efficacy, skills, and student engagement level. These findings support the contention that motivation, self-efficacy, and skills are influential factors on student engagement levels. The results show that workshop participation improves students’ motivation, self-efficacy, and skill levels, hence improving their student engagement level and perceived academic achievement. This directly addresses RQ2.

Some issues were identified during the quantitative analyses that warrant further investigation. First, the question arises as to whether CABLE participants learnt any additional skills from the workshops. Responses to such a question are important for evaluating the effectiveness of the workshops in terms of the facilitation of independent learning. One of the philosophies of CABLE’s B-PAL approach is to transfer positive traits and learning skills from the student leader to newer students. Second, students provided very brief responses to the survey questions
regarding their attitude and perceptions of the CABLE program. Anecdotally, this is not an uncommon practice for Chinese students when responding to survey questions, however, more insight into these issues was desired.

The next chapter takes up these and other issues, through an examination of the student interviews. Such an examination provides a more nuanced understanding of the CABLE program, and provides insight that can be used for future offerings of CABLE workshops and indeed other similar programs in universities.
Chapter 7: Qualitative analysis and results

7.1 Introduction

The previous chapter utilised quantitative analysis of student marks and survey responses to arrive at responses to RQ1 and RQ2. This chapter draws on a qualitative thematic analysis of student interviews to inform the response to RQ3, namely what motivates Chinese students to participate in the CABLE program, along with their perceptions of the program. Further, this chapter compares both the quantitative and qualitative results in order to identify consistencies or inconsistencies and triangulate research results from Chapter 6.

This chapter proceeds as follows. Section 7.2 outlines the steps used in processing the interview data. After transcribing and translating the interview data, four important themes were identified. Sections 7.3 to 7.6 provide a detailed discussion of each identified theme. Section 7.7 describes the key implications of the findings and Section 7.8 summarises the chapter.

7.2 Interview data and transcription

Ten face-to-face interviews were conducted by two UOW alumni who had completed their degrees in the Faculty of Business and who have knowledge of the CABLE program. During the survey period, sixteen students\(^{40}\) expressed their interest in the follow-up interviews and a random selection\(^{41}\) was conducted to arrive at ten interviewees\(^{42}\). Among these ten interviewees, 40% were male and 60% were female. At the time of the interviews, 30% of students were enrolled in their first year, 20% were enrolled in their second year, and 50% were enrolled in their third year. Out of the ten students, three also acted as student leaders and were involved in CABLE events.

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\(^{40}\) Due to limited time, a second round of interviews was not planned for. Sixteen students expressed interested in participating in the interview process. As the interviews were conducted in Chinese, and each interview lasted 30 to 40 minutes, transcription and translation of the interviews was time-consuming. Therefore, 10 out of 16 participants were selected randomly for interviews.

\(^{41}\) The interviewees were numbered from one to sixteen, and a random selection of ten of these was generated through excel.

\(^{42}\) Note that of the ten interviewees, three had progressed from being CABLE participants to CABLE leaders. Inclusion of this latter group provides scope for different perspectives to emerge, and reinforces the effectiveness and commitment of students to the program.
and the delivery of workshops. Of these, one leader was enrolled in their second year, and two of them were enrolled in their third year.

Semi-structured interviews with open-ended questions were conducted with the student volunteers in order to explore their perceptions and attitudes towards the CABLE program. Interview questions aimed to find out more about their motivations to participate in the CABLE program, and their experiences and perceptions of the workshops. Each interviewee’s survey responses were also used as a reference when conducting the interviews. The interviews were framed around ten open-ended questions. Q1 and Q2 involved student perceptions of the CABLE program, while Q3 – Q10 examined the interviewees’ self-perceptions of motivation, skills, identity, and self-efficacy. In some instances, the interviewer sought clarification of the interviewees’ survey responses to shed further light on the issue under discussion. The interview transcripts were transcribed and translated as set out in chapter 5, and responses analysed using thematic analysis.

Thematic analysis identifies and records patterns within data (Alhojailan 2012; Braun & Clarke 2006). In this thesis, thematic analysis of the interview transcripts not only identified patterns but also determined whether responses were consistent with the results from the survey. In addition, the thematic analysis provided a more nuanced explanation of how participation in the CABLE program enhanced engagement in the form of motivation, skills, self-efficacy, and identity, as per Kahu’s (2013) framework. In particular, additional insight was sought into the relationship between identity and student engagement levels, given the weak results for this relationship in the survey.

Following Braun and Clarke’s thematic analysis model (see Braun & Clarke, 2006; Braun et al. 2014; Clarke & Braun, 2013), a list of themes was identified by coding interviewees’ responses

43 The survey was anonymous. Only those who expressed their interest in participating in follow-up interviews were asked to leave their email address for further contact. The process was approved in the ethics application.
and statements into keywords that represented ideas and attitudes towards student engagement.

Table 7-1 below shows the identified themes and the frequency of each theme.
<table>
<thead>
<tr>
<th>Theme</th>
<th>Non-Student Leader</th>
<th>CABLE Leader</th>
<th>Total Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>CABLE helps Chinese student to review academic content taught in subjects</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>2</td>
<td>CABLE helps Chinese student to develop themselves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Students hear about CABLE via friends or classmates</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>4</td>
<td>Students hear about CABLE via its social media groups</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Q2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Students will attend CABLE workshops covering their subjects studied in a session</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>6</td>
<td>Students attend CABLE workshops in order to achieve better exam results</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>7</td>
<td>Students attend CABLE workshops in order to prepare for the final exam</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>8</td>
<td>Students attend CABLE workshops in order to better understand a subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Students like CABLE workshops as it demonstrates problem solving questions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Students like CABLE workshops as it helps to summarise key knowledge and contents</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>11</td>
<td>Students sometimes rely on CABLE workshops to prepare for exams</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Q3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Students sometimes discuss study-related problems with CABLE student leaders</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>13</td>
<td>Students sometimes discuss study-related problems with other Chinese students</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>14</td>
<td>Students sometimes discuss study-related problems with teaching staff members</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Q4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Students change study behaviour after attending CABLE workshops</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Q5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Students have a learning difficulty caused by the language barrier</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>17</td>
<td>Students have a learning difficulty caused by ineffective lecture/tutorial participation</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>18</td>
<td>Students have a learning difficulty caused by inadequate writing skills</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Q6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Students attempt to learn academic content by translating them into Chinese</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>20</td>
<td>Students attempt to learn academic content by memorising them</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Q7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Students feel motivated after attending CABLE workshops</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Q8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Students appreciate CABLE student leaders’ ability and attempt to learn from them</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Q9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>CABLE helps students to improve their study skills</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>24</td>
<td>CABLE helps students to improve their social skills</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Q10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Students compare CABLE with PASS</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>

Table 7-1 Themes for interview questions
The first step of the analysis was to identify and code the interview transcripts, in which case 25 themes were identified. A higher frequency of occurrence indicated that the interviewees shared a consistent perception of this theme. Among these 25 themes, theme 1 and 23 were mentioned by all interviewees and themes 5, 15, 21, and 22 were mentioned by nine interviewees. Some themes such as 2, 9, 14, and 20 demonstrated a low frequency. Although interviewees had different characteristics such as gender and enrolment status (first, second, and third years of enrolment), no significant differences were identified between the interviewee responses in terms of these characteristics. However, differences in responses were identified between student leaders and non-student leaders. For example, only CABLE student leaders responded to theme 2, while no student leaders responded to themes 3, 4, 6, 7, 11, 19, 20, and 25. At this point, these themes were considered to contain important analogies or messages worthy of further consideration, perhaps to identify different experiences and perceptions between participants and CABLE student leaders.

The next phase of analysis was to revise the themes in the search for evidence that supported or refuted Kahu’s (2013) framework. For example, themes one, five, six, seven, eight, nine, ten, twenty-three and twenty-four concerned the helpfulness of CABLE workshops in terms of student engagement and academic performance, as well as positive experiences in CABLE workshops. Thus, these themes were condensed into one essential theme (Essential Theme One – Why does CABLE work?). In this way, the original 25 themes were reduced into four essential themes. The first essential theme related to why participants end up with stronger academic outcomes than the non-participants. The second essential theme relates to the learning challenges experienced by Chinese students, and explores the CABLE program’s effectiveness in minimising these difficulties. This relates to the student psychosocial influences of motivation and skills as outlined in Kahu’s framework. The third essential theme relates to the attitude of Chinese students to institutional programs, especially in terms of student engagement and the psychosocial influences outlined in Kahu’s framework. The fourth essential theme relates to the personal development experienced by student leaders, as revealed through the different interview responses by them and
the other student participants. This theme relates to student engagement and social satisfaction of Kahu’s framework. Each of these themes is explored in more detail in the following sections.

7.3 Essential theme one – Why does CABLE work?

The first essential theme points to the positive relationship between students’ participation in the CABLE program and their academic performance. This supports the survey results. The first three interview questions asked the students to describe their perception of the CABLE program, how often they attended the workshops, and what motivated them to attend. Their answers reveal positive attitudes and assessments of the CABLE program, with explanations of the perceived educational benefits of attending.

All ten interviewees perceived CABLE as a program capable of helping Chinese students review academic content taught in the subjects. The interviewees’ perceptions were consistent with one of the program’s aims, namely to provide academic support to Chinese students, with a clear focus on the educational benefits. However, CABLE also aims to provide social support to Chinese students, but this was not a dominant feature of their interview responses. There are several potential reasons for this. It is likely that Chinese students have already formed social groups among friends and/or classmates from the same country before they attend the CABLE workshops and other events, and although the CABLE program provides opportunities for social interaction, it is not necessarily the central focus of Chinese students’ social life. It is very common for international students to form close relationships with members of their own cultural group as a means of reducing culture shock and gaining social satisfaction (Bordia et al. 2015; Mesidor & Sly 2016). The majority of interviewees mentioned that their real-life and online friends provided them with information about the CABLE program, which suggests that a number of socio-cultural groups already exist, both on and off-campus for Chinese students, and that communication among students and groups is frequent. From the institution’s perspective, it is difficult to measure the personal communication and engagement among Chinese students, as most of them use Wechat as their primary social media platform. CABLE utilised the group function chat in Wechat
to connect newly enrolled and senior students, and Chinese students used it to communicate with other individuals. This kind of communication remains largely invisible to institutions and educators.

Although the interview responses demonstrate that CABLE is not a central part of the interviewees’ social life, it appears to form an important element of their study, and thus facilitates a stronger Chinese student community and a positive experience for the students involved. This is consistent with the findings of Montgomery and McDowell (2009), who state that a strong international student community provides a positive and active international student experience, especially when the students become the providers of social care and knowledge to other students. Further, as suggested by Urban and Palmer (2014), this type of international student community can be an effective resource for higher education providers who are trying to enhance their institution’s internationalisation process.

Although both Montgomery and McDowell (2009) and Urban and Palmer (2014) conclude that international students’ social exchanges within their own cultural groups can lead to a better university experience if conducted in an appropriate and positive way, there is no evidence to support the notion that this could then be translated into improved academic performance. In contrast to this, the bivariate correlational analysis of the current survey results shows that identity has a significant impact on student engagement and perceived academic achievement (see Table 6-5). However, no moderating and mediating relationship exists between identity, workshop participation, and student engagement in later path analysis (See Table 6-7). Based on interviewees’ responses, there is a strong willingness to participate in the CABLE workshops. Thus, this thesis demonstrates that the CABLE program establishes a relation between positive social exchanges and perceived academic performance. 90% of the interviewees indicated that they attended every CABLE workshop that was available for their subjects, based on the perceived benefits of attendance. Despite being at the university for a relatively short period of time, the first-year students had already attended several workshops at the time of the interviews,
and the senior students had generally attended more than ten workshops across the period of their enrolment. Specifically, Interviewee No. 2 said that “if there is (a workshop), I will definitely attend. I will definitely go because it is very useful”. This theme emerged from the group of interviewees. However, individual explanations varied and are explored in the following.

The first perceived benefit was related to exam performance. Four interviewees (all non-leader students), clearly stated they attended CABLE workshops to achieve better exam results, and six (also non-leaders) indicated that Chinese students might rely on attending the CABLE workshops to get a better understanding of the subject and pass the exams. These results point to the positive aspects of workshop attendance, but also raise some concerns, such as that raised by Xu (2016). Xu suggests that students’ reliance on CABLE workshop for exam preparation may be unhelpful in their long-term development of study practices. On the positive side though, CABLE’s perceived effectiveness in improving student academic performance reinforces the results of the survey, which show a significant difference between the academic outcomes of workshop participants and those of the non-participants. The favourable perception is also related to the Chinese students’ social networking habits, where senior students pass on useful information to other students. Interviewee No. 3 stated:

*It is actually that Chinese people are more united in school, so basically what activities are Chinese, and any news will be notified first. Therefore, if this type of activity of this group type is organised, it will definitely be known by the Chinese [Google Translation]*

In fact, the Chinese are united in the university. If there is an event for Chinese, or there is some news, people will be notified quickly. It is certain that news about any organised Chinese group event would be passed on through the Chinese community [Edited translation]44

Thus, the benefits of participating in the CABLE workshops are likely to be spread by word of mouth between Chinese students, given the dependency on the Chinese community on this informal network to receive information. This explains the overall growing popularity of the

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44 The edited translation is edited by the researcher and audited by a third person. See Chapter 5, Section 5.4.5 for details.
CABLE program, as shown in the growth in attendance (refer to Section 6.2, Figure 6-1). Students are encouraged by their friends to attend CABLE workshops on the basis of perceived benefits such as improved academic performance, which is consistent with the responses to the survey open-ended questions in the survey. Countering this positive perception of the program, though is the unrealistic expectation that CABLE attendance will ensure success in exams. Half of the interviewees proposed that some Chinese students hold the perception of attending the relevant CABLE workshop help them to pass an exam. Concern over this perception has been expressed previously (Cui et al., 2015), who notes the potential of this expectation to undermine the positive aspects of attendance, and to create a false impression that workshop attendance is a substitute for formal teaching and self-study (Cui et al., 2015). Thus, the CABLE leaders clearly emphasise the importance of formal teaching hours and ensure that participants see CABLE as a supplemental instruction program (Cui et al., 2015).

Further justification of the effectiveness of the CABLE program in terms of academic performance is provided in the responses to questions 8 to 10. Six out of the interviewees claimed that after attending the CABLE workshops they had a better understanding of a subject. Five interviewees stated that what they liked most about the CABLE workshops was that they helped them to summarise the knowledge and content of the respective subjects. Surprisingly though, only two interviewees liked problem-solving demonstrations. One possible explanation is that the bilingual instruction provided by CABLE leaders may be more relevant for the acquisition of knowledge (conceptual in nature) than for the demonstration of skills (problem-solving type activities). Or, another simple explanation is that the interviewees attended workshops did not have problem-solving demonstrations. The important point to highlight is that an understanding of why questions need to be done in a particular way seemed to be important for the Chinese learners, who typically come to Australia with a different educational philosophy. This is also consistent with survey findings, wherein Chinese students experience a different learning and teaching philosophy (see Q48). The following provides some specific responses from interviewees to explain this theme. Interviewee No. 2 provided his view on the program’s useful
aspects:

For example, if some subjects are more biased toward theory, I think it will be easier for me to understand after I have spoken through the teacher. Then if it is a calculation, if the teacher does it with you, you will be more impressed.45 [Google Translation]

For example, I will understand the content of a theoretical subject better after the workshop leader went through it. If it is a calculation type of question, my impression will be deepened after the leader demonstrated the solving process. [Edited translation]

This student also emphasised that he does not see the CABLE workshop as a “quick fix”, despite the reliance of some students on the program to prepare for exams (as mentioned above).

When you attend the lecture, your favourite thing is that the teacher tells his own experience and some of his insights and experiences, and tells us through his way, so I think it is better to tell you the answer directly and understand it more easily. [Google Translation]

When attending a workshop, the thing I liked most is the student leader uses his own experience and understanding to explain content to us. This is better than giving the answers directly. I can understand (the content) more easily. [Edited translation]

Interviewee No. 4 expressed a similar attitude, explaining why the demonstration is not enough and they expect to learn more from the workshop:

Yes, but in fact, if it [the topic] is a more conceptual one, it is still more like the teacher explains each concept / then the problem is a lot of it, that is, especially our accounting is a lot of questions which is similar (Chinese slang is used here, see footnote 41 for details) then practice, then you can do anything else after question, on the same type of problem ah, you’ll be able to understand it is very good. [Google Translation]

Yes, I really liked (the workshop) because the student leader explains every concept. As the accounting questions often differ in form but not in content47, once I grasp a lot of understanding of the problem, I can do almost any other question. So that is a good understanding (of the topic). [Edited translation]

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45 In most instances, student quotations are shown first as the Google translate version, followed by the edited translation where necessary.
46 It is very common for CABLE workshop participants to address the student leaders as “Laoshi”, which is “teacher” in Chinese. This does not mean that the student leaders are seen as teachers, but rather to show their respect.
47 The interviewee used a Chinese slang expression “换汤不换药”. The verbatim translation is “changing the liquid without replacing the drugs” (in traditional herbal medicine). It metaphorically describes a superficial change. The student is referring to accounting practice questions. There are many questions on the same topic, but the only difference is the form of the questions. The English equivalent is similar to “the mixture as before”. 

123
Interviewee No. 5 explained that better understanding is achieved by connecting academic content with examples relevant to the Chinese context:

*Ah, I feel, I feel (helpful), right, especially in terms of theoretical understanding. Sometimes it may be that he sometimes said that they would use some relevant examples in China, and when combined with that theory, and then this helps us to understand better, and sometimes it may be for what happened in foreign countries, especially in those cases, we are not very clear, or it may only be relevant in the kind of article, but that is sometimes the CABLE seniors, they will, link to what happened in China. Just make a related connection and let you understand better.* [Google Translation]

What I feel is helpful, especially in understanding theoretical concepts, is the student leader will use relevant examples in China, and then integrates with the theory, this helps us to understand better. We are not very familiar with cases that happened in foreign countries, or the scenarios [that] only appeared in an article⁴⁸. Sometimes the CABLE leader will connect [these cases/scenarios] to things that happened in China. This establishes a relationship, make me understand /the content/ better. [Edited translation]

This theme shows why CABLE improves student academic performance. First, although accounting education is “first-job vocational in nature” (Demski 2007), Chinese students find the subjects to be conceptual and theoretical, not simply practical. Also, despite the difficulty that Chinese students have in understanding the concepts, they know it is important to be able to do so. The CABLE workshop leaders take a different approach to that typically adopted by subject lecturers. By offering personal experiences and cultural interpretations of Western theoretical and philosophical concepts, the Chinese students are better able to understand these important concepts. This reinforces the benefits of socio-cultural pedagogy (Cochrane et al. 2014; Kikkawa et al. 2019) and PAL (Paloyo et al. 2016b; Van Der Meer & Scott 2009; Ward & Lee 2005). By effectively adopting socio-cultural pedagogy and PAL, the CABLE workshops help the participants to develop a better understanding of academic content, and contribute to higher academic performance.

### 7.4 Essential theme two – Chinese students’ perceived learning challenges

Questions 6 and 7 investigate the learning challenges experienced by Chinese students and how

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⁴⁸ The student is likely referring to an academic reading.
they have tried to overcome them. Three minor themes emerged from the responses, namely language barriers (7 out of 10); ineffective lecture and tutorial participation (8 out of 10); and poor writing skills (6 out of 10).

Interviewee No. 2 specifies what he means by “language barrier” and how attending a CABLE workshop can help him overcome this:

*The language barrier is not that I can’t understand what the lecturer is saying, but that I don’t understand what he wants to express. The Chinese way of thinking of and the foreigners’ way of thinking are different, therefore what is very clear for the lecturer may not be clear for me...When attending the CABLE workshop, the leader understood the content then told me. I think since we are all Chinese, I think that I understand the content better (in the workshop).* [Google Translation]

I know what the lecturer said literally, but I do not fully understand the significant meanings. There is a difference between how a Chinese person thinks and how a foreigner thinks. Therefore, although a lecturer thinks he explained the content clearly, I might still feel confused. After I attended the CABLE workshop, I learnt the content better as the leaders understood the content better and then helped us. Because we are all Chinese, he can communicate the content in a way I understood. [Edited translation]

Similarly, Interviewee No. 4 refers to an experience in studying a theoretical subject (COMM101 – Principle of Responsible Business):

*I remember this very well when I studied COMM101 in my first semester. I don’t even know what these theories are about. After attending CABLE, I knew a bit. Later I had more understanding when coming across similar content. So, attending CABLE is useful.* [Google Translation]

I still remembered the case when I studied COMM101 in my first semester. I didn’t know the theories taught in the lecture. After attending the CABLE workshop, I started to know these theories. Later, I had a better understanding of them when I had similar content. So attending CABLE workshop is helpful. [Edited translation]

These responses indicate that the Chinese students found that attending the CABLE workshops helped them to understand the course content better, especially when language barriers made it difficult to make sense of it independently. As indicated above, Interviewee No. 2 clearly stated he understood the literal meaning of a lecturer’s in-class dialogue but found it difficult to grasp any in-depth concepts. This tendency could lead to surface learning and a predisposition to
memorisation, and ultimately lower academic performance (Booth et al. 1999). This has been identified in earlier studies (Cui et al. 2015) and is the main concern for Western academics in terms of teaching and learning among Chinese international students (Chan & Rao 2010; Ryan 2010; Saravanamuthu 2008; Watkins & Biggs 1996; 2001). This concern is reinforced by responses to Question 7, where 50% of the interviewees indicated that they learned course content by translating it into Chinese first, and 30% indicated that they relied on memorising the content to study and prepare for exams. During the interviews, Interviewee No. 1 provided an example of how he relies on rote-learning:

*Interviewer: You mentioned you always try to remember what you have learned, rather than get a good understanding. That is to say, you are more inclined to remember, not to understand, is that right? [Google Translation]*

*Interviewee No. 1: If I have enough time, I will try to understand. But when there is not enough time, I will simply memorise them. Because it is better to write more in the exam. [Google Translation]*

Thus, interview responses confirm that English proficiency is a challenge for Chinese students. This is especially so in theoretical accounting subjects, where it is more difficult for Chinese students to gain a nuanced understanding of the concepts. This is consistent with the survey findings, where nearly 45% of survey participants pointed to language barriers as a hindrance to learning effectively. It is also supported by Andrade (2006b), who identifies a reliance on rote-learning and lower exam performance for advanced and theoretical accounting subjects. Given these findings, it is suggested that successful support intervention is necessary to improve intercultural education, especially when international students’ achievements are affected by English proficiency and cultural understandings (Andrade 2006b).

Question 5 asked the students whether their study habits changed after attending a CABLE workshop, and 90% of the interviewees indicated that this was indeed the case. The changes to study habits varied: five interviewees noted that they learned how to systematically summarise content in a subject; two learned how to integrate theory with a real-life example in order to gain
a better understanding of the theory; two discovered new learning tools such as concept maps; three interviewees gained insight into study time management, and five developed more interest in studying. Interviewee No. 7 said he became more interested in studying because “I never knew you could study like that”, reflecting the inspiration generated by the CABLE leaders. Also, he recognised that:

That is, all the learning must first read the book. After reading the book, it is necessary to think and summarise. Then, listening to this lecture will make more sense. It is to change dependent on the final review. The accumulation of knowledge is normal. [Google Translation]

Reading the textbook is important. If someone can read the book, think through (the content) and summarise [the topics], then [the] CABLE workshop will be even more useful. Because you cannot just do a revision before the final exam, you need to accumulate knowledge every day. [Edited translation]

These pieces of evidence show that the CABLE workshops positively impact on the learning behaviour of Chinese students, which in turn can, to some extent, overcome some of their learning challenges. Moreover, students that participated in the CABLE workshops acquired more appropriate approaches to study and to exam preparation. The program clearly demonstrates to its Chinese student participants more effective ways to learn, rather than relying on rote-memory and translation. Further, as highlighted by Cui et al. (2015), the social engagement and student role-modelling approach adopted in CABLE can motivate students to attend and engage in formal teachings such as lectures and tutorials more often. The interview responses also reveal that the program also has a positive influence on their out-of-class learning behaviour, namely by becoming more proactive in their study habits and to engage more effectively in deeper learning strategies. The responses strengthen the view that the CABLE workshops are more than an exam-oriented “quick fix”; rather, the program has pedagogical value that is recognised by the Chinese students.

The interviewees’ responses to Questions 5 to 6, which are about lecture and tutorial participation, reveal some interesting insights. Half of the interviewees stated that, despite prior preparation,
they had difficulty engaging in lectures and tutorials because of the accents of the non-native teaching staff (that is, staff who are teaching in an Australian university but whose first language is not English). This issue is not unusual; Pacek (2005) indicates that when in an English-speaking country, international students expect to be taught by native English speakers, and when this is not the case students encounter difficulty with this form of English. Furthermore, Jensen et al. (2013) find that business students attribute better teaching to those lecturers with higher English proficiency. To compound the problem further, Robertson et al. (2000) indicate that international students have difficulty in understanding colloquial language that is often used by academics. Similarly, Littlemore (2010) suggests that international students can misunderstand the main point of the lecturer as they often focus on inappropriate connotations of the metaphorical language used by the lecturer. If the lecturer uses a metaphor which is unfamiliar to the international students, they may struggle to gain a good understanding of the content being presented by the lecturer. These language issues are prevalent regardless of whether or not the lecturers are native English speakers. Thus, it can be suggested that when Chinese students refer to “accent”, they may in fact be referring to both content and language used. Therefore, it is argued that the reason that the CABLE workshops are effective is not simply because the leader translates the English content into Chinese, but because they communicate in a way that Chinese students can better understand.

Xu (2016, p.161) examines the effectiveness of embedded cultural understandings in the context of CABLE, finding that this understanding is welcomed by Chinese students. She also identifies that teaching practices embedded with socio-cultural understandings are an effective pedagogical approach to help students better overcome language barriers. However, she also expresses concern that the CABLE workshops, when perceived as a short-cut to passing exams and in achieving qualification goals, may in fact be harmful to the learning development of students. As such, while workshop participation may to some extent, overcome the learning challenges of Chinese students, it is not without complexity and contradictions.
The interviewees’ responses also showed that they were concerned with their writing skills. For example, Interviewee No. 2 indicated one of his learning challenges related to poor academic writing skills and stated that attending the CABLE workshops helped him to improve.

_The leader will tell you some of the writing skills. That is probably not specifically a writing skill workshop. But in some workshop, the leader will mention some writing skills, so I feel quite helpful. For example, some terminology specifically used in accounting._ [Google Translation]

The leader sometimes talks about writing skills. Although CABLE is not a writing skill workshop, the leader(s) do mention (the importance of) writing skills. I feel that it is useful. For example, the leader(s) emphasises the use of accounting-specific terminologies. [Edited translation]

As CABLE exam-preparation study sessions are not essay writing workshops as such, the “writing skills” referred to are likely to be tips for improvement in the quality of written answers in exams. This overlaps with the “language barrier” issue, as poor-quality writing is likely to be exacerbated by poor understanding of the requirements of exam questions. Arkoudis and Tran (2007, p. 167) indicate that this a common problem for international students:

_The study reveals that the students’ understandings of what is required differ from the expectations of academics. …… the students were aware of the conventions of academic writing in their discipline; however, they were not sure of how to write in the required way or believed that it was not an appropriate way for them to write._

Mohan and Lo (1985) state that Chinese students often just focus on constructing an accurate sentence when attempting writing tasks, rather than developing appropriate discourse. Nisbet et al. (2005) suggest that the variations in the English proficiencies of Chinese students may be caused by different learning strategies and learner autonomy. This refers to that some student can learn independently without relying on receiving clear instructions of what to do. In summary, the difficulty in constructing exam responses may relate to inappropriate exam skills or a lack of discourse sophisticated enough to interpret and respond to questions posed. With these difficulties in mind, CABLE employs a hybrid pedagogy, including elements of the
acquisition and transmission approach\footnote{In the acquisition and transmission approaches to learning, "students are supposed to treat the teacher as a knowledge-delivering person with sufficient knowledge to teach. Chinese students are likely to accept unequal relationships between teachers and students due to the unequal distribution of power in relationships in Chinese Culture" (Xu, 2016 p41). See Xu (2016) for more detailed discussion on this approach.}, to teach students how to better respond to an exam question (Xu, 2016). This is done by being “not only focused on explaining concepts but on triggering students to think about the reasons that the lecturer chose to use specific concepts” (Xu, 2016, p.162). Also, as noted by a student who participated in Xu’s (2016) study:

\textit{[CABLE] helps me to know the internal relationship [between the concepts] to cope with the change in the exam questions. If I only memorise the concepts that [is] not helpful for the exams. But CABLE helps to set up the relationship of the concepts, [and] even if the exam questions are changed, I still know how to relate the concepts and know how to do it... Jason often says “do you know why? Do you know why the teacher talked about this concept? I will show you something to make it clear for you”. Then he will show the relationships in between step-by-step, then I will understand (p.162).}

This observation provides insight into how the CABLE workshops help Chinese students overcome the perceived “writing skill” problem, namely by providing links in the subject content and by showing relationships between concepts and terminologies used. According to Xu (2016), this pedagogical approach enables the students to establish a holistic view of the respective subject, and hence identify knowledge concepts that are central and that might be examined in the exams. This also reinforces the findings of the student survey, namely that participation in the CABLE workshops improves student skills, an influential factor in student engagement.

7.5 Essential theme three – The negative attitude of Chinese students towards other institutional programs (settings)

The third main theme to emerge from the interview responses relates to the students’ views of UOW’s institutional programs, such as regular teaching vehicles (such as lectures and tutorials) and other informal programs (such as PASS). As Kahu (2013) outlines, institutional programs, or settings, are a structural influence on student engagement, and an insight into the students’ views of these is important for understanding their level of engagement.
The interviewees’ responses to Question 4 show that the students often discussed study-related problems with their CABLE leaders (80% of the interviewees) and other Chinese students (also 80%), but rarely with teaching staff (only 30%). This may explain why academics perceive a lower level of class engagement by Chinese students, as reflected in class discussions or interactions during formal lectures and tutorials (Cui et al., 2015). Interviewee No. 8 provided further elaboration, noting that he was not able to clearly communicate his questions when meeting with a lecturer or tutor, and as such he was not confident that his message was clearly understood by them. Unlike their responses to Question 5 as discussed above, which pointed to issues around the accent of non-native teaching staff, responses to Question 4 brought up the notion that cultural differences were also a barrier to effective communication with staff. For instance, Interviewee No. 8 clearly states his preference for discussing study-related questions with CABLE leaders or other Chinese classmates, rather than academics:

“It’s because the Chinese’s logical approach is different. Because when you look at an article, sometimes content is not easily understood, especially some compound sentences. Well, CABLE leaders will explain it to you in a logical way that the Chinese can understand. [Google Translation]

It’s because the Chinese language uses a different logic. When you read an (English) article, the content cannot be easily understood, especially the compound long sentences. CABLE leaders can explain it in a logical way that is easier for Chinese to follow. [Edited translation]"

This finding is consistent with the survey findings, in that Chinese students’ identity is statistically significantly related to their motivation and self-efficacy. Chinese students are more likely to form a study group among themselves (as they come from the same ethical background) as they find it easy to communicate with each other. Also, they seek study assistance and help from the group rather than from the academics. In addition, both Xu (2016) and Cui et al. (2015) find that teaching staff express concerns about whether the CABLE workshops are seen as an alternative to lectures and tutorials, given that many Chinese students were silent during lectures and tutorials. The anecdotal evidence showed that it was not clear to the academics how well Chinese students grasped the relevant knowledge and were able to prepare for the respective exam as Chinese students did not often seek academic help and assistance from teaching staff.
Despite the fact that academics have the above concerns, it is not necessarily detrimental for international students to prefer social exchange within their own cultural groups, particularly during the transition process (Montgomery & McDowell 2009; Urban & Palmer 2014). According to Neri and Ville (2008), international students connect with their co-cultural peers to renew their social capital, an essential element to their wellbeing while studying overseas. The interview responses revealed that, in fact, students preferred to seek help from peers with the same cultural background, which supports Kahu’s framework in terms of student engagement and its relationship to social satisfaction.

Responses to Question 10 provide some additional insight into how CABLE and PASS programs are received differently by the students. Four out of the ten interviewees talked about the PASS program during the interview. They indicated that although they knew that there was a PASS program for some of the subjects that they were enrolled in, they seldom registered and participated. For example, Interviewee No. 1 clearly stated why he did not go to PASS for a subject he studied:

*I did not like the teaching method. I go to COMM121, and it is a statistical one. Then he asked us to do the questions, and after that, he writes the answers on the blackboard. Then he checked our answers, if you have no problem, it will pass. That’s it. Then I have not been there.* [Google Translation]

I did not like the teaching method. I went to a COMM121 workshop, and it is a statistical subject. The PASS leader asked us to attempt some questions, and after that, he wrote the [correct] answers on the blackboard. Then he checked our answers, [and] if no one has any questions, he will move on. That’s it. After that, I have never been to PASS again. [Edited translation]

It can be seen that interviewee No. 1 did not like the PASS teaching method, and it appears that he expected a different form of peer teaching. However, such a form of peer teaching is counter to PASS’s fundamental supplementary instruction concept, namely that re-teaching should be avoided (Skalicky 2008; Wilkinson & Brent 2019). As a point of difference, CABLE is a form of peer-led re-teaching, and is supported by academics who consider that the re-teaching process is necessary to reinforce students’ learning of key academic content. Xu (2016) adds that CABLE’s
pedagogy combines some aspects of tutoring, lecturing, and peer-learning as part of this re-teaching method. Therefore, the approach in CABLE workshops largely differs from that in a typical PASS program, in that it integrates institutional practices (re-teaching and demonstration) and socio-cultural pedagogies, and these are well received by Chinese students.

In summary, the Chinese students interviewed have a relatively poor view of university programs such as lectures, tutorials and PASS, which in terms of the Kahu framework results in weaker engagement and thus poorer academic performance. However, with attendance at CABLE, their perception of the university setting improves, engagement is enhanced, and academic performance improves. This ties in with the survey results, namely that attendance at CABLE workshops impacts student engagement levels.

7.6 Essential theme four - Student leaders vs. students

The fourth essential theme emerged from the responses of the three student leader interviewees. The responses from CABLE leaders’ were very different to the non-leaders in two areas. First, in response to Question 1, the CABLE leaders indicated that their roles have led to the development of academic skills and social satisfaction. This is consistent with the findings of other studies of peer learning programs. For example, McPhail et al. (2012) suggest that the key reason that PAL program student leaders become high achievers is that their experiences as leaders have positive influences on the development of their self-efficacy, which in turn makes them better at overcoming difficulties, engaging in the workplace, and achieving job satisfaction. Other studies suggest that the benefits of being a PAL program leader include enhanced academic knowledge, improved interpersonal qualities, development of leadership and teamwork skills, networking opportunities, and added value in their curriculum vitae (Huang et al. 2013; Skalicky 2008). The interview results in this thesis reveal personal development of CABLE leaders in terms of academic and social skills. Interviewee No. 3, for example, stated how she developed her academic skills and understanding of a subject in order to help student peers:
Well, for example, if you learn well, you might not teach well. It’s good to talk about. You must first understand the architecture or understand what this class is about. Therefore, this is also a continuous summary of this aspect and then introduces their own good experience to them. For them, it must be a way of thinking about how to give lectures. It can be said that they understand more, more efficient. [Google Translation]

For example, even if you learned a subject well, it does not guarantee you can teach it well. If you want to teach well (in CABLE workshops), you need to understand the structure of the concepts really well and have a very good understanding of what the subject is about. So, [the] CABLE leader needs to continuously summarise key aspects of a subject and transfer [their] own valuable experiences to others. We (CABLE leaders) always need to think about how to better run a workshop so they [Chinese students] can understand better and more efficiently. [Edited translation]

Interviewee No. 10 stated that her role as a CABLE leader led to the development of social skills in addition to better academic skills, noting that through CABLE she made many “like-minded friends”. She enjoyed being able to share ideas with people who are also high-achievers and care about other students. It is surmised that the intimate, friendly relationship between the leaders is an essential factor of the program’s enduring success. It is also suggested that CABLE’s on-campus and off-campus engagement with Chinese students, and its socio-cultural grounded B-PAL approach, has created an informal learning community for its members and participants (Cui et al. 2019). This notion reinforces the findings of Cui et al. (2015), who suggest that a B-PAL program not only adds value to teaching and learning but also functions as an international student social support system. This aligns with Zhao and Kuh’s (2004) finding that establishing a learning community improves student engagement and satisfaction. It reinforces one aspect of Kahu’s model, namely that a higher level of student engagement impacts student’s social satisfaction.

The second area of difference between leaders and non-leaders relates to attributes recognised in the leaders by the non-leaders. Interviewee No. 7 stated: “They [the leaders] are great. Life should be like this. I must study hard and improve every day. These leaders are about the same age as me, but the difference between us is obvious”. Similar responses expressed admiration for the leaders’ abilities, noting the impact on their own study behaviours after attending CABLE workshops. This process can be explained as vicarious learning or, in other words, a source of self-efficacy development (Bandura 1977; Beatson et al. 2018). By observing a comparable
person’s success, students are likely to replicate that person’s behaviour and strive for desired outcomes. Thus, it is proposed that by aspiring to the achievements of CABLE leaders, student participants develop self-efficacy, one of the psychosocial influences in Kahu’s framework, and this ultimately leads to better student engagement. This piece of evidence is to triangle the survey results that show that workshop participants have a higher level of self-efficacy and motivation than non-participants.

Question 3 sought to identify the aspects of the workshops that participants like, and the responses revealed differences between the leaders and non-leaders. The non-leader interviewees generally considered that students who attended the CABLE workshops were better prepared for exams and, as such, relied on CABLE for that purpose. In contrast, all three CABLE leaders thought students attended the CABLE workshops to gain a better understanding of a subject. To reinforce the different perspective of the CABLE leaders, reference is made to the response of Interviewee No. 3 (one of the student leaders) to Question 7:

I also mentioned these habits of thinking just now, so that is to say, after learning, in the process of self-study, I will think more about how to make the knowledge point into a structure diagram to facilitate understanding. [Google Translation]

I also want to talk about learning habits. After studying (in lecture or tutorial), in the process of self-study, I will think deeply [and] organise the knowledge into a concept map for better understanding [by the students]. [Edited translation]

This suggests that the CABLE leader has developed higher order cognitive skills, as well as the ability to apply learning tools (concept maps) to gain a better understanding of the academic content. This is in contrast to the non-leaders’ responses to Question 7, which revealed a reliance on translation and memory for learning academic content. At face value, this may be an indication that as a Chinese student progresses to the role of student leader, their learning moves from shallow to deep learning; a positive outcome of the B-PAL approach in improving student teaching and learning, and reinforcement of Kahu’s (2013) argument that engaged students to display a higher level of cognitive development. The differences in responses between student leaders and non-student leaders signal a progression in the learning styles of students as they move
through the CABLE program, along with personal growth and heightened social satisfaction. Student leaders appear to have honed their skills over time and through their efforts at teaching others, a notion in fact reflected in the outstanding achievements of student leaders as listed in Chapter 2.

7.7 Implications

There are two key implications of the above thematic analysis. First, it is suggested that universities with a global engagement strategy should provide opportunities to facilitate the development of strong international student communities. CABLE can be considered a viable, effective, and practical model to support international students, both academically and socially, and a vehicle for enhancing the strategic goals of a higher education institution.

Second, to ensure the CABLE workshops do not become a replacement for formal teaching opportunities, CABLE needs to establish suitable mechanisms and policies to achieve effective management and to send a clear message to the workshop participants that the workshops are a form of supplementary learning support, rather than a replacement for formal lectures and tutorials. The same might be said about PASS programs offered by the university. The interview responses reveal that Chinese students prefer CABLE workshops to PASS, on the grounds that the former is deemed to adopt more effective teaching and learning strategies. However, the CABLE leaders need to reinforce the point that CABLE should be complementary to PASS rather than a mere substitute, a consideration that is especially important if the CABLE model is to be used by other institutions. Although an examination of the university setting was outside of direct examination in this thesis, the thematic analysis points to the notion that it can influence student engagement, and from that, improved student performance.

CABLE is not without its negative aspects. Some Chinese students, rely on attending the CABLE workshops to pass the exams rather than seeking formal academic support offered by the subject coordinators. In addition, there is insufficient evidence that the CABLE program improves
Chinese students’ language proficiency which has been reported as one of the major challenges for Chinese students studying in English-speaking countries.

7.8 Chapter summary

This chapter provided a thematic analysis of the interview data, moving from a list of 25 themes to four essential themes. These themes were: first, the utility of CABLE program in terms of improving student engagement and academic performance; second, the effectiveness of CABLE in minimising the difficulties faced by Chinese students in a foreign institution; third, the ability of programs such as CABLE to overcome deficiencies in institutional programs such as PASS, and to effectively engage students and thus enhance performance; and fourth, the personal development experienced by student leaders in CABLE.

The chapter has revealed some inconsistencies between the survey responses and interview responses. For example, the path analysis of survey results indicated that by participating in the CABLE workshops, interviewees experienced an improvement in motivation, self-efficacy, and skills, which led to a higher level of engagement and, consequently, better perceived academic achievement. Such a connection was not discernable for identity and engagement, as the path analysis revealed no statistical relationship (moderated mediation effect) between the two factors. However, both open-ended survey responses and interview responses demonstrated that the Chinese community (ie. identity) is in fact important to Chinese students when they are studying overseas, and this plays heavily in their engagement. In other words, Chinese students show a strong attachment to the Chinese community and through this become engaged in the foreign context, and a program such as CABLE goes some way in developing this sense of community. Thus, the responses to the open-ended survey questions as well as those of the interview questions reveal a relationship between identity and student engagement, which was not reflected in the path analysis.

In addition, the interview responses provided more insight into the learning challenges that were
initially revealed in the survey responses, as well as effective ways to mitigate those difficulties. For example, the thematic analysis revealed an unfavourable disposition by the Chinese students to typical institutional programs such as PASS, but proposed that the approach adopted by CABLE can go some way to overcoming the issue. Essentially, the interview responses indicate that the CABLE program provides a more sensitive socio-cultural context for the Chinese students, and facilitates learning through student leader role models and more nuanced teaching and learning strategies.

The next chapter provides a conclusion to the study, which set out to evaluate the efficacy of a B-PAL program offered at an Australian regional university, especially in terms of student engagement and academic performance. At this point, the reader has been presented with data drawn from student records, surveys and interviews, and analysed through both quantitative and qualitative methods within the frame of Kahu’s (2013) conceptual framework of student engagement. On the whole, the study suggests that the attendance of Chinese students at CABLE workshops has had significant effects on their engagement and performance. The next chapter goes on to consider the ramifications of these findings, particularly for other higher educational contexts, while being mindful of the limitations of the research. In addition, suggestions for future research are made.
Chapter 8: Conclusion

8.1 Introduction
The aim of this thesis was to evaluate the effectiveness of a student support program in assisting Chinese students’ learning through student engagement, specifically through the lens of Kahu’s (2013) framework of student engagement. This framework adopts a socio-cultural approach, with attention to the influence of student psychosocial factors such as motivation, skills, identity and self-efficacy on student engagement and performance. This body of work contributes to theory, research and practice, with strong evidence to suggest that such a B-PAL program has much to offer higher education institutions who have significant enrolments of international students and who recognise a need to supplement existing support programs. More importantly though, the thesis suggests that the benefits of such a program can be significant for the educational experiences and learning outcomes of international students studying in a foreign country.

This chapter proceeds as follows. Section 8.2 provides a summary of the results and Section 8.3 details the key implications. Section 8.4 presents a discussion of limitations and suggestions for future research, while section 8.5 provides concluding comments.

8.2 Summary of the results
The education sector is the third-largest in the Australian economy, contributing up to AUD 20 billion of export revenue each year, with more than 50% coming from international students from China (Arkoudis et al. 2019; Irvine & Ryan 2019). This fact alone suggests that universities have strong economic reasons to ensure that these students transition well into the Australian context, and that their educational experiences and outcomes are positive. However, the literature clearly points to a range of learning and social issues faced by these students, including language barriers, difficult transition processes, frequent loneliness and isolation. As such, not only do universities have a strong economic reason to ensure that these students do well, but a moral obligation to first recognise these difficulties and, second, to provide adequate support services to mitigate their
effects. This imperative has become even more pronounced during 2020 with the advent of COVID-19 pandemic, and its profound effect on the university sector and international students. To this end, various programs have been introduced by Australian universities to support student learning. Generic offerings such as PASS programs are typically available in most Australian universities, but these programs are targeted at difficult subjects and not particular cohorts. They are also conducted in English and as such often fail to provide the necessary support to international students who not only struggle with the English language, but whose cultural and educational backgrounds are somewhat inconsistent with the approach adopted in PASS classes.

At Wollongong University, a student-led bilingual support program, namely CABLE, was introduced just over ten years ago to meet the specific needs of Chinese students enrolled in the Bachelor of Commerce (Accountancy major). The CABLE program offers B-PAL workshops to students for specific subjects, as well as social events to members. Kahu’s (2013) framework has been used to explore how this program has impacted on student engagement and their academic performance. Data were drawn from student records, surveys and interviews, and examined through a mixed methods approach, adopting both quantitative (statistical analysis including t-test and path analysis) and qualitative (thematic analysis) methods.

The research was designed around three particular research questions:

RQ1) To what extent does participation in CABLE program improve student engagement and academic performance?

RQ2) Which student engagement factors have the most influence on engagement and perceived academic performance of the CABLE program participants?

RQ3) What motivates Chinese students to participate in the CABLE program and what is their experience and perceptions of the workshops?
Each of these questions, along with their responses, will be addressed in the following.

8.2.1 To what extent does participation in CABLE impact on student engagement and academic performance?

This question was explored through an examination of Chinese student attendance and academic records for the period 2011-2016. T-tests provide evidence that there was a significant difference between the means of average grades obtained by workshop participants and those of non-participants. These tests also revealed a significant positive relationship between workshop participants and the level of student engagement. These results provide a preliminary indication of the effectiveness of the CABLE program in engaging Chinese students and improving their academic performance in selected subjects.

8.2.2 Which student engagement factors have the most influence on engagement and perceived academic performance of the CABLE program participants?

This question was explored through a path analysis of student psychosocial factors, student engagement and perceived academic achievement as revealed in data from the student survey. The path model is used as an analytical procedure to capture the correlational and experimental relationship of these variables. The first path model demonstrates the direct and indirect effect between psychosocial factors and student engagement and perceived academic performance. The result shows that student engagement has a partial mediation effect on motivation, self-efficacy and perceived academic performance, and a full mediation effect on skills and perceived academic performance. However, no mediation relationship can be concluded between identity and perceived academic performance.

The second path model explores the impact of CABLE participation on student psychosocial

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As discussed in Chapter 5 Section 5.4.3, the perceived academic performance is used instead of actual academic performance.
factors, and ultimately the impact on student engagement and perceived academic performance. The result shows that workshop participation moderates the indirect effect of motivation, self-efficacy and skills on student engagement. No evidence is found for the moderated mediation effect of workshop participation between identity and student engagement.

In the second path model, motivation has a negative relationship with student engagement for non-participants and a positive relationship for participants. This reveals the positive influence of CABLE workshop attendance on students’ learning, and ultimately on their perceived academic performance. The positive impact of motivation also leads to the impact on self-efficacy, as motivation is the explicit explanation of self-efficacy. This finding concerning self-efficacy reinforces the findings from previous studies (Linnenbrink & Pintrich 2003; Sun & Rueda 2012; Zimmerman 2000), namely that it is an influential factor in student engagement. Participation in CABLE workshops magnifies the positive relationship, as the participants develop self-efficacy by observing and replicating positive behaviours of the CABLE leaders. In addition, CABLE workshops help participants develop study skills, which contribute to improved perceived academic performances. The findings of the path analyses are consistent with the results of open-ended survey questions, particularly as they concern improvements that flow from participation in CABLE workshops: more in-depth of learning, improved exam techniques and a widening of learning skills.

Although the path analysis provided no evidence of a relationship between identity and student engagement, the open-ended survey responses and the interview responses suggested otherwise. The latter indicates that Chinese students showed a strong attachment to the Chinese community and a strong willingness to participate in the CABLE workshops. Thus, there is some indication that identity plays an important part in engaging students in the Chinese community, but further research is warranted in this area. In summary, Chinese accounting students who participate in CABLE workshops have a higher level of motivation, self-efficacy and skills than non-participants and, consequently, a better engagement level and perception of their academic
8.2.3 What motivates Chinese students to participate in the CABLE program and what is their experience and perceptions of the workshops?

This question was addressed through a thematic analysis of the responses to open-ended survey questions and interview transcripts, with particular attention to psychosocial influences, student engagement and perceived academic performance. This data firstly reveals the difficulties faced by Chinese students (such as language barriers, problems with academic writing, inappropriate approaches to learning and exam preparation), which is consistent with the literature on Chinese students studying in a foreign context. The results of the analyses suggest that participation in the CABLE program was positive for the Chinese student participants and helped them to overcome some of the abovementioned difficulties. It appears that motivation to participate in the CABLE program relates to the socio-cultural pedagogy adopted, and its suitability for the Chinese learner.

Guided by high achieving CABLE leaders, the student participants were better able to understand subject content that was framed in terms of Chinese language, culture, experience and conceptualisations. CABLE leaders were able to provide appropriate interpretations of Western theoretical and philosophical concepts, central to an understanding of subject content, as well as to clarify issues that subject lecturers and tutors had not made clear to students. Over time, student participants modified their approach to learning, from one based on shallow rote learning to a deeper appreciation of content and skills. Most importantly, the dialogue around the foregoing was conducted in the students’ first language, Mandarin, when necessary. As discussed earlier, bilingual education allows for enhanced communication, improved understanding of complex issues and scaffolded learning. Essentially, it appears that CABLE’s pedagogical approach, which is student-centred, student-led and culturally sensitive, provides students with an opportunity to improve their learning skills and the acquisition of knowledge, which consequently improves academic performance.
Overall, this thesis empirically corroborates the relationship between the antecedents of student engagement and the proximal consequences, enriching our understanding of the importance of student engagement, and its impact on student learning.

8.3 Research implications

This research has several important implications. The first is in relation to student learning and living experiences. In the context of an internationalised higher education system, it is important for universities to provide support programs to assist students’ learning and living experiences, particularly international students. The CABLE program’s B-PAL workshops are effective in enhancing student engagement and consequently, improving student academic performance. It has been shown that the integration of bilingual instruction with a sociocultural pedagogy, peer-assisted learning, and a social support program can effectively streamline the transition of international students into a foreign context and improve their learning experiences, and ultimately operate as a critical factor in their academic success. At present, the existence of such B-PAL programs is rare in the higher education sector, but as this thesis emphatically demonstrates, such a program can be very effective in terms of student learning, and highly appropriate for contexts beyond the Faculty of Business at UOW.

Second, improved experiences and outcomes for international students also feed directly into institutional funding, strategies and metrics. As mentioned earlier, many Australian universities are economically dependent on international students, and the new performance-based funding model for higher education (Commonwealth of Australia 2019), specifically points to the importance of student retention rates. It makes sense then for Australian universities, particularly as they endeavour to remain financially viable in the post COVID19 world, to be particularly aware of, and responsive to, the needs of international students.

Third, this thesis provides empirical support for Kahu’s framework of student engagement as
reproduced in Figure 8-1. To date, the framework has been used in a limited sense, with Kahu herself calling for “more research…to further explore the relationships within the framework to strengthen our understanding of each element” (p.769). While this thesis did not incorporate an examination of all aspects of the framework (it excluded structural influences and institutional psychosocial influences), it has provided empirical support for relationships between student psychosocial influences, student engagement factors, academic performance and social satisfaction (as bounded by the green dotted line in Figure 8-1). Kahu (2013, p769) also highlighted the need for research projects that focused on narrower populations to avoid overgeneralisations, and in this respect, the current thesis has done this. The findings on the CABLE program provide an indication that such a B-PAL approach may be highly effective for specific international cohorts in other higher education institutions.

Figure 8-1: Kahu's (2013) student engagement conceptual framework

Fourth, this thesis has drawn on a number of survey instruments and the research literature to develop a unique survey tool. This tool integrates aspects of existing student experience questionnaires with student engagement perspectives, and effectively captures factors outlined in
Kahu’s framework (motivation, self-efficacy, and skills). The successful validity and reliability tests of this instrument point to the potential for it to be used in situations which require a comprehensive analysis of educational contexts or approaches.

Fifth, the thesis confirms the analytical and explanatory power of a mixed methods approach. While a quantitative analysis of student records and surveys established links between a range of influences, factors and outcomes, the qualitative analysis of student interviews and responses to open-ended survey questions provided a richer insight into these relationships, as well as bringing the student voice to the analysis. In the Western university context, it is so easy to overlook the voice of those whose first language is not English, and which in many cases lacks the sophistication to firstly engage effectively in the education system and, secondly, to communicate their experiences to those who are in a position to change learning and teaching practices. During the course of the interviews, students provided positive comments on their experience with CABLE workshops.

I feel more comfortable after attending the workshop when hearing other Chinese students like me succeeded in the degree. The leaders are good real-life examples. Interviewee No. 6

I also want to talk about the change in my learning habit. After attending the workshop, in the process of self-study, I will think deeply and organise the knowledge into a concept map for better understanding. Interviewee No. 10

The leaders are great. Life should be like this. I must study hard and improve every day. These leaders are about the same age as me, but the difference between us is obvious. Interviewee No. 1

I learned that we should not memorise the tutorial solutions. If the question changes in exam, I might not be able to answer it if I only memorised the answers. We need to have own understanding of the important knowledge. Interviewee No. 5

What I feel is helpful, especially in understanding theoretical concepts, is the student leader will use relevant examples in China, and then integrates with the theory, this helps us to understand better. We are not very familiar with cases that happened in foreign countries, or the scenarios only appeared in a paper. Sometimes the CABLE leader will connect [these cases/scenarios] to things that happened in China. This establishes a relationship, make me understand better. Interviewee No. 9 [Edited translation]

Sixth, the thesis adds to the existing literature on the Chinese student learner, peer support
programs and bilingual programs in the higher education context. The data obtained confirmed the difficulties faced by international and, specifically, Chinese students studying in a foreign university. The multi-layered analysis has brought together the different arms of the literature, as well as provided a comprehensive view of a multi-faceted or integrated approach that may be used to enhance the educational experiences of international students. This contribution provides a useful starting place for institutions and educators who are interested in improving the experiences of their international student cohorts.

Last but not least, the thesis has shown that CABLE leaders who are actively involved in delivering student social activities and B-PAL workshops have benefitted enormously from their roles. They have developed their own academic and interpersonal skills in their roles as CABLE leaders and peer mentors. Their interviews responses recognised the development of higher order cognitive skills, and reflected the personal satisfaction of acting as role models to inspire or motivate other students. Positive outcomes such as these have been reflected in the number of awards and recognitions that CABLE leaders have received over the term of its existence.

8.4 Limitations and future research

Although care has been taken in the research process, this thesis is not without limitations. The research design examines a causal relationship between CABLE workshop participation and actual academic performance. Due to restricted access to other key students demographical and personal data, such as English test results, university entry pathways and academic performance for prior studies, it was not possible to establish a robust regression model to test the possible causal relationship. However, using a combination of viable methods (namely path analysis and thematic analysis), this thesis does confirm the association between CABLE workshop participation and student performance.

Interviews with non-CABLE participants were not conducted. Of the total 205 respondents to the survey, only 16 indicated their willingness to be interviewed, and from this latter group, ten
students were selected. Due to the limited timeframe, the author was unable to conduct a second round of separate interview invitations in order to recruit more interviewees. Thus, the interview data concerns only those who participated in CABLE workshops and may overlook alternative perceptions of CABLE and other support programs.

Third, this research examines the effectiveness of the CABLE program through a specific student engagement framework, and as such, is shaped by the contours of this framework. Due to a variety of research constraints, the study did not extend to full use of the framework, so factors such as institutional teaching and learning practices, policies or culture were not explored. Similarly, the researcher was unable to extend the research into the personal backgrounds of the participating students, such as family background and support. As with any research subject, the possibility for using a different research lens is always there, and with this acceptance of an alternative narrative.

A further limitation of the study is that it does not conduct a comparison, except in an incidental way, with other student support programs such as PASS. During the course of survey completion and interviewing, students had the opportunity to touch on other programs such as PASS, but comparison was not made in any formal way in this thesis. A more rigorous comparison of two student support programs would serve to highlight similarities and differences, and enhance our understanding of the different approaches to student learning support. Such a study could point to a student support program which captured the benefits of both, and ultimately be of use to universities who have significant international student cohorts. We are currently witnessing a fundamental shake-up of the higher education in Australia, firstly through the effects of the COVID19 pandemic and, secondly, through changing Federal government policies (Australian Government of Department of Education and Employment 2020; Hunter 2020). With this, universities are engaging in substantial rounds of cost-cutting and strategic realignments, so any student programs that can incorporate a range of support mechanisms, and do this in a cost-effective manner, are likely to be attractive to the universities. As such, comparative research would be useful to universities operating in the current context.
Another limitation relates to the research context. Although the research is longitudinal in nature, its scope is within a single faculty within a single institution. The survey responses were collected from 205 Chinese students, and only ten interviews were collected. This is consistent with Kahu’s request to engage in detailed and context-specific research, but it does mean that the conclusions are particular to one program. However, there is scope for the research findings to be used as a guide for the analysis, or to underpin the development of, similar programs. Such research could be used to confirm the more general applicability of the B-PAL approach to student learning. As mentioned in Chapter 2, the CABLE program has more recently developed into an internationalised student support program that caters to students from many different cultural backgrounds, so an opportunity to investigate the efficacy of this with other international student cohorts is ripe.

Lastly, this research embraces Kahu’s (2013) framework. However, this framework has been more recently refined in Kahu and Nelson (2018) by the incorporation of an additional component (educational interface) that relates to students’ experience, interests, and enthusiasm. Given that the current research project was more or less completed by the time this new framework was released, the modifications have not been incorporated. Future research into student engagement could be more nuanced with reference to this improved framework.

8.5 Concluding comments

Through the lens of Kahu’s framework of student engagement, this thesis has highlighted the influence of various factors on the educational experiences and outcomes for the Chinese students. The framework and the insight gained may prove to be useful for other researchers who are interested in exploring such issues in a range of educational contexts. While the existing educational literature is broad and rich, this particular study brings together different branches to form an integrated account of the Chinese learner in a foreign context, supported by peer-assisted and bilingual education.
This thesis has provided evidence that the CABLE program offered at the University of Wollongong has improved the educational experiences of a select group of Chinese students. These students, along with a broader group of international students, face significant impediments when studying in a foreign context. Given the importance of international students to the Australian economy and the higher education sector, their host universities also have an economic imperative and a moral responsibility to understand the plight of these students and to offer appropriate support mechanisms. CABLE is one such program which attends to the specific educational and social needs of international students, integrating aspects of peer-assisted learning and bilingual education into a sociocultural framing. It is suggested that this model would be easily adapted to other student cohorts. Such a program is also relatively free of institutional and faculty processes and policies, and as such able to operate with agility and foresight. As indicated in Chapter 1, the CABLE program was able to respond almost immediately to the unfolding situation of COVID19 and provide timely and much-needed advice and support to international students. The experience of student organisers and leaders, and their connection with the Chinese community through platforms such as Wechat, enabled an immediate response that could not be replicated by the university in a relatively short period of time.
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University of Wollongong 2020, ‘2020-2025 Strategic Plan’.


Appendices

Appendix 1

Letter from Associate Dean (International and Accreditation), FOB, UOW

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**Head of Unit/Subject Coordinator Report**

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<tr>
<th>Head of Unit (Faculty or Professional Staff)</th>
<th>Subject Coordinator (Sessional Staff)</th>
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<td>- Any curriculum development or teaching initiatives undertaken</td>
<td>- Contributions to the subject team</td>
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<td>- Any other relevant activity</td>
<td>- Participation in career development activities (formal or informal)</td>
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<td>- Any presentations or publications on teaching practice or other relevant activity</td>
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Name of OCTAL Nominee: CABLE

Head of Unit/Subject Coordinator: A/PROF. GARY NOBLE

Location: Wollongong Campus

Signature:

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**Report**

Can I highly commend to the Committee the application of the Chinese Academic Business Learning and Education (CABLE) group for the awarding of an OCTAL award.

This group offer Chinese students in the Faculty of Business the opportunity for both academic support, through a peer led mentoring program, and also offers these same students social support through a variety of social activities such as badminton tournaments.

A key element of the CABLE group is that it is a student led and initiated program. The students themselves have developed the concept and run the programs which stretch across 20 or more subjects. The program started with just 5 'student leaders' in 2010 and now has 25 'student leaders' and delivers programs to over 1000 students each session at both undergraduate and postgraduate level.

The program differs from programs such as PASS in that it is organised and run by students themselves with minimal Faculty assistance. This creates a sense of ownership of the program by the students both those receiving the peer mentorship and the mentors themselves. Another feature of this program that distinguishes it from PASS is that the academic mentorship operates in an informal atmosphere and in a bi-lingual manner. This manner of delivery results in students feeling more relaxed and open to tuition and able to ask questions of the subject material they may not have asked in a more formal lecture or tutorial environment. The ability to discuss often complex concepts in Chinese allows the students to fully grasp the nuances of the concepts and relate them to their own cultural background and sense of reality thereby making the concepts 'more real' than if presented in a, sometimes 'blunt', Western manner.

The critical element of CABLE is that the concept and model works. This is clear from the research undertaken by the group on the performance of CABLE students against other Chinese students in the same subject (refer to details in the CABLE OCTAL Application) where the average mark of CABLE students was higher than non-CABLE Chinese students. Further evidence that CABLE is working is the growing demand by students for the expansion of CABLE into more and more subjects. CABLE works because it responds to the type of learning environment the students want. Its pedagogy has been the subject of several academic papers and is being examined at a doctoral level.

In conclusion, I thoroughly support the application of the CABLE group for an OCTAL award. This is a deserving group of dedicated students and Faculty who from nothing have developed a concept of peer mentoring that builds learning in a group of students that are often neglected in their needs. It also goes beyond just providing learning support it also provides social support and in so doing adds further to each student's overall welfare and in turn, their ability to learn.

Note: this Report was completed by the Associate Dean (International) as this program operates across all Schools in the Faculty of Business.
Appendix 2

Letter from Senior Lecturer, FOB, UOW

To Whom It May Concern:

Re: 2015 Vice-Chancellor’s Awards for Outstanding Contribution to Teaching and Learning
Nominee:
Chinese Academic Business Learning and Education (CABLE)

It is with great pleasure and without reservation that I write in support of the application of the Chinese Academic Business Learning and Education (CABLE) (formerly known as the Chinese Commerce Academic Development Group (CCAD)) for a 2015 Vice-Chancellor’s Outstanding Contribution to Teaching and Learning (OCTAL) award. I have coordinated FIN222 Corporate Finance since 2008. When the CABLE was first formed in Autumn 2010, FIN222 Corporate Finance was one of the subjects in which the group decided to provide support to Chinese students. Their support has continued since then. My interaction with the group leaders allowed me to learn their motivation for and approaches to student learning support.

What I value most in the CABLE is the group leaders’ willingness for personal sacrifice and ability to take actions to support student learning by maximising the use of their academic excellence. At the inception of the CABLE in Autumn 2010, the program’s objective was clearly known which was “to help Chinese students academically in accounting, finance, management and other relevant majors through the provision and sharing of experiences of studying and living overseas. The priority is to help Chinese international students in their first year of study overcome early stage difficulties in an effort to reduce failure rates and improve retention rates.” Based on both my first-hand experience with the program and feedback received from the students who experienced the program, I believe that the group has been serving its purpose with integrity and perseverance. I find their approaches to student learning support well-prepared and systematic. Focusing on mid-session and final exam revisions, the CABLE’s delivery materials for FIN222 Corporate Finance evidently reflected the ability to prepare learning materials in a relevant and helpful manner. The CABLE has also been an important source of feedback for me to learn and evaluate how the subject is received by Chinese students each session.

It has been inspiring to watch the growth of the program which would not have been possible without time and effort dedicated by the group leaders. The importance of their collaborative effort is felt through both additional academic instructions and personalised attentions made available to students. Recognising and embracing the needs of Chinese students in academic learning, the program also exemplifies respect and concern for diversity in learning.

I believe that the contribution of all leaders in the CABLE to understanding and facilitating Chinese student learning in Faculty of Business has been significant and that their helping hearts are worthy of recognition. I have no reservation in supporting the application of the CABLE for an OCTAL award.

Yours Sincerely

Aecie Jun
Senior Lecturer in Finance
School of Accounting, Economics and Finance
Faculty of Business
University of Wollongong
Appendix 3

Email from Professor and Postgraduate Accounting Program Director, FOB, UOW

Dear Kevin,

I would like to express my congratulations on the OCTAL nomination for CABLE. Over the past years I have witnessed CABLE move from a grassroots organisation to fill a need for peer learning in the Faculty of Business (then Commerce). CABLE has moved from strength to strength to become an invaluable support for both undergraduate and postgraduate students. Whether this is as a mentor or mentee. As discipline leader for four (4) years I can attest to the difference CABLE has made for those attending sessions, but more importantly for the 'army' of students that provide peer mentoring and support.

Regards,

Lee

Dr Lee Moerman
Professor of Accounting
Faculty of Business | 40.314
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University of Wollongong CRICOS: 001102E
Your feedback is appreciated and can be submitted at feedback@uow.edu.au
NOTICE. This email is intended for the addressee name and may contain confidential information. If you are not the intended recipient, please delete it and notify the sender. Please consider the environment before printing this email.
Appendix 4

Letter from Prior Executive Dean, FOB, UOW

OCTAL Awards

REPORT – HEAD OF UNIT/COURSE COORDINATOR

Teaching Grants and Awards
grants-awards@uow.edu.au

☒ Head of Unit (Faculty or Professional Staff) ☐ Subject Coordinator (Sessional Staff)

Please comment on aspects of practice such as:
Teaching surveys or peer reviews
Approaches to teaching and methods in the classroom or lecture theatre
Any curriculum development or teaching initiatives undertaken
Any other relevant activity

Please comment on aspects of practice such as:
Teaching surveys or peer reviews
Approaches to teaching and methods in the classroom or lecture theatre
Contributions to the subject team
Participation in career development activities (formal or informal)
Any presentations or publications on teaching practice or other relevant activity

Name of OCTAL Nominee:
Chinese Academic Business Learning & Education (CABLE)
Location: Wollongong/Sydney Business School

Name of Head of Unit/Subject Coordinator:
Prof. Charles Areni (Executive Dean, Faculty of Business)
Signature:

REPORT (maximum one A4 page):

In 2010, the Chinese Academic Business Learning & Education (CABLE) was founded by a group of high-achieving Chinese students and formally established as a Faculty-based student club in 2014. At present CABLE includes more than 50 student leaders, including domestic students, Chinese and other international students. Moreover, a group of UOW alumni actively participate in the program’s activities.

CABLE is all about improving the academic and social experiences of its members. CABLE’s main academic activity, the peer-led workshops, attracts between 700-1000 participants per calendar year. On average, approximately 70% of the Chinese students enrolled in a subject attend CABLE’s bilingual workshops. The English workshops have also been popular among Faculty of Business students in general.

CABLE also hosts many social/sports events every year, including badminton competitions, table tennis competitions, professional badminton coaching, networking BBQs, and trivia competitions, to enhance student’s health, wellbeing, and university experience. The idea is to embed CABLE members in UOW student life beyond the classroom. As recognition of its excellent academic and social programs, CABLE received UOW’s Club of Year Award in 2018, and the Student Development Award in 2016 and 2019.

CABLE members consistently express very positive attitudes towards the various programs in both informal feedback and survey-based research, indicating the program provides both academic benefits and social support for their university career. In addition, many of CABLE’s student leaders have gone on to receive prestigious prizes and awards including HDR scholarships, the University medal, and the Chancellor’s Memorial Prize.

In addition to providing fuller, more rewarding, university experiences to its members, CABLE also produces pragmatic academic outcomes. Faculty research shows that CABLE members have much lower rates of attrition compared to the Chinese student population in general, with attrition rates of only 2.4% (UG) and 3.6% (PG) compared to 8.6% (UG) and 11.4% (PG) for non-members. Moreover, CABLE
members also achieve significantly higher WAM’s than the student population in general, with UG members showing a 5.6% increase and PG members a 4.4% increase.

Given these excellent academic outcomes, CABLE featured prominently in the Faculty of Business achieving full, five-year accreditation by the Association to Advance Collegiate Schools of Business (AACSB). AACSB accreditation Standards 4, 10, and 13 deal with student progression, student-faculty interactions, and student academic and professional engagement, respectively. Given its successful academic and social programs, CABLE featured prominently in the Faculty’s submission regarding how we promote and manage these important aspects of the student experience.

Not surprisingly, the Faculty of Business actively promotes CABLE to students, and refers struggling students to seek mentoring assistance from CABLE’s academic programs. Further, the Faculty of Business has proactively worked with students to establish new student clubs as part of a strategy for managing student attrition rates. These additional student clubs are based on nationality (e.g., India), specific degree programs (e.g., Master of Supply Chain Management), or common career interests (e.g., marketing), but are designed to mirror many of the successful academic and social programs established by CABLE.

Overall CABLE has committed to continuously supporting the students in Faculty of Business, remains voluntary-based, student owned, and financially independent, and is committed to high academic standards and ethics. The program actively engages with other peer-mentoring programs (BIPMN, PASS, GCP and ITAP) to enhance the mentoring network and culture in UOW.

In ten years, CABLE has gone from being a good idea initiated by a group of students, to the foundation for a strategic initiative of the Faculty of business, involves Chinese students, non-Chinese students, alumni, academic staff and professional staff, and leads to positive academic and social outcomes for its members. CABLE has been a profound and resounding success!
Appendix 5
Letter from Dean, Sydney Business School, FOB, UOW

27 January 2020
To the Octal Review Panel
University of Wollongong

Reference in support of the Octal Team Award for The CABLE Team

I am delighted to recommend the CABLE Team for their sustained Outstanding Contribution to Learning and Teaching at the University of Wollongong since 2010.

CABLE is a distinctive academic peer support program, student founded and student-led, which provides support to students studying accounting and finance subjects. CABLE leaders are clear on their role and do not usurp the role of the lecturer, instead they coordinate closely with academic staff to ensure that they cover appropriate material to help students succeed in those often challenging subjects, using well known Chinese companies to help students understand relevant concepts. They also coordinate with other programs such as Pass and the Business International Peer Mentoring Program so that CABLE complements and does not compete with these programs.

CABLE's approach, which incorporates social activities such as badminton, recognises the importance of feeling part of a community and providing peer support so that each student feels that they belong. The workshop approach helps students develop their competence, confidence and self-efficacy. The evidence shows that attending CABLE helps students improve their academic performance. Realising that other students have also found certain concepts difficult is reassuring and encourages students to continue.

Since 2010, over 800 students have attended CABLE workshops. The workshops cover topics in over 20 subjects, including undergraduate and postgraduate at both Sydney and Wollongong campuses. Initially focused on assisting Chinese students, the mix of students in the faculty has broadened over time and CABLE now supports all students. All CABLE workshops for postgraduate students in Sydney Business School are provided in English. This assists students with other subjects for which there may not be a CABLE workshop. It is not easy to ensure the survival of a student-founded society beyond the initial founders. It is to CABLE's credit that they have always focused on sustainability and with this in mind, have developed the leadership and mentoring skills of student leaders, with over 50 student leaders currently active as role models. Thus CABLE's impact is not only on students' academic performance but also on their leadership skills.

International students can struggle for various reasons. CABLE helps all students by offering workshops that are inclusive, student-led, and student-focused. Their supportive approach gives students an additional opportunity to raise issues they are concerned about in the confidence that they will be listened to respectfully and given advice by others who have succeeded in the same academic program. This helps with transition to study in Australia. The data shows that attending CABLE workshops improves retention, a major strategic focus, particularly in Sydney where students can choose between many different providers of the Master of Professional Accounting.

I am grateful to CABLE for their on-going support for our students and commend their application to the Panel.

Professor Grace McCarthy, Dean, Sydney Business School, Faculty of Business, University of Wollongong

Sydney Business School, Building 40A
University of Wollongong
2500 2020 Australia
P (+61) 24221 4830
sydneybusinessschool.edu.au CRICOS Provider NO. 00102E
Appendix 6

Ethics Application Approval

Tuesday, 14 February 2017 2:48:27 pm Australian Eastern Daylight Time

Subject: HREC Approval of Application 2016/915
Date: Wednesday, 1 February 2017 1:44:59 pm Australian Eastern Daylight Time
From: irma-support@uow.edu.au
To: reetu@uow.edu.au
CC: schapple@uow.edu.au, Jin Cui, reetu@uow.edu.au, rso-ethics@uow.edu.au

Dear Dr Verma,

I am pleased to advise that the application detailed below has been approved.

Ethics Number: 2016/915
Approval Date: 07/02/2017
Expiry Date: 06/02/2018
Project Title: Evaluating the effectiveness of a Bilingual Peer Assisted Learning Program for Chinese Students in a Higher Education Context
Researchers: Chapple Sandra; Cui Jin; Verma Reetu
Documents Approved:
- HREC Initial Application 23/10/2016
- HREC Response to Review 06/02/2017
- Participant Information sheet survey V10 06/02/2017
- Participant Information Sheet - interview V10 06/02/2017
- Survey V10 19/12/2016
- Student Consent Form - survey V10 06/02/2017
- Student Consent Form - interview V10 06/02/2017
- Letter of Approval - Subject Coordinators
- Letter of Approval - SSD 21/12/2016
- Email Invitation V9 19/12/2016

Sites:

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<th>Site</th>
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<tr>
<td>University of Wollongong</td>
<td>Dr Reetu Verma</td>
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The HREC has reviewed the research proposal for compliance with the National Statement on Ethical Conduct in Human Research and approval of this project is conditional upon your continuing compliance with this document. Compliance is monitored through progress reports; the HREC may also undertake physical monitoring of research.

Approval is granted for a twelve month period; extension of this approval will be considered on receipt of a progress report prior to the expiry date. Extension of approval requires:

- The submission of an annual progress report and a final report on completion of your project.
- Approval by the HREC of any proposed changes to the protocol or investigators.
- Immediate report of serious or unexpected adverse effects on participants.
- Immediate report of unforeseen events that might affect the continued acceptability of the project.

If you have any queries regarding the HREC review process or your ongoing approval please contact the Ethics Unit on 4221 3386 or email rso-ethics@uow.edu.au.
Yours sincerely,

Associate Professor Melanie Randle,
Chair, UOW & ISLHD Social Sciences Human Research Ethics Committee

The University of Wollongong and Illawarra and Shoalhaven Local Health District Social Sciences HREC is constituted and functions in accordance with the NHMRC National Statement on Ethical Conduct in Human Research.
Appendix 7

Number of students enrolled in each subject from 2011 to 2016 with reference of CABLE workshop attendance

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